



**DISTRICT
HUMAN
DEVELOPMENT
REPORT
BANKURA**



**DEVELOPMENT & PLANNING DEPARTMENT
GOVERNMENT OF WEST BENGAL**

District Human Development Report : Bankura

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Government of West Bengal

First Published
April 2007

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Back Cover Photograph : Manasha Ghat

Published by
HDRCC
Development & Planning Department
Government of West Bengal

Setting and Design by
S P Communications Pvt Ltd
294/2/1 A P C Road
Kolkata 700 009

Printed by
Shishu Sahitya Samsad Pvt Ltd
32A A P C Road
Kolkata 700 009
Type Set in Baskerville

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FOREWORD

"Human Development" as a distinct concept developed in the 80s. The basic feature of our understanding of the concept is not, however, confined to abstract ideas. Just as poverty is multidimensional, so are the processes of human self realisation and social progress. It is, therefore, imperative that economic policies are so structured as to attain the twin objectives of human self realisation and social progress based on the contemporary realities as well as the aspirations of the future generations. What is again important towards attainment of these objectives is an "inclusive approach". It is the participatory mode that is crucial to the success of the whole process of human development. This is a process that is qualitatively and substantially different from the conventional process. Human development is about people, about expanding their choices and enhancing their capabilities. It seeks to unfold opportunities for the people, particularly those living at the bottom, to live a decent, healthy and fulfilling life.

The policies and programmes of the State Government over the last three decades have been directed towards creating conditions for the people where full flowering of human capabilities becomes a reality. Efforts of the State Government have been reinforced by spontaneous and overwhelming support of the people. It is basically the involvement of the people in the development process that has significantly contributed to improvement of human development indices of the State. Our 11th Plan's focus is also on wider participation of the people in consonance with the essence of inclusive approach—the approach that will manifest itself in the whole range of activities of the Government.

The State Government in the Development and Planning Department in partnership with the United Nations Development Programme (UNDP) and Planning Commission of India took the initiative of preparing the first Human Development Report of the State and published it in May 2004. The West Bengal Human Development Report, 2004 received wide acclaim from different cross sections of the society. It also won UN Award for its dispassionate quality of analysis and richness in content. Our initiative to prepare District Human Development Report (s) is an attempt to make an in-depth study and analysis of the quality of life of the people as well as to identify the areas where we need to intervene for enhancing their capabilities and to effectively address the grey areas.

It is a matter of great satisfaction that UNDP and the Planning Commission of India have come forward to support our initiatives. We have been able to finalise the District Human Development Reports of Malda and Bankura districts. Shri Prabhat Kumar Mishra, IAS, now District Magistrate, North 24 Parganas (formerly District Magistrate, Bankura) took the pioneering role in preparing the report of the Bankura district. The report is the product of wider interactions and participation at various levels as will be evident from its approach and content. I record my deep sense of appreciation of the painstaking efforts of the entire team of officials of the Development and Planning Department in preparing this Report. I also put on record my sincere gratitude to the people's representatives at different levels and the officials of Bankura district who have contributed directly or indirectly to the process of preparing the District Human Development Report. All these efforts will, however, prove meaningful if this Report can in any way help attainment of our twin objectives - human self realisation and social progress.


| Nirupam Sen |

Preface

The objective of all the interventions is to bring in human development. A district human development report has to basically address the issue of formulation of a strategy, which will accelerate the pace of human development. Therefore, the objective of the present exercise is to build up a developmental path, which will address human development in Bankura. Normally a human development report covers three aspects related to human development—standard of living, health and education. Broadly the same format has been maintained in this exercise. However, a separate chapter has been kept for gender issues. The issue of vulnerability also requires special attention since it is not just the state and level of human development that matters. The capacity of people to cope with unfavourable circumstances and respond to adversity is equally important. In other words, vulnerability of a human being has to be reduced parallelly with the advancement on the ladder of human development.

When we talk of building of a strategy, all concerned who are expected to participate in its execution must be involved at the formulation stage. In other words, the whole exercise has to be participatory in nature. An attempt has been made to involve all the line departments in this exercise. At the same time other stakeholders have also been involved in identification of the bottlenecks and solutions. We have included a large number of case studies to capture the success stories from the district itself that can be scaled up to accelerate the pace of human development.

The formulation of Human Development Index (HDI) has not been attempted here. In the process of formulation of a strategy, intra-district scenario needs to be brought out. The quality of data varies from district to district and if the usual data available at the district level is used to formulate the HDI, the comparison across district may become erroneous. Since quality of data within a district is likely to be similar, a comparison within a district may provide us a relative picture of progress and a comparison of blocks over conveniently defined indicator will not be off the mark. In any case using the normal HDI formulae may not be able to capture the specific nuances and barriers to human development in different parts of a district. Since we need to build a strategy we should use a framework, which is flexible enough to capture the specific need of the district in terms of human development. HDI formulation is rather complicated and is difficult to comprehend, say, for panchayat level functionaries who are likely to participate in execution of schemes in the process of human development.

Considering the above, the Human Development Radar has been attempted which may be helpful. It is easily understandable and the weak areas can be quickly identified. In addition ,the indicators may be selected as per the district specific issues.

This exercise started with a district level workshop involving all the line departments, Panchayat functionaries and other government officials. One expert group was formed for each area in human development at the district level consisting of government officials, Panchayat functionaries, representatives of non-governmental organisations (NGO) and representatives from academia. Based on the issues highlighted in the district level workshop weaker pockets under each sector in the district were identified. This was followed by sample surveys and focused group discussions involving all the stakeholders in these areas. Block-level workshops were organized on block-specific weaker areas of human development. This helped in identification of barriers to human development under each area in this district. The process of documentation was initiated thereafter. Specific studies were also initiated by various research

groups and findings have been incorporated. The draft report was presented again at the district level involving all stakeholders before finalisation.

I put on record my sincere thanks to all who have been involved in this exercise. Natural Resource Database Management Systems (NRDMS) Centre, Bankura provided the basic data to initiate the exercise. I believe NRDMS may act as the final repository of all data which may be updated from time to time. Blocks may act as the nodal point for collection of all data at the grassroot which may be fed to NRDMS from time to time. I am grateful to the officers of the line departments including the departments of Land, Forest, Agriculture, Animal Resource Development, Fisheries, Agri-irrigation, Public Health Engineering, Khadi and Village Industries, Sericulture, Handloom, Education, Health, Social Welfare and Bureau of Applied Economics and Statistics. I was assisted by a dedicated band of officers from the Bankura collectorate which included Sri Soumitra Sengupta, Sri Partha Ghosh and Sri Biswajit Barat, Centre-in-Charge, NRDMS, Bankura. I am also very thankful to the Sabhadhipati, Bankura Zilla Parishad for her kind support and to the Karmadhakshya, Siksha Sanskriti Tathya O Krira Sthayee Samity and other Karmadhakshyas of Bankura Zilla Parishad for their inputs and involvement in the whole exercise. I express my deep gratitude to the representatives from academia who have helped us in providing us the framework and background of this exercise. Special mention may be made of Prof. Tarapada Dhar, Prof. Pratip Mukherjee, Dr. Himangshu Ghosh, Dr. Mousumi Mukhopadhyay (Patra), Dr. Subikash Chowdhury, Prof. Priyam Sengupta. Some of the NGOs namely Care India, Pratichi (India) Trust, Lutheran World Service, PRADAN, Nari Bikash Sangha have contributed immensely and we are grateful to them.

Finally I express my sincere thanks to the Development & Planning Department, Government of West Bengal for their kind guidance and constant encouragement.

September, 2006
Bankura

Prabhat Kumar Mishra

District Magistrate

Bankura

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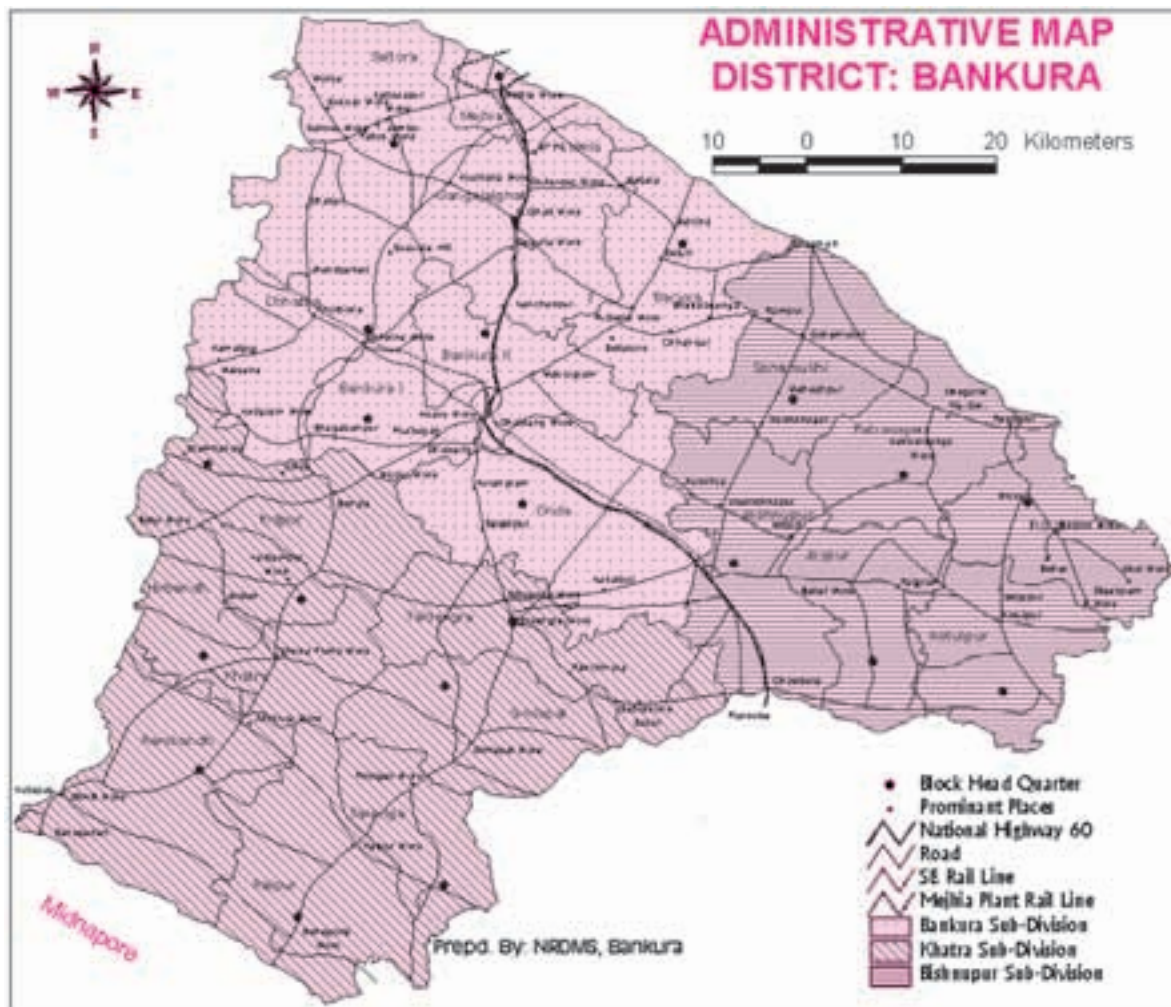
Human development and its measurement

Chapter 1

Human development is not just economic growth. It is about growth with expansion of choices, access to services and participation of people in the process of development leading to their empowerment. Growth cannot translate itself into human development unless it leads to improvement in their knowledge, health and income. Measuring progress of an administrative unit in terms of human development – be it a country, a province, a district or a sub-district unit – may require a number of indices. However, under the aegis of United Nations’ Development Programme (UNDP), a standard methodology for calculation of Human development attainment has been developed

since 1990 when the first Global Human Development report was published. Three basic indicators were taken up for assessing relative position of countries in the Human development ladder – life expectancy at birth representing attainment in the health sector; literacy rate and combined gross enrolment in the primary, secondary and tertiary education indicating attainment in the domain of knowledge and gross domestic product indicating attainment in the income sector. Equal weightage has been given to the three indicators and thus relative Human Development Index (HDI) of administrative units is calculated.

1.1 Bankura : some key features :



Map 1.1 Administrative map of Bankura

Bankura, the fourth largest district of West Bengal is located in the western part of the state, which is popularly known as '*Rarh*' from time immemorial. It has an area of 6882 sq.km. and according to the census of 2001, it has a population of 31,92,695. It is bounded by Paschim Medinipur and Hooghly district in the east, Purulia district in the west, Bardhaman district in the north and east. In shape, it resembles an isosceles triangle wedged in between Purulia and Bardhaman, with its apex nearly opposite Raniganj and with an irregular base line resting on Pachim Medinipur and Hooghly. Bankura is drained by Damodar, Darkseswar and Kangsabati along with their tributaries of which Gandeswari, Silai and Kumari deserve separate mention. This district has a moderate deposit of coal and a number of good deposits of china clay. As census, 2001 data reveals, it ranks twelfth in the state so far as total population is concerned.

The headquarters of this district is at Bankura, from

which it has derived its name. According to one tradition, the town was named after a local chieftain called Bankura Rai, while according to another legend the town is so called after Bir Bankura, a prince of Bishnupur. Another hypothesis suggests that the name is a corruption of Bankunda, meaning five tanks, which can be found in a Sanskrit verse by Edu Mishra, a fifteenth century genealogist. In old official records like Statistical and Geographical Report of the District of Bancoorah by Lieutenant Col. J. E. Gastrell, we find the town referred to as "Bancoorah or Bancoodah".

The district of Bankura acquired its present shape and dimension in 1879 though till 1881, the district judgship was known as West Burdwan. It was given the name Bankura in 1881 and since then the administrative and judicial jurisdictions of the district have been coterminous with the geographical boundaries of Bankura. Present administrative and demographic profiles of the district are summarised in the following Tables.

Table 1.1 Administrative profile

Sub-division	3 (Bankura Sadar, Bishnupur, Khatra)
Block	22
Municipality	3 (Bankura, Bishnupur and Sonamukhi)
Gram-Panchayat	190
Village	5187
Mouza	3828 Inhabited : 3543 Uninhabited : 285
No. of ITDP Mouza	747
Police Station	22

Table 1.2 Administrative structure of Bankura
Rural (22 Blocks)

Sub-Division	Name of the Block/ Municipality	Total No. of Gram-Panchayat/ Ward	Population (2001 census)			Percentage of SC population	Percentage of ST population
			Total	Male	Female		
Bankura Sadar	Bankura-I	6	95840	49083	46757	36.55	6.66
	Bankura-II	7	123415	63330	60085	28.89	2.83
	Chhatna	13	169215	85669	83546	27.38	21.82
	Saltora	8	121552	62239	59313	33.61	19.01
	Mejhia	5	76123	39525	36598	32.88	2.08
	Gangagalghati	10	162007	83117	78890	33.65	4.06
	Barjora	11	179007	92368	86639	32.47	1.80
Khatra	Onda	15	220572	112875	107697	32.47	4.78
	Indpur	7	137825	70990	66835	38.17	9.80
	Taldangra	9	128747	65713	63034	23.73	13.86
	Simlapal	7	127445	65297	62148	24.98	14.82
	Khatra	7	102569	52563	50006	24.74	22.24
	Hirbandh	5	72502	37301	35201	24.56	28.54
	Raipur	10	151293	77252	74041	20.73	28.50
	Sarenga	6	95128	48759	46369	27.80	19.81
	Ranibandh	8	104326	53168	51158	11.24	47.28
	Bishnupur	Bishnupur	9	138768	71200	67568	32.71
Joypur		9	141497	72348	69149	37.58	2.19
Kotulpur		8	167547	86385	81162	34.38	3.31
Sonamukhi		10	142328	73221	69107	41.96	3.56
Patrasayer		10	164060	83517	80543	44.70	2.96
	Indus	10	152847	78404	74443	41.77	1.90
	Total	190	2974613	1524324	1450289	31.87	11.06

Urban (3 Municipalities)

Bankura Sadar	Bankura	23	128781	66429	62352	22.99	0.78
Bishnupur	Bishnupur	19	61947	31223	30724	21.66	0.49
Bishnupur	Sonamukhi	15	27354	14026	13328	23.59	1.30
	Total	57	218082	111678	106404	22.69	0.76

Source: Census, 2001 & Office of the District Magistrate, Bankura

Table 1.3 Demographic features of Bankura

1	Population	Total : 31,92,695 (Male : 16,36,002, Female : 15,56,693)
2	Scheduled Caste	9,97,408 (31.24 percent)
3	Scheduled Tribe	3,30,683 (10.36 percent)
4	Population between 0-6 age group	14.08 percent
5	Main Workers	29.61 percent
6	Marginal workers	15.10 percent
7	Non-workers	55.25 percent
8	Cultivators	13.77 percent
9	Agricultural labourers	15.67 percent
10	Household industries	2.34 percent
11	Other workers	12.59 percent
12	Decennial growth rate in the decade 1991-2001	13.79 percent
13	Literacy rate (excluding 0-6 Population)	63.84 percent (Male:- 77 percent, Female:- 49 percent)
14	Percentage of rural population to total	92.63 percent
15	Percentage of urban population to total	7.37 percent
16	Sex ratio (per 1000 Male)	953
17	Density of population (per Square Km.)	464

Source: Census, 2001

1.2 SWOT analysis :

1.2.1 Strength :

(i) Land :

Total area of this district is 688200 hectares out of which forest area is 147700 hectares, while the high land and medium land are 1,76,915 and 1,50,611 hectares respectively. The huge land area may be put to productive use by undertaking plantation and other activities, which may generate gainful employment. The population density is 464 per sq. km. (almost half of the state average!) and per capita land availability is more.

Again highland covers an area of 1,76,915 Hec. where traditional cultivation of paddy is not remunerative. There lies scope for integrated land and water development under micro-watershed approach. In fact, on an average Bankura gets a rainfall of 1400 mm. and there is a huge scope for surface water based irrigation system.

(ii) Human resources :

Out of a total population of 31,92,695, main worker and marginal workers constitute 44.71 percent and as

such skilled and unskilled work-force is available in plenty for making full use of land in agriculture and allied activities as well as service-oriented activities. There are a huge number of highly skilled artisans in the district.

(iii) Agro-climatic condition :

The agro-climatic condition of the district is suitable for plantation and horticultural crops. The district with dry climatic condition and vast wasteland has great potential for undertaking plantation and horticultural activities like mango, guava, citrus fruits and medicinal and aromatic plant. At the same time the dry climate is very suited to animal resource development and seed production.

(iv) Educational and research organisation :

There are 15 Colleges, 491 Secondary Schools, 3462 Primary Schools, 16 Madhyamik Siksha Kendras and 451 Sishu Siksha Kendras and two Engineering Colleges and three Polytechnics. In the field of agriculture, there is one Krishi Vigyan Kendra at Sonamukhi, one Horticultural Research and Development Centre at Taldangra, one Rice Research Centre at Bankura, one Dryland Farming Research Center at Susunia.

Moreover, there are number of fodder farms in the district and the infrastructural facilities of Animal Resource Development Department is sound. These may be used to the maximum advantage.

(v) Connectivity:

South Eastern Railway connects Bankura with Kolkata, which passes through this district. Once abandoned BDR Railway has also been upgraded to broad gauge. National Highway (NH)-60 that connects NH-2 and NH-6 passes through Bankura. Bankura has very good road communication with Durgapur, an important industrial city of the state. It has excellent road connectivity with Raniganj-Asansol industrial belt as well. Moreover, the network of surfaced road is very good. A large number of very good quality rural roads has come up under Pradhan Mantri Gram Sarak Yojana (PMGSY). This has opened up scope for trade and commerce and also service-oriented activities in the remote areas.

(vi) People's participation in development :

Over the last two decades, the Panchayat Raj institutions have achieved significant maturity and have been performing commendable role in planning and implementations of development schemes. There is tremendous scope for involving community in resource management with the objective of reduction of poverty. People in the villages are quite willing to participate in the process of development — even to the extent of doing 'shramdan'. People have also shown cohesion in taking up group activities and can be easily mobilized around poverty reduction activities.

1.2.2 Weakness :

(i) Small size of land holdings :

A study on distribution of operational holdings according to size class reveals that, average size of holding in the district is 1.02 acre. Out of total of 475605 holding, 318647, i.e. 67 percent belongs to marginal size class. For marginal class, average size of holding is 0.53 acre. Besides, small land holding size class constitutes 21.94 percent. Thus in this district, marginal and small land holding size classes together constitute nearly 90 percent of the total land holding. In other words, size of agricultural holding is less than one Hectare for 67 percent and less than two Hectares

for 90 percent holding size. Considering the poor irrigation facilities, low fertility and resultant low productivity, such holding pattern is not able to make much impact on the quality of life of people at large.

(ii) Low fertility of soil :

The district is divided into three distinct topographical regions, viz, the hilly terrain in western part, undulating central part and alluvial plain in the eastern part, unidentifiably merging into one another. The hilly region is characterised by large granite rocks, central part by red lateritic and eastern part by alluvial and loamy soil.

The undulating terrain of about 90000 hectares is susceptible to soil erosion and the hard granite base leaves lesser scope for economic production. A major part of the land in the central region is lateritic in nature and the soil is devoid of many basic nutrients essential for normal crop. The soil is acidic which reduces the efficacy of fertilizers.

(iii) Poor irrigation facility :

There is a good surface irrigation network under the commands of Kangsabati & Damodar canal irrigation system. Moreover, there is also a good network of River Lift irrigation (RLI) stations. But these major & minor irrigation facilities have not been able to operate at their full potential due to dilapidated and obsolete distribution network & derelict machinery. Cropping intensity is as low as 147 percent. Uneven distribution of rainfall, low water retention capacity of soil, undulating land structure and recurrent crop failure are other problem areas. The district is drained by rivers like Darakeswar, Damodar, Kangsabati, Silabati and Gandhewari. They are mainly rain-fed and their flow is mostly seasonal.

(iv) Low agricultural productivity :

The economy of Bankura district is predominantly agrarian. Moreover, the crop pattern is tilted heavily towards paddy cultivation using the traditional agricultural practices. Unconducive topography, very small size of the land holdings, poor irrigation coverage, low water retention capacity of soil etc. offer limited scope for farm mechanization. Use of farm mechanization in agriculture is low also due to lack of awareness among farmers. Farm mechanization is

limited to eastern alluvial tract among comparatively prosperous farmers. On the other hand response to crop diversification is poor and the pace of change of cropping pattern is low.

(v) Lack of entrepreneurship :

The district is predominantly agricultural. Majority of population depends on agriculture and allied activities. Though there are large chunks of barren land that could have been utilized for setting up industrial units and there are traditional crafts and skilled workforce that could have been consolidated for drawing larger economic returns and tapping export potential, the district witnessed low rate of expansion of industrial sector. Moreover, the expansion remained limited to some pockets in the northern region only.

(vi) Illiteracy :

As per Census 2001, Literacy rate is 63.84 percent. It is much lower than national and state average. Literacy is even lower in case of female, which is only 49.8 percent. In fact there are 688 number of mouzas in the district where the female literacy rate is less than 30 percent.

1.2.3 Opportunities :

(i) Plantation and horticulture :

Land utilisation pattern reveals that only 59.5 percent of total land is under cultivation. The district has a vast area of cultivable wasteland comprising 2 percent of total geographical area. A part of that is acidic-alkaline or sand cast. These areas offer scope for further development.

On the other hand, the agro-climatic condition of the district is suitable for plantation/horticulture. Mulberry and arjun plantation and horticultural crops such as mango, guava, cashewnut, jackfruit, banana, papaya, citrus fruits etc. can be grown in large scale. There is also scope for development of floriculture, medicinal and aromatic plants in the district. Total area under horticultural crops in the district is around 4775 Hectare and that under mulberry and arjun plantation is 4606 Hectare.

Area of cultivable wasteland in the district is 18846 hectare, a major part of which can be utilised for the purpose. There are seven seed farms, one Horticultural

Research & Development Centre at Taldangra and about two hundred and fifty seed-dealers in the district.

Systematic identification of areas to be covered under plantation/horticulture, getting timely supply of planting materials and other inputs like technical advice, marketing arrangement, market information enabling the farmers to fetch remunerative price are the need of the day. The activity will help marginal and small farmers, to generate employment, improve nutritional standards through development of wasteland and soil conservation by peripheral plantation.

(ii) Irrigation & minor irrigation :

The facilities created under the Irrigation & Waterways as well as Minor Irrigation Departments have not been utilised to its fullest extent. As per record, 96 percent of cultivable area is under irrigation coverage. But a much smaller part of cultivable area gets actual irrigation. It has earlier been explained that the reasons behind are dilapidated and obsolete distribution network, derelict machinery and siltation in canal system. There lies much scope for system improvement so that more areas are brought under actual irrigation. There also lies scope for further exploitation of surface runoff water. Average annual rainfall in the district is nearly 1500 mm., which runs off and goes waste. If this huge runoff water is systematically and planfully tapped, the scope for irrigation will be enhanced substantially. At the same time, this will check soil erosion and recharge ground water.

(iii) Sericulture development :

The land use pattern and climate in certain parts of the district is suitable for mulberry and arjun plantation & silkworm rearing. Both mulberry culture and traditional tasar culture have enough scope for further development in both eastern & western parts of this district.

(iv) Scope for medium, small & cottage industries :

Bankura has great potential for expansion of activity in medium small scale & cottage industry. The industrial belts of Asansol, Raniganj & Durgapur are very close to Barjora & Mejia. Good connectivity of road and rail, steady power situation, availability of land for setting up industries and cheap labour, both skilled and unskilled,

offer ample scope for growth. The district is rich in minerals like coal, fire clay, china clay, silica etc. and there is a scope to establish industries using the available minerals as the raw material. Already a few medium industries have come up but there lies much greater scope, especially for cottage and small-scale industries.

The district has rich tradition of 'Baluchari' and 'Swarnachari' saree in handloom sector. There are 14473 nos. of handlooms & 136183 weavers. But this sector is facing crisis at present. There remains great scope for diversification & upgradation in this sector with much greater employment potential. The growth of sericulture in the district during last few years has been very promising. There also lies scope for related activities, which may generate gainful employment for women-folk.

The district is famous for some unique traditional crafts; pottery work of Panchmura, Baluchari silk sarees of Bishnupur, Dokra work of Bikna, Patrasayer and Gopalpur, stone craft of Susunia are unique in the state. There are large pockets in the district where the people have endogenous skills in manufacturing fishing hook, fishing net, bamboo craft and manufacturing of babui rope.

(v) Change in agricultural practices :

Cultivation pattern of this district is predominantly mono-cropped and paddy is the primary crop of this district. Proportion of net cropped area to total geographical area is 56 percent, area under mono-crop is 35.20 percent. Cropping intensity is 147 percent. In this district wheat, oilseed and vegetables are other major crops. High yielding variety (HYV) seeds are used wherever irrigation is available. Use of chemical fertiliser is predominant. Hardly any organic manure that helps to soften hard lateritic soil is applied. Use of bio-pesticides is very rare.

Hence there is enough opportunity for crop diversification, changing the cropping pattern, substitution of chemical manure by bio-fertiliser, introduction of organic farming leading to the use of bio-fertilisers, vermiculture composts etc.

(vi) Women's empowerment and strong presence of self-help groups (SHG) :

Due to reservation in membership and post of office bearers in three tiers of Panchayat Raj system, this

district has witnessed rise of women participation in Panchayat bodies as well as in development administration at the grass-root.

On the other hand, formation of Self Help Groups (SHG), imparting skills to the members of SHGs, and their participation in productive activities have resulted in enlargement of share of female folk in economic activities. There still lies huge opportunity for the women SHGs for taking part in economic activities in a big way.

1.2.4 Threat :

The mainstay of economic activity of the people of the district is agriculture and allied. This sector faces threat from the following factors.

(i) Drought :

Though the district receives average annual rainfall of 1400 mm. in a year, which is not a poor figure so to say, 80 percent of the total rainfall is received during the 4 months of the year. Moreover the land being undulating, lateritic & porous, result in poor subsoil moisture which becomes a potent threat to the crop. Fluctuating rainfall, with intermittent drought spell between two successive rainfalls, makes the crop, generally the Kharif crop, very vulnerable and seriously affects the yield. When the drought spell lengthens it takes a heavy toll on the crop and resultant low output and low income traps the farmers, with very small holding size, in a vicious cycle of the loan from private lenders. Moreover there is a tendency to overexploit the underground water for the purpose of irrigation, which is not desirable. In case of Blocks under Bishnupur Sub-division, there is such overexploitation of this source. Kotulpur Block has already been declared a black zone with respect to the availability of ground water.

(ii) High prices of agricultural inputs and pesticides :

The farmers are very much dependant upon chemical fertilizers & pesticides for their agriculture. The prices of chemical fertilisers and pesticides are increasing with the passage of time but the prices of agricultural produces like paddy are decreasing which poses a serious threat to the prospect of this sector. To be added with it the fluctuating prices of other agricultural crops, mainly, oilseed and pulses which has

also contributed to the vulnerability of the farmers. Overuse of chemical fertiliser and pesticides is posing a serious hazard to human health.

(iii) Changes in technology & market trend :

The pace of change in economic activity fails to cope with the rapid changes in technology as well as market trend. The future of handloom sub sector with its products on cotton, silk & Tasar have failed to compete with the products of synthetic & other imported fibres and weavers are now at the verge of starvation. The rapid change in the trend in the market and the failure of weavers and other small artisans and craftsmen to adapt to the market trend has made them very vulnerable and there is hardly any prospect of those people who are engaged in this activity unless they adapt themselves to technological innovations and changes quickly.

In some sectors there are middlemen who are making a hefty profit and the condition of artisans is very pathetic. As a result, in Baluchari sector, for example, the next generation is getting frustrated and wants to break away from this sector. In all probability, Baluchari will vanish unless something is done.

1.3 Bankura in the West Bengal human development ladder :

Following the global pattern, West Bengal Human Development report published in 2004 has captured human development attainments of the districts in the State. As disaggregated data for the bifurcated districts of Paschim Dinajpur and Medinipur were not available, those were taken as one single district. Accordingly 17 districts of the State were ranked. Bankura was at a relatively lower rung of human development, its rank having been eleventh. The following table shows relative position of the district in the all West Bengal perspective.

Relative position of the district in terms of the three human development indices indicates that in relation to health and educational attainments, the district is closer to the state average, whereas in income, it lags far behind. In income sector Bankura is only second from the bottom, Purulia having even lower income index. The District Human Development Report is a sequel to the State Human development Report and it endeavours to explore in greater details the issues posed by the State Human Development Report.

Table 1.4 Human development indices for Bankura vis-à-vis other districts of West Bengal

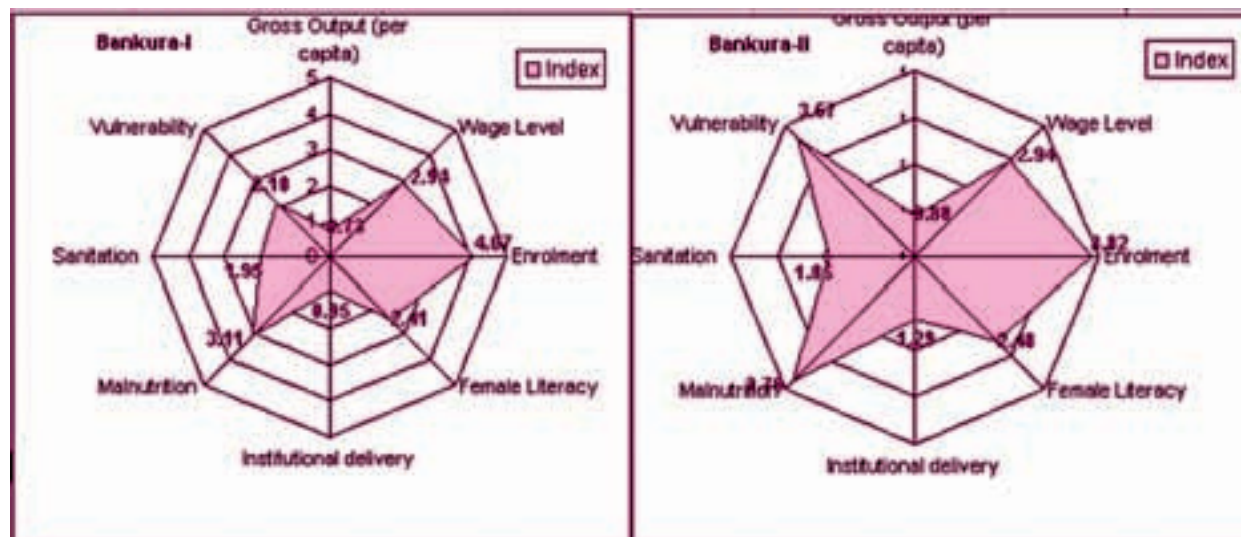
District	Health Index	Income index	Education index	HDI value	HDI rank
Kolkata	0.82	0.73	0.80	0.78	1
Haora	0.77	0.53	0.75	0.68	2
North 24 Paraganas	0.72	0.49	0.76	0.66	3
Darjeeling	0.73	0.49	0.72	0.65	4
Bardhaman	0.74	0.47	0.71	0.64	5
Hugli	0.77	0.46	0.67	0.63	6
Medinipur	0.68	0.45	0.74	0.62	7
South 24 Paragana	0.71	0.40	0.68	0.60	8
Nadia	0.65	0.41	0.66	0.57	9
Jalpaiguri	0.61	0.38	0.60	0.53	10
Koch behar	0.50	0.41	0.65	0.52	11
Bankura	0.67	0.26	0.62	0.52	11
Dinajpur	0.62	0.39	0.53	0.51	13
Birbhum	0.53	0.27	0.61	0.47	14
Murshidabad	0.57	0.29	0.52	0.46	15
Purulia	0.61	0.18	0.55	0.45	16
Malda	0.49	0.36	0.48	0.44	17
West Bengal	0.70	0.43	0.69	0.61	

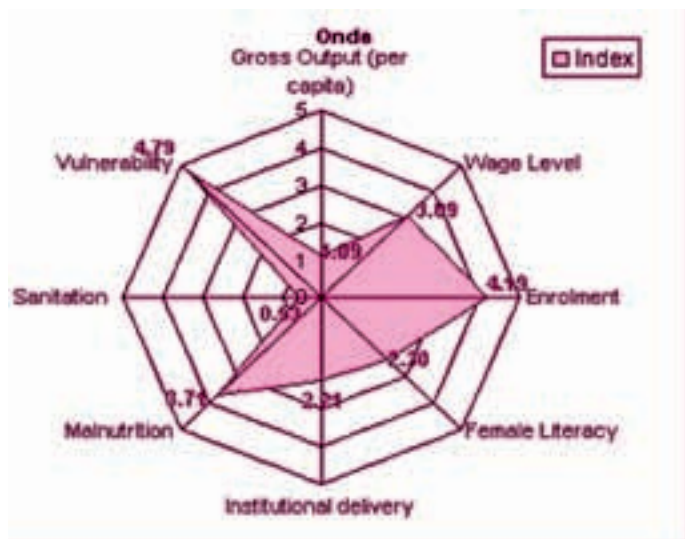
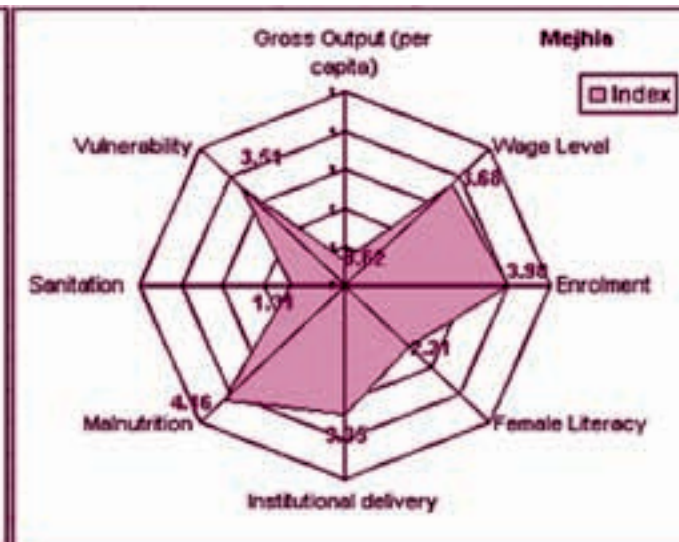
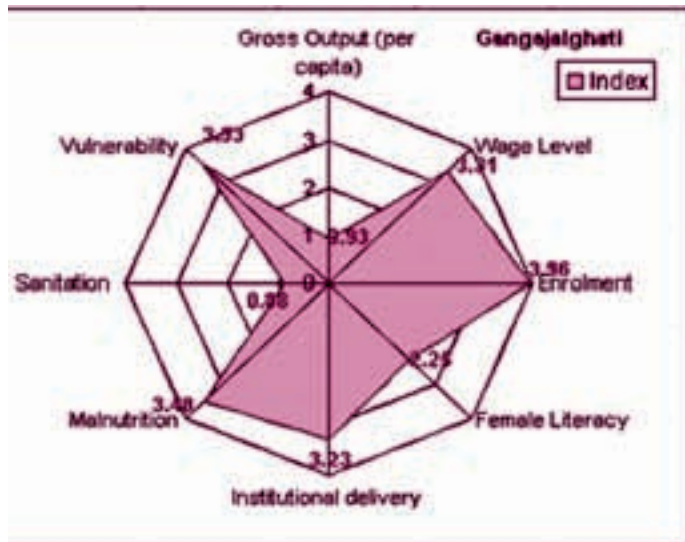
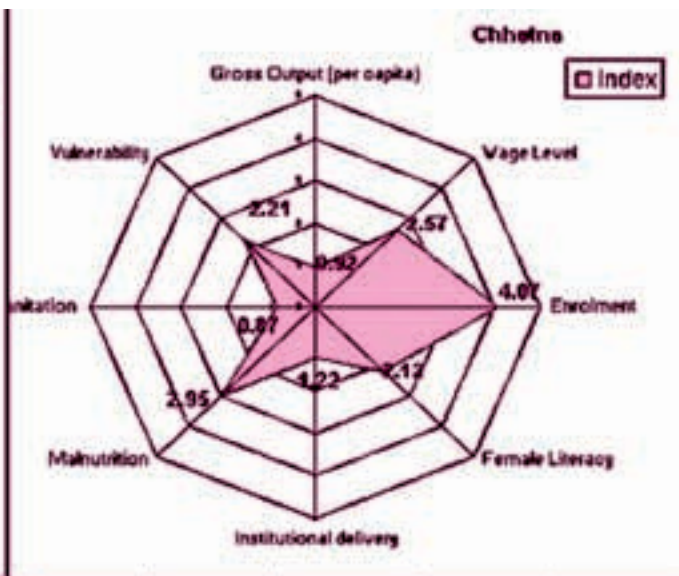
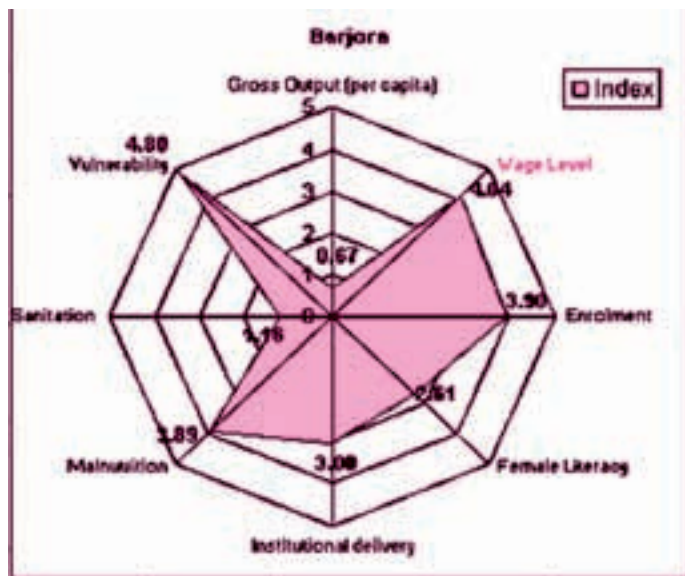
Source: West Bengal Human Development Report, 2004

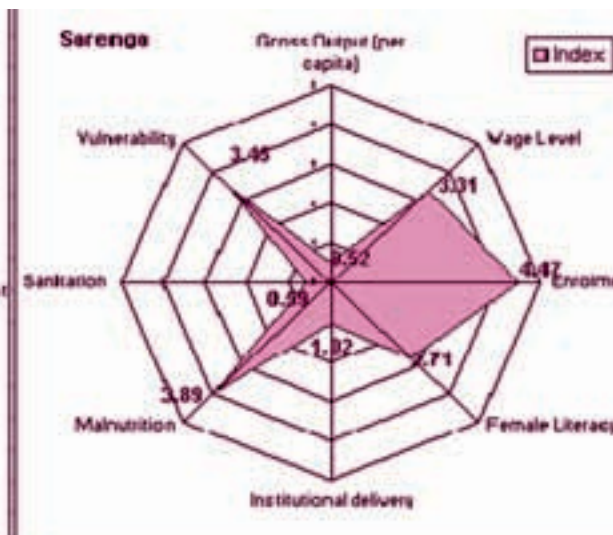
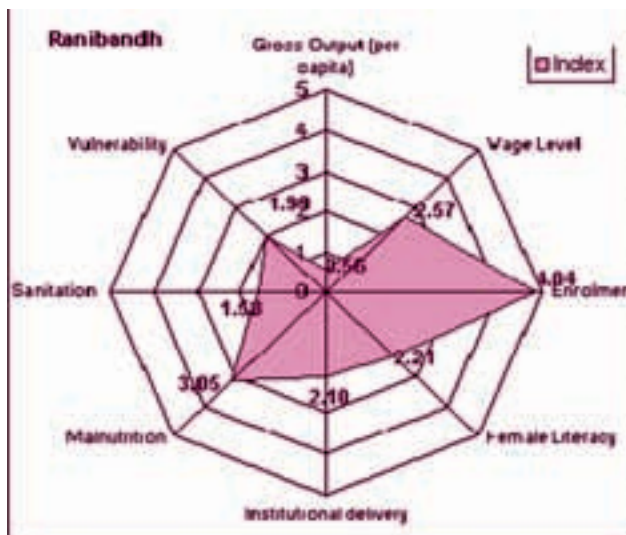
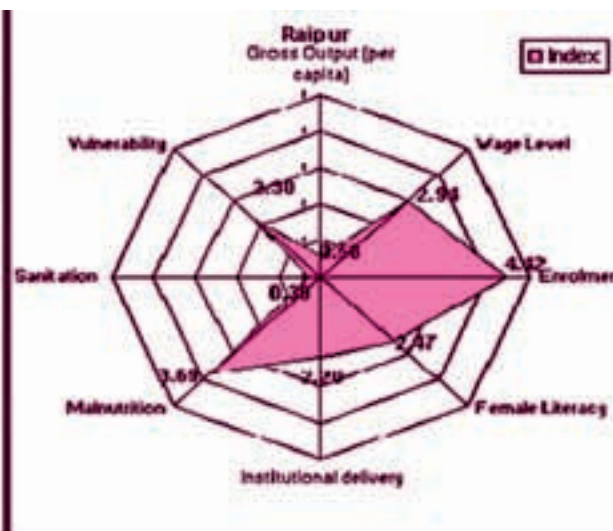
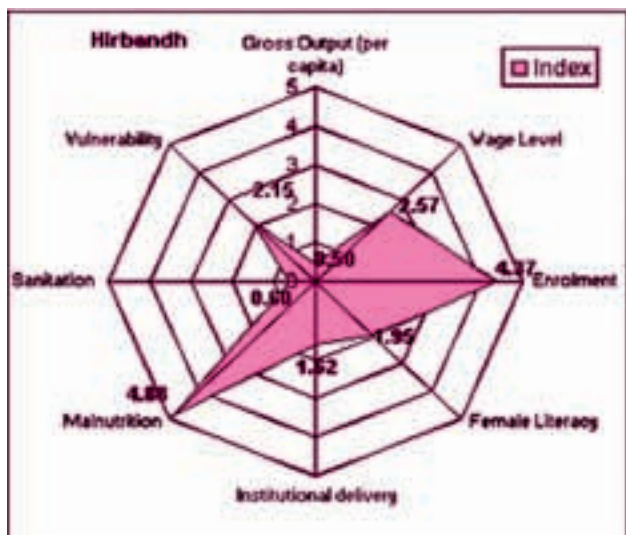
1.4 Human Development Radar :

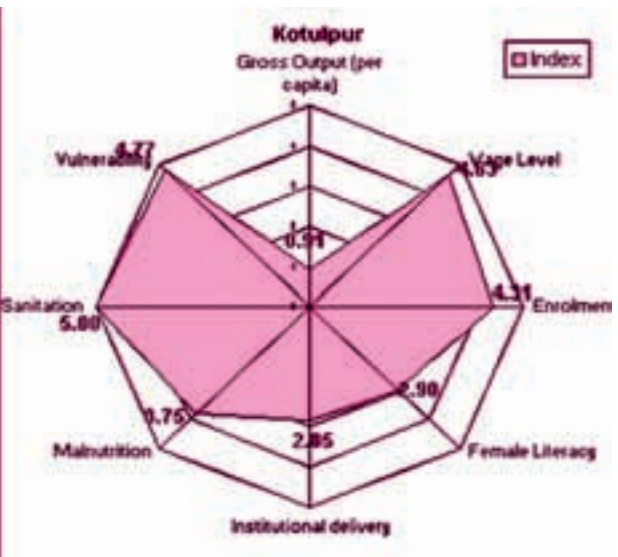
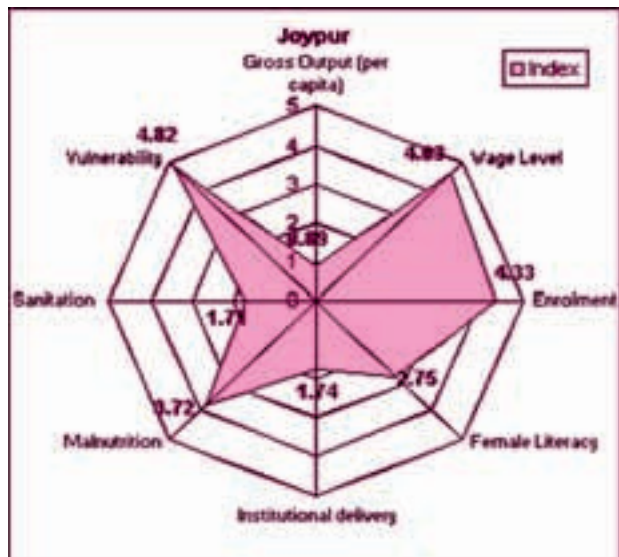
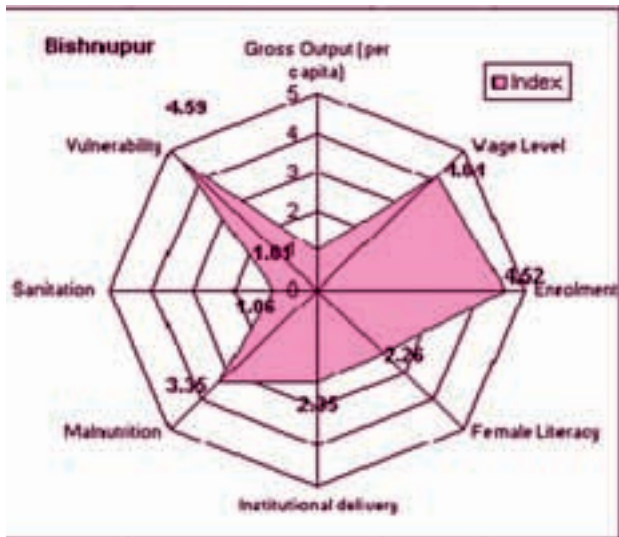
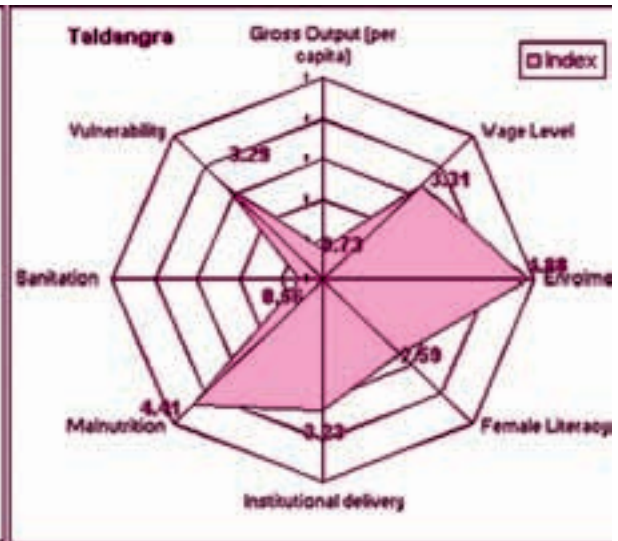
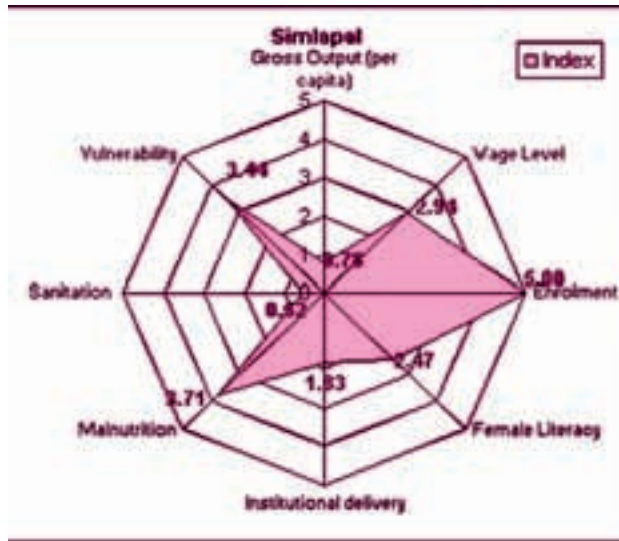
Whereas standard procedures have evolved in measuring relative position of larger units of development, viz., countries, states and districts in the Human Development spectrum, no standard processes have as yet been developed in making comparison amongst lower units like blocks and Gram-Panchayats in terms of human development achievement. Lack of standard data at the disaggregated level is the greatest stumbling block in arriving at such a yardstick. Faced with this dilemma, the district weighed the options of developing some proxy indicators to indicate relative position of blocks in terms of achievements in the health, education and livelihood sectors. However, after detailed debate and discussions at the district level, we have decided to do away with development of human development indices for the blocks. As an alternative, we have decided to construct Human Development Radars for the blocks of the district. The concept of Human Development Radar, explored at length in the National Human Development Report, 2001 has been applied in the specific context of the district. Using this methodology eight indicators have been chosen here to capture the status of human development in different arena. Blocks have been accordingly ranked. The indicators are:- **per capita gross output, wage level, enrolment, institutional delivery, malnutrition, sanitation coverage, female literacy rate and vulnerability.** An effort has been made to capture each area of human development. However, indicators where the available data are reasonable accurate. Per capita gross output has been calculated and normalized with the norm of

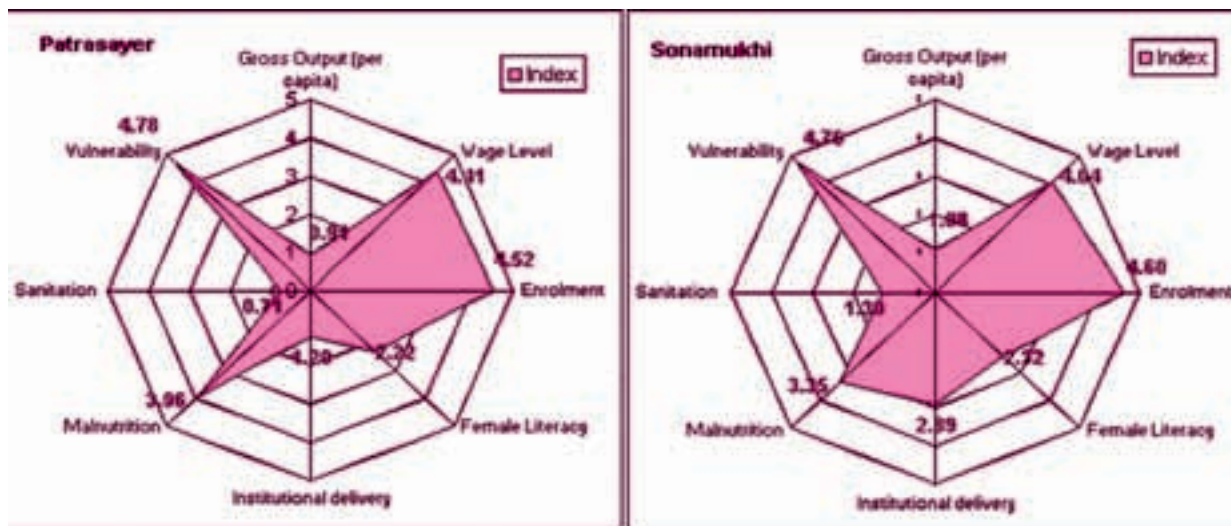
\$ 1 per person per day delineated in the Millennium Developmental Goal (MDG). Wage level is another indicator signifying the standard of living. Average of the wage level in the lean and peak season has been taken and normalized with respect to the minimum wage as applicable under the existing norms. Enrolment has been taken for the education sector and institutional delivery to capture the maternal health. Since malnutrition is one of the biggest reasons of child death, the same has been adopted. Sanitation coverage being one of the major weaknesses on human development attainment in this district, has also been included. Female literacy has been kept as one of the indicators to understand the gender status. The last indicator adopted is vulnerability. This is an indicator derived from two major aspects which determine vulnerability in this district – migration and fluctuations in foodgrain production. Blocks have been divided into three categories with respect to migration – severe (1), moderate (0.5) and no migration (0). Figures in the bracket are meant to quantify the extent of migration. Similarly standard deviation of fluctuations in foodgrain production has been calculated and is normalized with respect to the mean foodgrain production. Both these parameters have been given equal weightage while calculating vulnerability index for a block. For malnutrition and vulnerability inverse of the actual figure have been used as per the usual methodology followed for a human development radar. The Human Development Radar thus calculated for different Blocks has been depicted :











As can be seen, Hirbandh block is lowest on the ladder of human development and Indas is at the highest rung of the ladder. Even blocks that are relatively better off

have weaker areas which is a concern and which should find a place in chalking out a human development strategy.

Standard of Living

Chapter 2

2.1. Introduction :

As has been indicated earlier, Bankura lags far behind other districts in terms of the income index- one of the three human development indicators. As we will see later, there are also sharp regional disparities in the district and, therefore, there are pockets in the district where the gap is even wider. Standard of living is, therefore, the biggest concern. Livelihood options are, on the other hand, fairly limited because of poor natural resource base and related uncertainties. An attempt has

been made here to understand reasons behind low income level and relative income disparities. Possible solutions to enhance quality of life have also been explored.

2.1.1 Income approach :

In recent years statistically acceptable and comparable data of GDP, Net Domestic Product (NDP) and per capita District Domestic Product (DDP) are available in both current and constant prices with 1993-'94 as the base year.

Table 2.1.1 Variation of GDP & per capita GDP with 1980-'81 base price

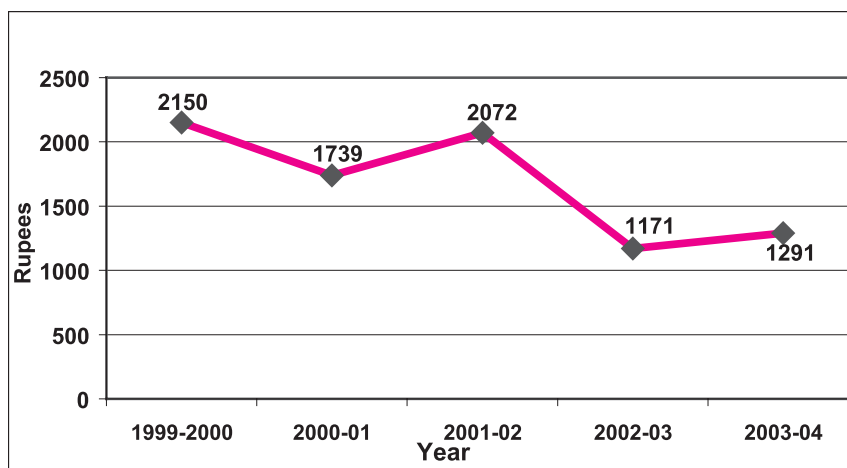
Year	NDP at current prices	Per capita income at current prices	NDP at constant prices	Per capita income at constant prices
1993-'94	Rs. 1778.00 crores	Rs. 6130.52	Rs. 1778.00 crores	Rs. 6130.52
2000-'01 (Q)	Rs. 4997.48 crores	Rs. 15741.64	Rs. 2971.99 crores	Rs. 9361.52

Source: Bureau of Applied Economics and Statistics, Government of West Bengal

In the book 'Focus on West Bengal, Problems and Prospects', A.K. Maikap has classified the districts of West Bengal on the basis of their per capita income in 1961. Here, among fifteen districts of the state, Bankura ranks second from below, the only district with lower per capita income than it was Purulia (less than Rs. 200.00 at current prices) and the other three districts belonging to the group of Bankura were Midnapore,

Cooch Behar and Malda (per capita income ranging from Rs. 201.00 to Rs. 250.00). But by 1981, Bankura district improved its relative position considerably well as we see that its rank was tenth among the eighteen districts of West Bengal.

During 1981-2001, Bankura has continued its upward journey in the path of higher per capita income and by 2001 it changed its relative position to seventh.

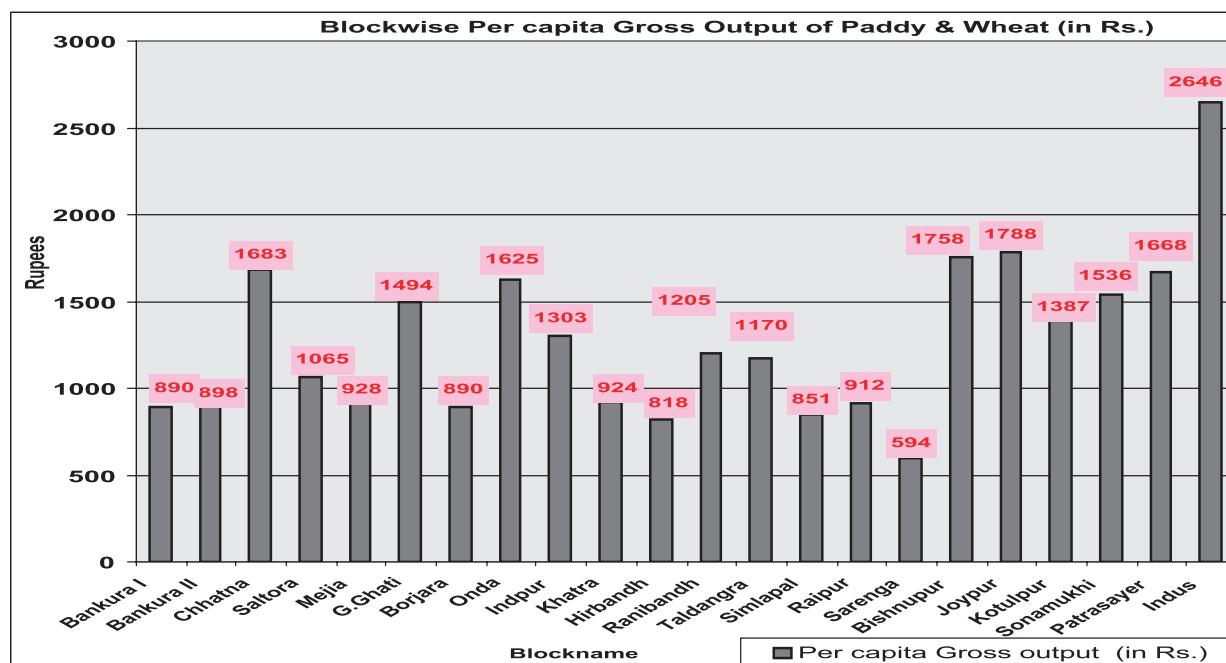


Graph 2.1.1 Per capita gross output (paddy) of the district (rural)

While the Gross Domestic Product (GDP) has been estimated as indicated above, estimation of Block Level Domestic Product and thereby income calculation on similar lines is likely to be very erroneous since similar assumptions are not valid at the block level and the data on tertiary sector is very limited. Instead, an attempt has been made here to take up primary sector only and rank the blocks accordingly. Since Bankura economy is mainly agrarian, this approach is expected to give a fairly good idea about relative picture of income. Since the resulting indicator cannot strictly be

equated with the concept of per capita income, we have instead used the term 'gross output in primary sector'. It may be reiterated that the output, which adds to the direct income, has been included (instead of the usual notion of total goods and services). The graph 2.1.1 shows per capita gross output of paddy for the district during 1999-2003. It shows a downward trend which is a cause of worry.

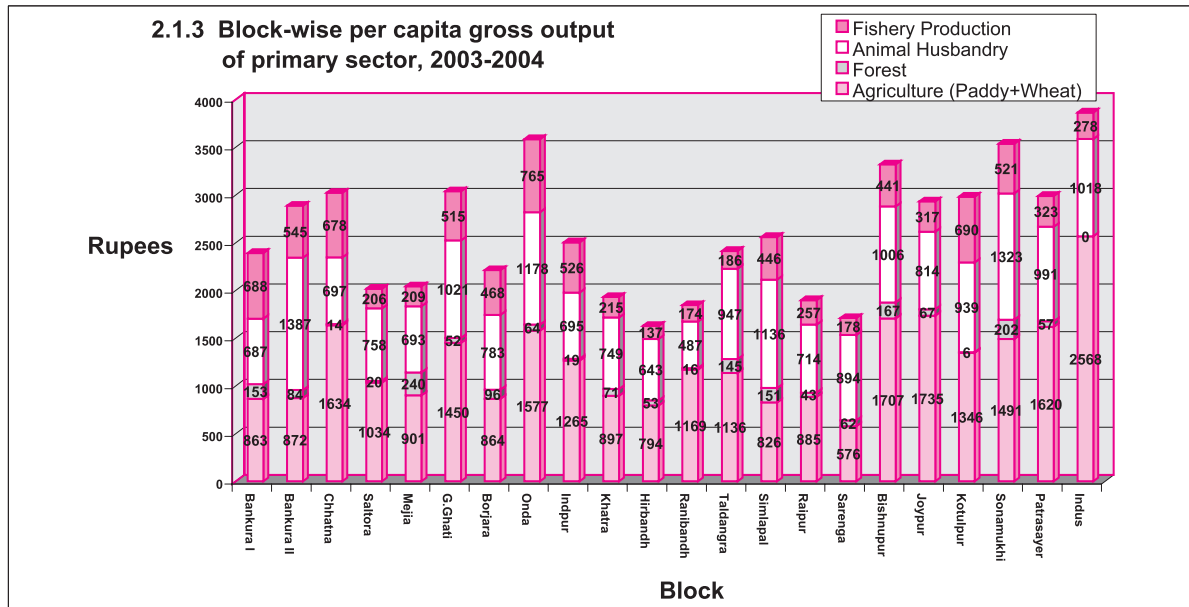
The bar chart 2.1.2 shows the relative position of different blocks on similar lines for 2003 (taking paddy and wheat together).



2.1.2 Block-wise per capita gross output of paddy and wheat

We have similarly calculated the gross per capita output for the main components in the primary sector for different blocks, which is indicated in bar diagram 2.1.3. Because of paucity of data only the main components like milk production, forest timber has

been used for the calculation. As can be seen there are wide variations and clearly the blocks in Bishnupur Subdivision with more fertile land and water availability are better off.



2.1.2 Per capita consumption :

The National Human Development Report, 2001 opines that per capita consumption expenditure is a better indicator of an individual’s command over resources and economic well-being. We entirely agree with its arguments. But though reliable and comparable data on household consumption expenditure are available through the Natuional Sample Survey Organisation (NSSO) at sub-regional level (at present

at the level of NSS regions) separately for rural and urban areas on a regular basis, these are non-existent at the block level and there are reservations regarding those available at the district level. In the State Human Development Report, 2004, we get the picture of the seventeen districts of West Bengal regarding per capita consumption on the basis of NSS 1999-2000. Therefrom we get the figures for Bankura district as shown in Table 2.1.2.

Table 2.1.2 Per capita monthly consumption expenditure: rural and urban

Rural monthly consumption expenditure	Urban monthly consumption expenditure	Urban-rural consumption expenditure ratio
Rs. 353.28	Rs. 500.40	1.42

Source: National Sample Survey, 1999-2000

From the State Human Development Report, 2004 it is seen that although Bankura ranks seventh on the basis of per capita DDP, it appears to be a district with very low level of living standard because its rank is second from below regarding both rural and urban monthly consumption expenditure. The only district where rural people consume less is Purulia (ranking sixteenth among the seventeen districts of West Bengal on the basis of per capita DDP) and the single district with urban people consuming less is Jalpaiguri (ranking fourth

among the seventeen districts of West Bengal on the same basis).

The lack of close correlation between per capita income and per capita consumption is commented upon in the State Human Development Report, 2004, but is left unexplained. Presumably, one reason is tendency of under-reporting of expenditure pattern by public in general. But more significant than it is perhaps the incidence of inequality in the consumption expenditure among the different sections of

population. This inequality factor is specially operative in the case of Bankura district as about 40 percent of the people here belong to Scheduled Caste and Scheduled Tribe etc. and about 42 percent of the net cultivated area of the district with a mainly agro-based economy falls in the drought-prone and near drought-prone region. Indeed, while inequality has nothing to do with the concept of per capita income, it has very serious impact on the per capita consumption figures in any locality.

2.2 Structure of production :

‘Bankura is one of the few districts in Southern West Bengal which has, even in recent years of urbanisation and industrialisation, maintained its overwhelming agro-economic base’ – this is how Santibhusan Nandi, an Assistant Anthropologist in the Anthropological Survey of India, begins his account of ‘Some Aspects of Social-cultural Life of a Bankura village in 1961.’¹. After the lapse of 45 years, it would not perhaps be unjustifiable to repeat the same sentence in order to characterise the district economy of Bankura in 2006. Agriculture is till now the chief occupation of the people and while it was the main source of livelihood

of about 81.74 percent in 1961 and 79.7 percent in 1991, 69.7 percent of Bankura people are still dependent on agriculture for earning their daily livelihood.

2.2.1 Occupation structure :

That occupational structure is definitely related with the level of economic development is well known. This relationship is not so close in the case of human development level in any country or region. But as non-agricultural occupation generally generates more income, and per capita income is considered the first determinant of the standard of living of people, the relative importance of agriculture and non-agricultural occupation of the inhabitants may be taken as an indicator of their level of living in a locality. The Table 2.2.1 gives us an interesting picture of Bankura district in relation to some other agrarian districts and also in relation to the position of the state of West Bengal in this context.

From the above table it is seen that only two districts, Bankura and Purulia, have as yet retained overwhelmingly agriculture-based economy and agriculture still provides means of livelihood to more or less 70 percent of population there.

Table 2.2.1 Occupation class: Percentage of people engaged in 2001

District / State	Farmers	Agricultural labourers	Non-agricultural occupations
Uttar Dinajpur	38.0%	43.7%	18.3%
Dakshin Dinajpur	34.3%	40.0%	25.7%
Cooch Behar	40.4%	31.8%	27.8%
Purulia	33.3%	38.4%	28.3%
Bankura	32.6%	37.1%	30.3%
West Bengal	25.4%	33.0%	41.6%

Source: West Bengal Human Development Report, 2004, p 96

2.2.2 Trends in agricultural production and productivity :

After the record achievements (highest rate of growth of foodgrains production) of West Bengal in the agricultural sector in the eighties, there had come a recessionary trend particularly in rice production (Boro paddy) during the nineties. But though the yield rate of foodgrain declined in Bankura, Midnapore and

Purulia in the year 1998-'99 due to scanty rainfall, the district of Bankura ranks very high in terms of its performance in foodgrains productivity. The bar diagram 2.2.1 illustrates the point.

It is found that productivity of Bankura is always higher than the state average and while in 1995-'96, it came second only to Burdwan (2702 Kg./ Hectare), in 2000-2001 its rank was third, the district of Hooghly

Foodgrain productivity in Kg./Hec.

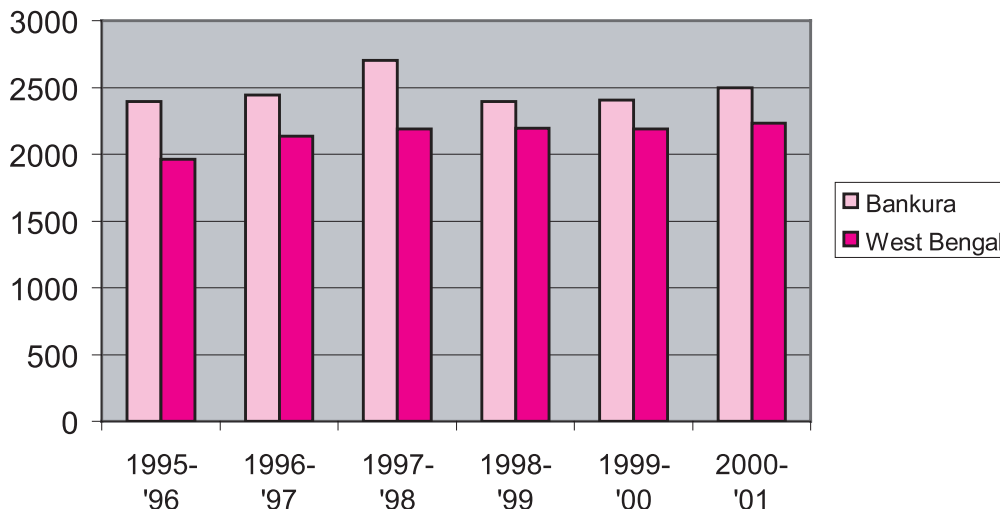


Diagram 2.2.1 Comparative study of foodgrain productivity in Bankura and West Bengal

scoring higher (2512 Kg./Hectare). As regard to the rate of growth of foodgrains production during 1982-'83 to 2000-2001, the district of Bankura also exceeds most of the other districts of West Bengal except Dinajpur, Jalpaiguri and Murshidabad, its percentage rate of growth being 3.83 against the state average of 3.26.²

2.2.3 Rest of the Primary Sector :

From a study of the structure of production in Bankura it is seen that the primary sector contributes 42.23 percent of the NDP of the district in 2000-2001 at constant (1993-'94) prices. Agriculture shares 37.82 percent of it and the respective shares of forestry, fishery and mining and quarrying are 0.95 percent, 3.44 percent and 0.02 percent (total share of the allied sectors is 4.41 percent). In both forestry and fishery, the district is in a better position in relation to the state average

(0.63 percent and 2.80 percent respectively). In forestry, its rank is fifth, Purulia, South 24 Paraganas, Uttar Dinajpur and Birbhum coming ahead of it and in fishery, its rank is again fifth, the districts with larger share in the NDP being Purulia, South 24 Paraganas, Mindapore and Birbhum.³

2.2.4 Role of the Secondary Sector :

From 1991 Census we find that 9.67 percent of the main workers of Bankura are engaged in the secondary sector.⁴ Nonetheless, the sector contributes only 12.7 percent of the NDP in the district in 2000-2001 and it stands in this respect much behind not only to the state average of 20.28 percent but also from the neighboring agrarian district of Purulia (16.80 percent) and Midnapore (16.49 percent). The Table 2.2.2 illustrates its position vis-à-vis some other industrially advanced districts in West Bengal.

Table 2.2.2 Share of the secondary sector in NDP at constant (1993-'94) prices for various districts

District	Share of the secondary sector in NDP at constant (1993-'94) prices	Rank
North 24 Paraganas	33.02	1
Howrah	30.32	2
South 24 Paraganas	27.56	3
Hooghly	22.71	4
Burdwan	22.42	5
Jalpaiguri	20.34	6
Murshidabad	19.99	7
Nadia	18.26	8
Purulia	16.80	9
Midnapore	16.49	10
Darjeeling	16.18	11
Kolkata	15.89	12
Bankura	12.71	13

Source: Bureau of Applied Economics & Statistics, Government of West Bengal, 2002

2.2.5 Service sector :

That the pace of economic attainment in the district has been more rapid in the late nineties is clear from the fact that while in 1994-'95 the services sector contributed only 35.89 percent of the NDP of Bankura at constant (1993-'94) prices, in 2000-2001 the share of the sector has increased to 45.06 percent. Here the relative position has changed marginally from sixteenth to fourteenth among the eighteen districts. Interestingly, the state average of the share of this sector was 42.87 percent in 1994-95 and it is 52.47 percent in 2000-2001. The districts that have more than state average share of the domestic product in 2000-2001 (at constant 1993-94 prices) originating from the tertiary sector are only Kolkata (83.20 percent), Howrah (60.49 percent) and Darjeeling

(59.04 percent). But more interesting than this is the fact that three neighbouring districts of Purulia (49.65 percent), Birbhum (49.19 percent) and Midnapore (48.50 percent) have higher share than Bankura which means that this characteristic feature of the economy of these districts have, in reality, very little impact on their fundamental agrarian production structure and comparatively low ranking in the perspective of human development within the state.

2.3 Wage and employment :

Among the objective indicators of standard of living of the people in a community, wages and employment are no less important than per capita income and per capita consumption.

Table 2.3.1 Block-wise change in agricultural wage rate (Rs.) during peak and lean seasons from 1997-1998 to 2005-2006

Block	1997-1998		1999-2000		2001-2002		2003-2004		2005-2006	
	Peak	Lean	Peak	Lean	Peak	Lean	Peak	Lean	Peak	Lean
Saltora	40	35	40	35	45	40	50	45	55	50
Taldangra	40	35	40	35	45	40	48	45	50	45
Raipur	35	30	40	35	45	40	50	45	55	52
Simlapal	30	25	32	30	45	40	50	45	55	50
Indpur	30	25	35	30	45	40	45	40	50	45
Gangajalghati	33	29	41	37	44	39	50	45	55	45
Bankura-I	35	30	35	30	40	35	45	40	45	40
Chhatna	25	33	25	33	30	25	35	30	40	30
Ranibandh	35	30	35	30	38	35	42	40	42	40
Hirbandh	32	28	32	28	35	32	40	35	40	35
Sarenga	30	25	30	25	35	30	35	30	40	35
Barjora	37	30	42	37	45	40	50	45	55	45
Bankura-II	50	35	60	35	60	40	60	40	60	40
Onda	35	30	40	35	45	40	52	45	55	50
Khatra	35	30	37	32	40	35	45	40	45	40
Mejhia	37	30	42	37	45	40	50	45	55	45
Bishnupur	42	40	45	42	50	45	55	50	62	55
Joypur	45	40	50	45	50	45	55	50	65	60
Kotulpur	50	48	55	50	60	55	64	60	67	64
Sonamukhi	42	40	50	45	55	50	55	50	65	60
Patrasayer	42	40	45	42	50	45	55	50	65	60
Indus	52	48	55	50	60	55	64	60	65	60

Source: Office of the Assistant Labour Commissioner, Bankura

Wage and employment become more significant in the context that per capita income computation is not feasible at the block level whereas per capita consumption data at the district level have their own limitations and at the block level these are completely non-existent.

Wages obviously mean real wages and are interlinked with price level. To begin with, it is therefore, safe to remember that both the concepts of wages and employment are equally beset with conceptual and practical limitations like per capita income and per capita consumption.

The Table 2.3.1 illustrates the movement of agricultural money wages for different blocks in Bankura from the year 1997-1998 to 2005-2006 (at current prices).

As can be seen there are wide variations in the wage level prevalent in different blocks and once again the blocks in the Bishnupur sub-division appear to be better

off. In the blocks which are lagging behind, there are wide seasonal fluctuations in wages leading to migration of agriculture labourers to other districts. The increase of (real) wage over a period of time is also not satisfactory. Unfortunately migration to Burdwan and Hooghly districts from Bankura and specially its drought-prone areas of the western part is till today an indicator of comparatively low level of wages and employment for a large section of population.

2.3.1 Employment situation in the district :

While real wages are very important determinants of the level of living of a large section of people in a community, these are, in fact, of little significance if the wage-earners remain unemployed i.e., in the condition of high rate of 'involuntary unemployment' due to lack of demand for labour and / or structural rigidities in an economy.

Table 2.3.2 Share of workers in total population in 1991 & 2001

District	1991	2001	Rank in 2001
Bankura	35.91	44.73	1
Purulia	43.15	44.46	2
Malda	34.69	40.76	3
Dakhin Dinajpur	34.89	40.75	4
Midnapore	35.19	39.06	5
Cooch Behar	32.14	38.99	6
Jalpaiguri	33.79	38.37	7
Uttar Dinajpur	34.25	38.35	8
Kolkata	33.01	37.66	9
Birbhum	33.15	37.42	10
Hooghly	31.14	36.84	11
Burdwan	30.66	35.49	12
Darjeeling	34.22	35.29	13
Nadia	29.34	35.13	14
Murshidabad	31.51	34.14	15
Howrah	29.10	33.71	16
North 24 Paraganas	28.78	33.44	17
South 24 Paraganas	28.29	32.47	18

Source: Towards A District Development Report, by Biswajit Chatterjee and Dilip Kumar Ghosh of SIPRD, West Bengal, pp 45-46

From the census report of 2001 we get a comprehensive picture of the share of workers in total population and the decadal change in the same during 1991-2001 for all the districts of West Bengal. Table 2.3.2 is partly reproduced from 'Towards A District Development Report for West Bengal' by Biswajit Chatterjee and Dilip Kumar Ghosh of SIPRD, West Bengal to understand the relative position of Bankura district in this context vis-à-vis other districts. Here we find that there occurred maximum decadal change in this district, which, according to the authors of the report, implies effective implementation of different employment generating rural development programmes of the State Government here through the Panchayats. The wage-employment programmes like Employment Assurance Scheme (EAS), Jawahar Rozgar Yojana (JRY) and self-employment programmes like Integrated Rural Development Programme (IRDP) and Swarnajayanti Gram Swarozgar Yojana (SGSY) have played significant role not only in creating greater employment opportunities in the district.

The Human Development Report of West Bengal,

2004 has analysed the employment situation in the State in greater details against the national background. Depending upon the census report of 2001 as well as 55th. round NSSO survey report etc. it has dwelt upon the rural-urban and male-female differences and has even attended to employment on usual status, weekly status and daily status among the different castes in rural areas. But the report includes only one table to examine the changing pattern of employment in the districts to say that Bankura is one of the five backward districts in West Bengal where, even in 2001, workers in the non-agricultural occupations constitute 30 percent or less of the total labour force, the other four districts being Uttar Dinajpur, Cooch Behar, Dakshin Dinajpur and Purulia. The Table 2.3.3 will illustrate the actual conditions of the different districts.

It is seen from the table that Bankura ranks thirteenth among the seventeen rural districts of West Bengal. While this proves the still predominating agrarian structure of the economy of the district, the increase in the percentage of non-agricultural workers during the period 1991-2001 is very significant.

Table 2.3.3 Rural occupation structure in the districts of West Bengal

District/State	Farmers		Agricultural labourers		Non-agricultural labourers	
	1991	2001	1991	2001	1991	2001
Howrah	21.6	9.9	27.7	19.6	50.7	70.5
Darjeeling	33.5	20.6	16	14.4	50.5	65
Jalpaiguri	33.3	23.6	19.5	20.4	47.2	56
South 24 Paraganas	33.1	18.8	33	30.4	33.9	50.8
North 24 Paraganas	34.2	21	32.4	28.5	33.4	50.5
Murshidabad	33.9	21.3	34.6	32.3	31.5	46.4
Nadia	36.3	24.7	33.1	29.1	30.6	46.2
Malda	35.6	21.9	36.7	32.5	27.7	45.6
Hooghly	29.2	20.9	36.5	34.1	34.3	45
Burdwan	30.1	20.4	36.9	41.9	33	37.7
Midnapore	47.4	30.4	26.1	33.9	26.5	35.7
Birbhum	36.5	24.9	40.7	39.7	22.8	35.4
Bankura	43.2	32.6	36.5	37.1	20.3	30.3
Purulia	52.2	33.3	30.7	38.4	17.1	28.3
Cooch Behar	51.8	40.4	28.2	31.8	20	27.8
Dakshin Dinajpur	46.4	34.3	33.4	40	20.2	25.7
Uttar Dinajpur	42.9	38	38.6	43.7	18.5	18.3
West Bengal	38.4	25.4	32.3	33	29.3	41.6

Source: West Bengal Human Development Report, 2004, p 96

2.4 Poverty :

A possible solution to improve the quality of life and reduce poverty must first analyse poverty itself. The meaning and scope of poverty varies with time and space and there has been consistent effort across the globe to understand and address it. Poverty is both an absolute and relative concept. In the context of Bankura (or at least major part of it) absolute deprivation has been very visible. Still there is a challenge in terms of identification of the poor and their aggregation – so that they can be brought under the focus of intervention. Here we have made an attempt to understand poverty in the context of Bankura and its possible reduction strategies.

2.4.1 Studies on Poverty in the district :

That regional inequality has been the most remarkable characteristic feature of Bankura is already pointed out and this is amply testified to in the findings of Prof. Bandopadhyay of Bankura Sammilani College while working for a dissertation work (unpublished) regarding poverty in Bankura district and all other surveys conducted for the purpose and findings incorporated in the two volumes of 'Bankura Zillar Arthanity' published respectively in March, 1989 and September, 1993. A detailed account of the villages surveyed at that time and the percentage of people living below the General Poverty Line and Augmented Poverty Line is given in the Table 2.4.1.

Table 2.4.1 Percentage of families living below General Poverty Line & Augmented Poverty Line in 1990 in four surveyed villages

Village	Per capita income (in Rs.) (Year)	Percentage of families living below the GPL (Rs.1284 at 1983-'84 prices)	Percentage of families below Augmented Poverty Line
Teura (Block-Sonamukhi)	1017.25 (1990)	2.78 percent	58.33 percent
Mouladanga (Block-Bankura-II)	2633.33 (1990)	2.91 percent	33.98 percent
Belboni (Block-Bankura-II)	2027.86	36.73 percent	89.80 percent
Jambedia (Block Bankura-I)	2787.53	54.17 percent	–

Source: Bankura Jelar Arthanity (in Bengali), by Prof. T. Dhar

Assuming that membership in a family is equal for all the villages, the percentage of inhabitants living below General Poverty Line is 25.6 percent. The village of Teura is situated in eastern zone of rich alluvial soil. Similarly the village Mouladanga is near Bankura town and this urban area proximity raises the per capita income level of non-agricultural workers there. The village Belboni also enjoys facilities of being proximate to the Bankura-Durgapur road, but villages like Mauladanga and Jambedia fall in the arid soil zone

without reasonable irrigation potential. The village Jambedia provides an example of the type of villages in the western zone of Bankura district, i.e., drought-prone area without irrigation facilities and adequate employment opportunities for the landless labourers. The relatively high per capita income of the village has other reasons of income inequality among the inhabitants. Though the data presented here is rather old, it does reflect the challenges in terms of poverty reduction in different parts of this district.

Visit to a backward mouza

Some statistics:

Total population: 366

SC population: Nil

ST population: 298

Others: 68

Itamara is a backward village in Hirbandh. In this village misery has mainly been caused by loss of land in the nearby Kangsavati reservoir. When the dam on the Kangsavati river was first constructed the adjoining area got submerged. Around 900 acre land of this village was submerged which has caused serious problem of livelihood for the villagers. Today the village area is only 300 acre of which about 30 acre is homestead land. A major portion of the village land is not cultivable and therefore there is no source of livelihood for majority of people residing. The problem is so acute that the system of money lending is also absent since there is no one with adequate resources to lend money. Most of the villagers migrate to Burdwan for nearly 4 months. The migration takes place a number of times during a year which causes serious hardship to the community and specially to the children who are deprived of adequate education and health care during migration. Wage level in the village is hardly Rs. 35 per day in peak season. Some of the villagers used to do Lac cultivation but some years back the market price of Lac touched a record minimum throwing many of them out of this profession.

Twenty five families in the village are receiving rice/wheat in alternate week under the Antyodaya Anna Yojana. The scale of distribution appears to be as per the prescribed norm. There are three ponds which, if properly re-excavated, will serve the irrigation need for Rabi crop. There is a primary school in the village and mid-day meal has been started in the school. This has given a jump to the number of students attending the school. There is a tube well in the school which somehow meets a part of the drinking water need of the community. There is another tube well in the village. However two more tube wells are required to meet the total drinking water requirement of the community. The women folk collect fuel wood from forests which takes about 4 hours in a day. The ICDS centre is not having foodgrain and so has gone dry. There is a substantial number of children in the village who are not attending the ICDS centres.

The villagers have suggested the names of three ladies who, in their opinion, were the poorest in the village. They were either covered under the Antyodaya Anna Yojana or under the old age pension scheme of the BCW department. There is one leprosy patient in the village who is undergoing treatment. He earns his livelihood by attending cows of different villagers. There is no health centre in the village. The nearest health centre is 2 k.m. away. There is no certain means of transport to the health centre. Patients are sometimes taken on say a cot which is lifted by villagers. There is no sanitary latrine in the village. People in this village mostly suffer from diarrhoea and malaria. Because of poverty the food habit of the villagers is very irregular which frequently results into stomach disorders. The marriage age in this village is generally higher than 18 years.

Analysis :

It appears that there exist more no. of such villages where submergence of cultivable area has resulted into poverty of people living in vicinity. The challenge in such villages is to find alternative means of livelihood where dependence on agricultural land is minimized. This issue has been discussed with the people. They have suggested that the village has 'Etel' type of soil which is perhaps very suited to make tiles. An effort has been started to form SGSY Self Help Groups in the village and train them on tile making. It can also cover Terracota tiles in future. Similarly there are a large number of Palash trees in the village. Villagers are already having the skill for Lac cultivation. Some Self Help Groups are being formed who can be involved in this activity. Taking care of the health / education needs of children during migration appears to be quite difficult. If we are able to generate more employment and migration is stopped, children will perhaps benefit the most. It also appears that women have to spend long hours on fuelwood collection itself. A plan to go for plantation on the wasteland including the land on both sides of the road may help. It will provide fuelwood to the women folk from nearby.

As of now the community is in a highly vulnerable state and it has nothing to fall back upon.

(Source: Office of the District Magistrate, Bankura)

Reference may be made here of two other surveys about the standard of living in Bankura district – one of them undertaken in a slum area of Bankura town in 2006

and the second one in a village in the Chhatna Block, 24 Km. west of Bankura town. The findings are shown in Table 2.4.2.

Table 2.4.2 Findings of survey conducted in slum areas of Bankura and Ethani village in Chhatna Block

Area/Village	Per capita income at current price in Rupees (Year)	Percentage of population living below General Poverty Line	Percentage of population having BPL card and served under Antodaya Anna Yojana
Sikhariapara under Ward No. 10 of Bankura Municipality	8000 (2006) (Per capita income of Bankura = Rs.20500/-approx.)	85 percent (2006) (Poverty Line = \$1 daily = Per capita income of Rs.16000/- approximately)	74 percent
Ethani (Block:- Chhatna)	Monthly per capita consumption expenditure at current prices Rs. 431.87 (2006) (per capita monthly consumption expenditure of Bankura district in rural areas = Rs. 350.17 according to NSSO, 1999-2000)	47 percent (approximately)	45 percent

Source: Report of survey conducted during 2006 to find the economic condition in these areas

As expected, the status of poverty in Chhatna is much worse compared to the Bankura Municipality. We must admit that there are definite limitations and discrepancies in the findings obtained from the surveys conducted on personal initiative. However, the incidence of poverty in Bankura is still much above the national (26.10 percent in 1999-2000) and the state level (27.02 percent in 1999-2000), despite relatively high growth rate in the district in agriculture and the primary sector and also in per capita income level. Besides, the poverty scenario in Bankura is different in its basic character from all other districts of West

Bengal, because here there is a considerable difference from block to block in the percentage of people living below the poverty line. The details are shown in table 2.4.3.

The details as indicated in this table (the only data available so far!) are not free from errors and has been questioned from time to time. Recently another survey namely 'Grain Parivar Samiksha' has been undertaken at the state level in which household data has been captured and a ranking is being done. However, validation of the data is yet to be completed and therefore, has not been quoted here.

Table 2.4.3 Block-wise number of families living below poverty line (BPL)

Block	No. of BPL families	Percentage of BPL families with respect to the total number of families
Bankura-I	7447	42.84
Bankura-II	8400	38.48
Chhatna	15960	49.95
Saltora	7689	34.82
Gangajalghati	11167	41.08
Mejhia	5980	45.75
Onda	16671	44.39
Barjora	14452	43.89
Bishnupur	10996	45.21
Joypur	8999	34.37
Kotulpur	8736	29.3
Indas	9017	30.8
Patrasayer	11592	37.63
Sonamukhi	11528	44.47
Taldangra	10824	49.89
Simlapal	10442	46.53
Raipur	11571	49.98
Sarenga	9409	41.57
Ranibandh	10199	49.75
Khatra	8422	46.87
Indpur	11335	48.19
Hirbandh	6790	49.95
Total for Blocks	227626	42.48
Bankura Municipality	7008	27.84
Bishnupur Municipality	4498	35.70
Sonamukhi Municipality	1204	22.51
Total for Municipalities	12710	29.48
Grand Total	240336	41.52

Source: District Rural Development Cell, Bankura Zilla Parishad

2.4.2 Issue of identification and aggregation :

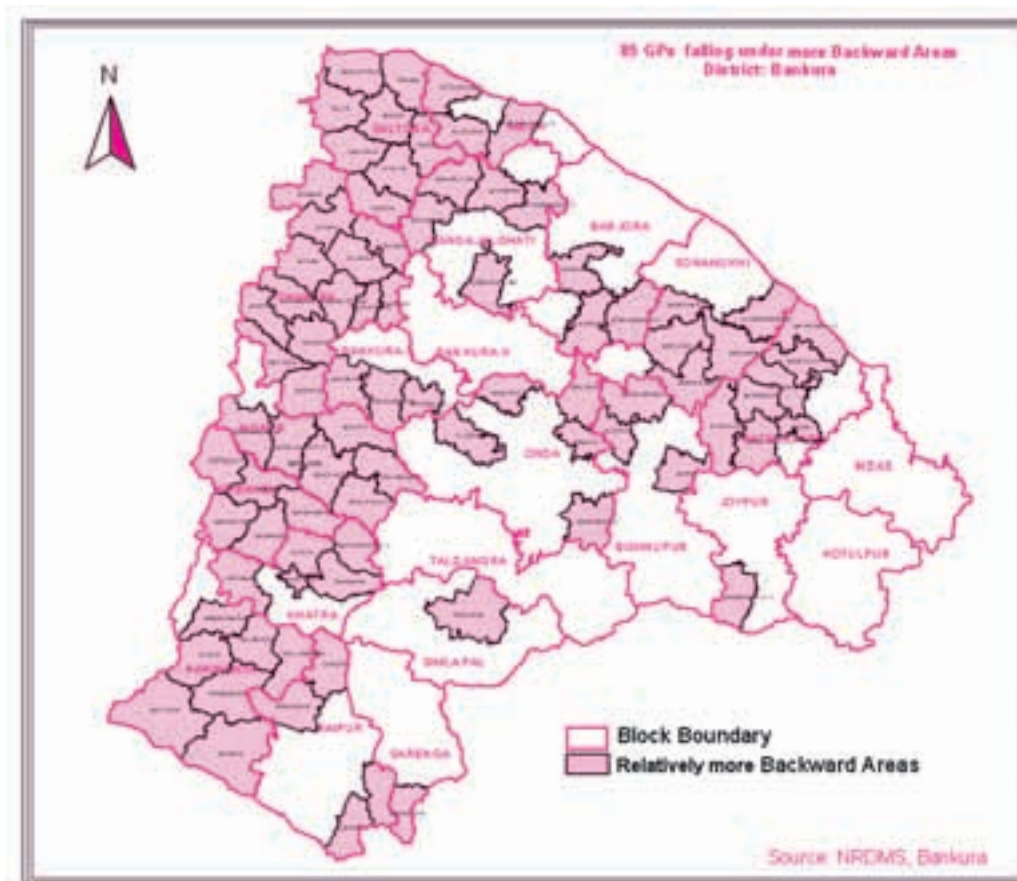
This is the first and perhaps the most important step while addressing poverty. Normally household survey is one of the best options to go about it. However, household survey for entire district at frequent intervals is expensive and not feasible. Since the economy of Bankura is mainly agrarian, it can be safely assumed that the well-being is primarily linked to the 'endowment' available in form of resources like land, water, human capital etc. Thus the first step in such an exercise may be the identification of areas in this district that are poorly ranked on this scale. This will help us in identifying broad areas of deprivation. This is needed

since a large part of the available fund in the district is normally utilized for development of community assets, where priority may be assigned to these backward areas.

We have here made an attempt to identify the backward Gram-panchayats in this district. Four parameters have been identified for the study: (i) proportion of irrigated area to net cultivated area (ii) percentage of SC/ST to total population (iv) literacy rate (v) percentage of agricultural labourers to total population. Equal weightage has been assigned to all the parameters and backwardness index on the scale of 100 has been calculated. All the Gram-panchayats

in the district have been ranked using this methodology. In this process the Gram-Panchayats (falling in the

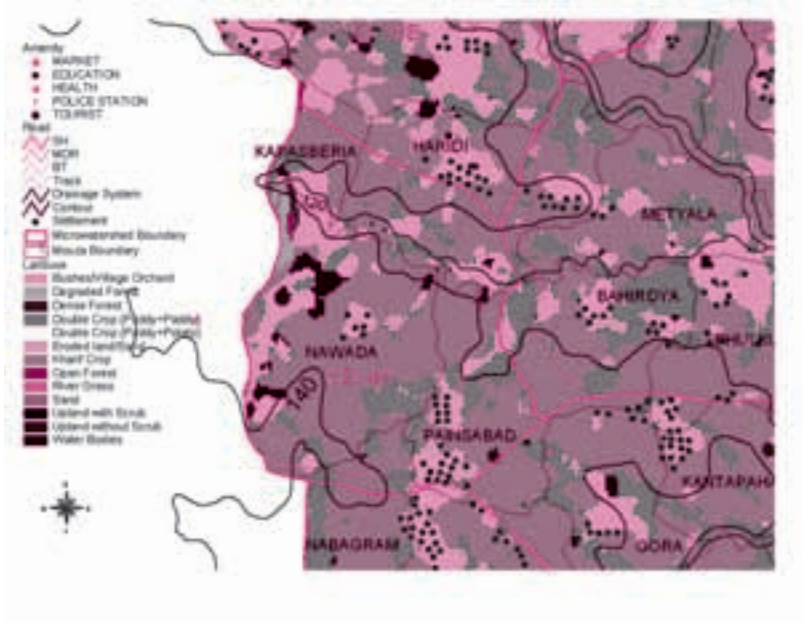
more backward category) have been depicted, which is shown in the map 2.4.1.



Map 2.4.1 Gram-Panchayats falling under more backward areas

As can be seen the backward areas are mostly located in Western and Southern Bankura (which are resource poor!) falling in the hilly and lateritic zone. These areas may be picked up first for intervention. As has been discussed later, Western and Southern Bankura has lot of undulations and this area suffers from very high run off. There is a dynamic relationship between different undulating parts falling in a watershed and as such any poverty reduction strategy must pick up watershed as the unit under focus. One may, therefore, narrow down from, say, backward Gram-panchayat to the watershed level. Open/degraded forest areas and wasteland (as available from the satellite imageries) in these backward Gram-Panchayat may easily be utilized to identify the most backward watershed areas which may be targetted. It has been

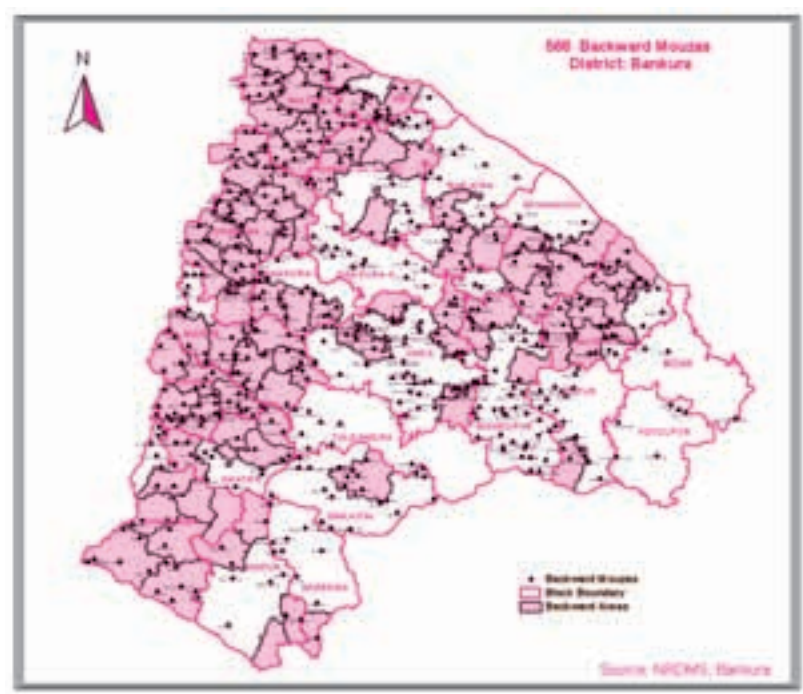
generally the experience that there is more food insecurity in these areas resulting into migration. People are deprived and it is easier to mobilize them for watershed activities in a participatory mode. In fact this methodology has been successfully used in this district under Rashtriya Sam Vikas Yojana (RSVY). A map showing watershed in a degraded area in Chhatna block is shown here as an example. The watershed CD-46 has larger areas of upland with/without scrub and hence has been selected under Rashtriya Sam Vikas Yojana. The watershed layers available in NRDMS centre Bankura has been utilized for microplanning by integrating it with local wisdom. These maps clearly indicate the barren patches of land, hamlet locations which has helped in maintaining equity in the microplan.



Map 2.4.2 Delineated area of CD-46 watershed

The endowment approach thus helps us in broadly defining the areas of intervention. However, this does not mean that the areas rich in endowment will not have pockets of deprivation. In fact as Amartya Sen in his book ‘Poverty and Famine’ has indicated, entitlement finally becomes the over-riding factor in causing starvation. Thus, as a third layer of search we may zoom in further and use some appropriate outcome indicators to pick up the backward mouza. Mouza implies the

smallest revenue unit at village level for which Census data is available. Panchayat and Rural Development Department, Government of West Bengal has undertaken this exercise using two indicators namely female literacy rate and the percentage of marginal and non-workers. 566 backward mouza have thus been identified in this district. These are shown in the district map 2.4.3.



Map 2.4.3 Backward mouzas of Bankura

It may be seen that most of these backward mouzas are again clustered towards the western/southern part of the district. However, there are backward mouza located in resource rich areas also.

Each mouza has generally 7-10 hamlets and the next step may be to go for household survey or hamlet survey (since characteristic of one hamlet is more or less similar) to understand the root cause of deprivation in these backward mouza. It may be easier to identify the poor households at this scale and design appropriate livelihood interventions.

As the last step one may identify vulnerable groups in these backward mouzas such as primitive tribes, lepers, handicapped etc. and interventions for specific target groups may be taken up. Some of the survey results for these backward mouzas have been included in the chapter on vulnerability.

2.4.3 Issue of starvation :

The entitlement to food-grain finally determines food security of an individual. A person can avoid hunger if he owns sufficiently and he enjoys a favourable exchange entitlement for his ownership bundle to acquire the food needed to avoid starvation.

The set of all the alternative bundle of commodities that one can acquire in exchange of what one owns may be called exchange entitlement of what one owns⁵. An attempt has been made here to examine this in context of Bankura. The first factor, which affects a person's exchange entitlement, is his ability to find employment. In rural Bankura, labour is the only asset that a poor generally has. In the district the cropping intensity is 147 percent and most of the backward areas is mono-cropped which generates limited employment (for example 1 Hec. of Aman paddy cultivation creates 175 mandays). As a result, the wage level is also fairly low (Rs. 35/- in the peak season and Rs. 25/- in the lean season). This can, however, be reversed through creation of adequate water harvesting structures (mainly the surface water based) and more emphasis on dry-land farming including horticulture. Increase in command area in Rabi (winter) crop will certainly provide added employment to the poor. Areas which are lying fallow may be brought under social forestry/ horticulture which will create employment.

Intercropping of crops like groundnut and Arhar with horticulture will also give added cash flow in the initial years. Micro-irrigation structures like 5 percent model, 30-40 model (described later) etc. also help in arresting water, increase moisture and enhance scope for added employment generation. Employment generation programme like National Rural Employment Guarantee Scheme has for the first time entitled villagers to get wage-employment and is surely going to reduce starvation. It is also likely to increase wage level with a favourable impact on exchange entitlement.

As far as the non-labour assets are concerned, it is usually very limited for a villager in backward rural areas. Animal husbandary is a fairly common occupation and goatery is usually preferred. Normally the middlemen take advantage of the weak bargaining position of the villagers and the goats are sold at a throwaway price. Because of absence of requisite inputs (medicine, vaccine etc.) the growth of the goats is also slow and the illiterate villagers are cheated in assessment of weight of a goat. A poor person who possesses, say, a patch of land with cashew plants or a piece of land with Babui (fairly common in Bankura) is also not better off. In times of distress the produce is sold off in advance (at fairly low prices). Though the owner possesses the asset, his entitlement to its usufruct is only partial. Those who migrate leave their assets and are not able to manage and make optimal use of it. A difficulty with ownership of upland (area not under cultivation) is that the entitlement slowly becomes nebulous because of non-use and there are cases of encroachment.

The next factor, which determines exchange entitlement, is the capability of an individual to produce an economic good and the price at which it can be sold. Generally villagers in Bankura possess low production capacity. There are of course a large number of rural artisans who are gifted with very high level of skill. However, because of poor access to credit and inability to handle market, they hardly have the opportunity to transform themselves into entrepreneurs. The fishing hook makers in Barjora, Baluchari weavers of Bishnupur or Neera collectors from palmrya and date palm – all are generally victims of the distorted production relation with middlemen and operate just as the wage earners. It is not easy to bring these rural

⁵ Poverty & Famine- an essay on Entitlement and Deprivation by Prof. Amartya Sen, p3

artisans out of the clutches of middlemen. Their literacy level is also low and are frequently cheated when the accounts are settled. A process of empowerment has to be initiated including micro-credit linkages and improvement of literacy to reach a just and fair system.

The exchange entitlement of the poor gets further affected when a person takes loan (in crisis) from informal sources like ‘Mahajan’ (the village money lender). The rate of interest is generally so high (sometimes as high as 200 percent!) that the person is not able to come out of the vicious cycle and a large part of his income is drained away. There have been cases when it has taken 6 months for a labourer to free himself from loan obligations by giving free labour. This calls for alternative credit mechanism, which is flexible and soft on the loanee. The Self Help Group movement has been very effective in meeting this gap by providing soft loan to the members in moments of crisis and thereby reduce their vulnerability. Kisan Credit Card (KCC) has also provided the farmers the much needed cushion to meet the working

capital need. For artisans in the urban areas the ‘artisan credit card’ is proving to be a good help.

A person becomes prone to starvation if the exchange entitlement worsens due to the factors indicated above. The factors indicated above have been found relevant for this district. Thus any poverty reduction scheme must be designed to address them. It is not just sufficient to initiate livelihood interventions in villages. The model must be fair and just and should fetch the poor his due entitlement. In the discussions that follow later an effort has been made to illustrate this further through case studies.

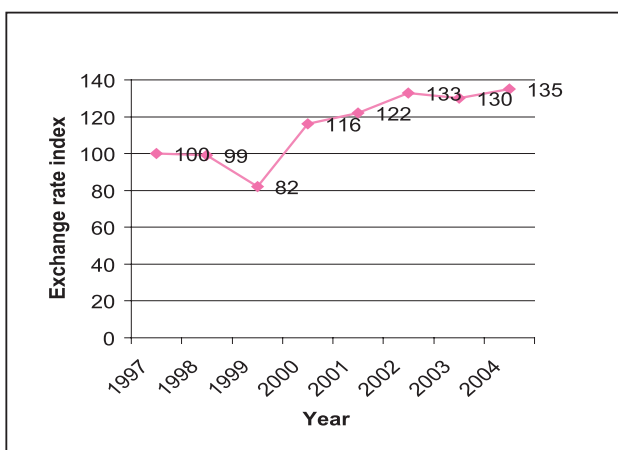
Let us now see the variation in exchange entitlement to food-grain against labour for the six areas in this district over 1997-2004.

The wages have been obtained from the data available with the records lying with district officials of Labour Department, while the food-grain price has been provided by the Agricultural Marketing Department.

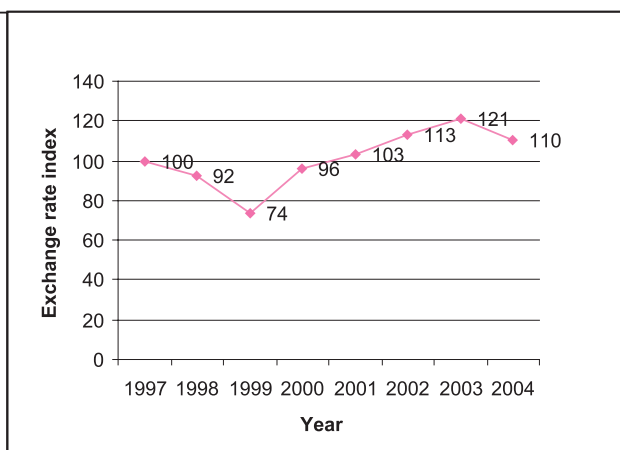
Table 2.4.4 Exchange rate indices for Bankura municipality

Year	Cost of rice (common) (Rs. per Quintal)	Price index for rice (common)	Wage (Rs. per day)	Wage index	Exchange rate index : labour vis-à-vis rice (common)
1997	720.00	100	35.00	100	100
1998	780.00	108	35.00	100	92
1999	979.00	136	35.00	100	74
2000	855.00	119	40.00	114	96
2001	797.50	111	40.00	114	103
2002	725.00	101	40.00	114	113
2003	765.00	106	45.00	129	121
2004	845.00	117	45.00	129	110

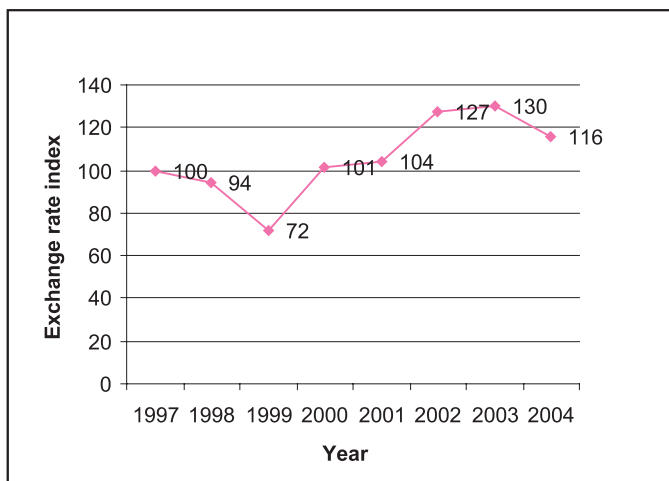
Source: Office of the Assistant Labour Commissioner, Bankura & Agricultural Marketing Department, Bankura



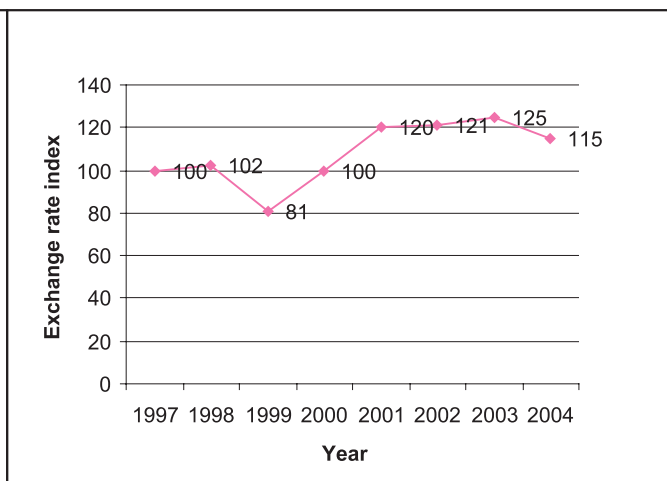
Graph 2.4.4 Exchange rate indices for Bishnupur



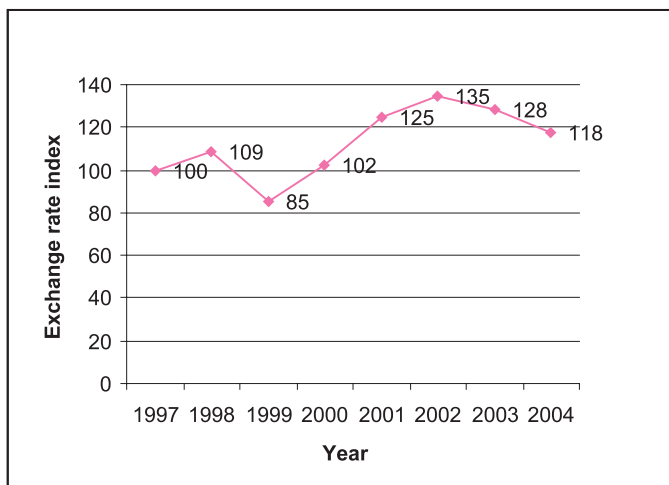
Graph 2.4.5 Exchange rate indices for Bankura Municipality



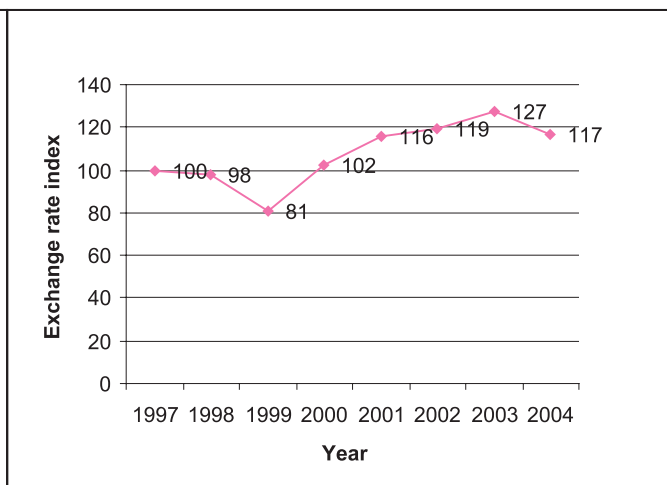
Graph 2.4.6 Exchange rate indices for Jhantipahari (Chhatna)



Graph 2.4.7 Exchange rate indices for Kotulpur



Graph 2.4.8 Exchange rate indices for Indas

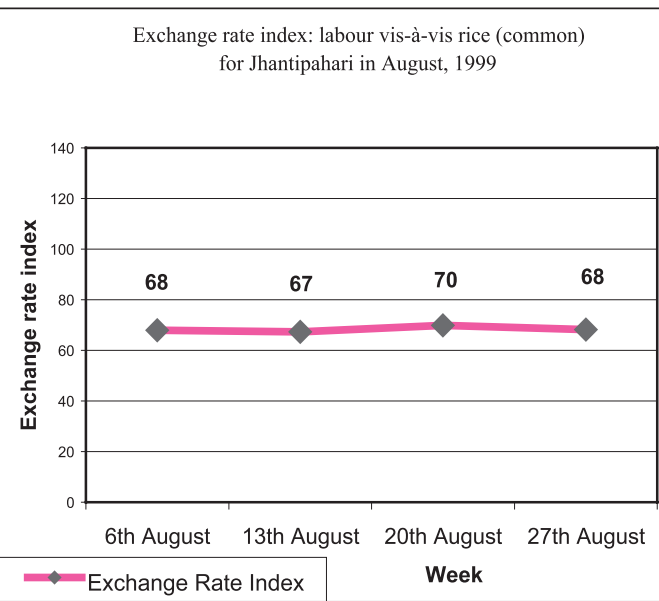
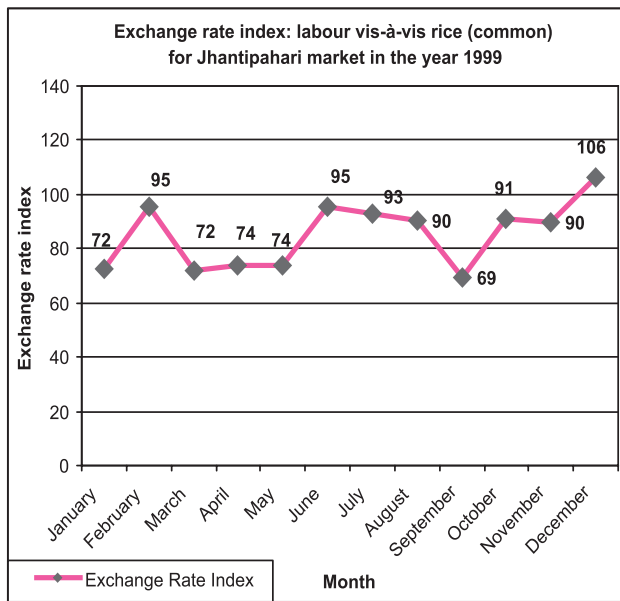


Graph 2.4.9 Exchange rate indices for Khatra

(Sources: Department of Agricultural Marketing & Office of the Assistant Labour Commissioner, Bankura)

A serious decline in trend of the exchange rate emerges from the data in the year 1999 for all the six different regions in the district. The worst affected area is Jhantipahari (in Chhatna) followed by Bankura. Indus has been least affected. One may note that Chhatna is one of the most backward blocks in this district. If one goes back to the human development ladder, Indus

block has been shown as the best on the human development ladder and the same relative position continues here. This is a reflection of the relative state of possible food insecurity in the district. The monthly and weekly exchange rate index for 1999 have been depicted by graphs 2.4.10 & 2.4.11.

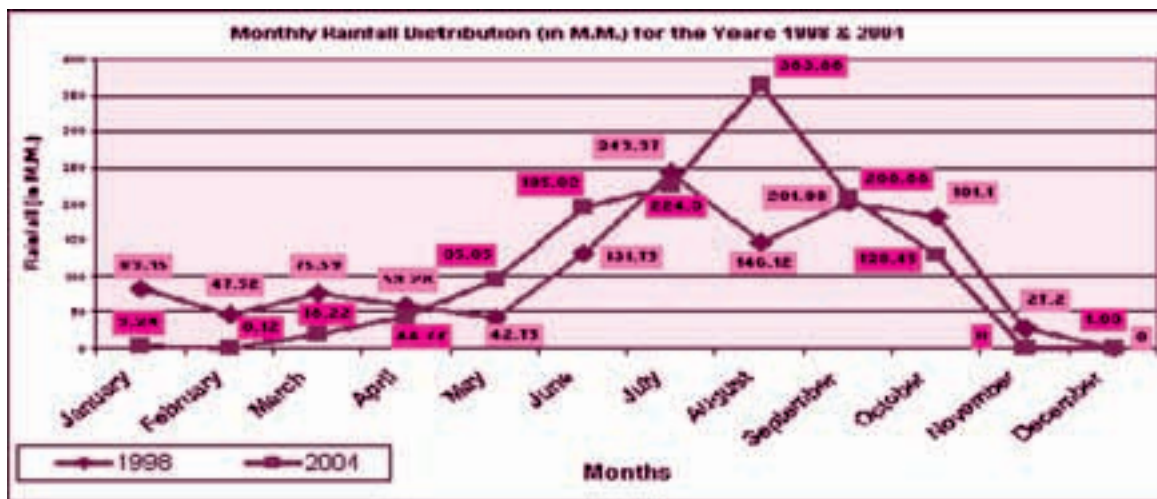


2.4.10 Monthly analysis of exchange rate index for Jhantipahari in the year 1999

2.4.11 Weekly analysis of exchange rate index for Jhantipahari for August in the year 1999

As can be seen there has been a decline of the index up to 33 percent! There are, of course, wide fluctuations also. However, one finds the situation much worse in lean season (March-May) since it is mostly a mono-

cropped area. It is in this period that majority of population migrate to adjoining districts to participate in Boro (high yielding paddy) cultivation.



Total Rainfall in 1998 is 1241.8 m.m.

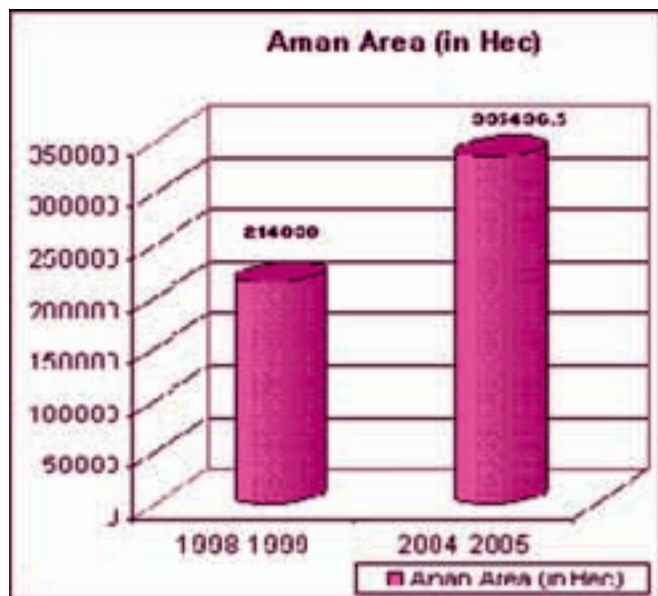
Total Rainfall in 2004 is 1283.54 m.m.

2.4.12 Monthly rainfall distribution (in mm.) for the years 1998 and 2004

Source: Office of Principal Agricultural Officer, Bankura

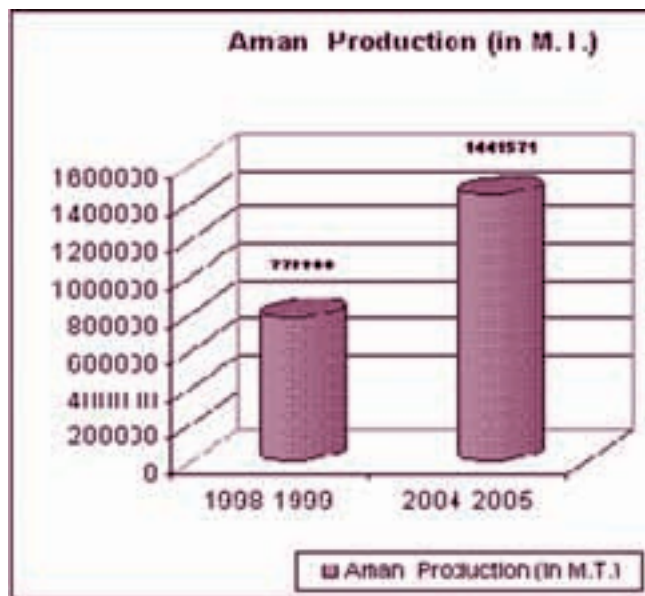
On further analysis the main reason for the decline in exchange rate index has been found to be nearly 35 percent rise in price of rice (common) in 1999. It is seen that the production of paddy had reduced drastically due to erratic rainfall during 1998. The total rainfall during 1998 was 1241.8 mm, which is normally sufficient for a good harvest, provided it is well distributed. We have compared below the production in 2004-'05 and 1998-'99, the two years for which

rainfall was similar but due to the erratic distribution in 1998 the area under cultivation got reduced and yield was approximately half of the year 2004-'05. In fact, in 1998 the district suffered a drought-like situation. The price rise of rice in 1999 might have been primarily due to low production. However, if rice is made available from outside and the public distribution system works well, the price may be stabilized and the exchange rate may remain favourable.



2.4.13 Area of Aman cultivation in 1998-1999 and 2004-2005

Source: Office of Principal Agricultural Officer, Bankura

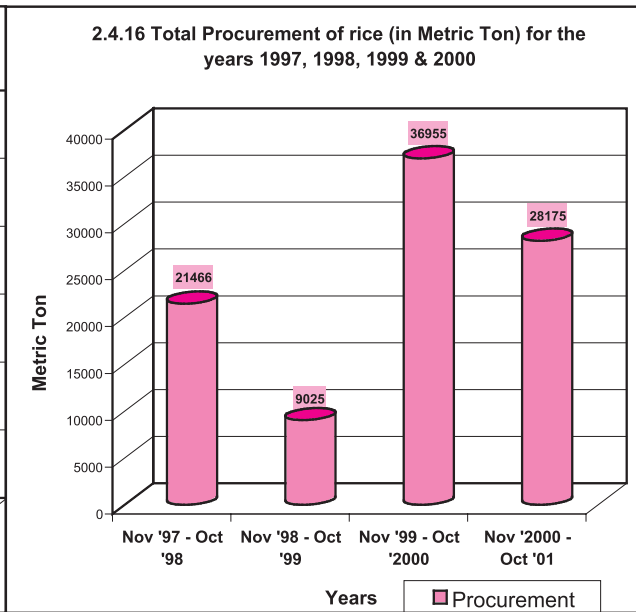
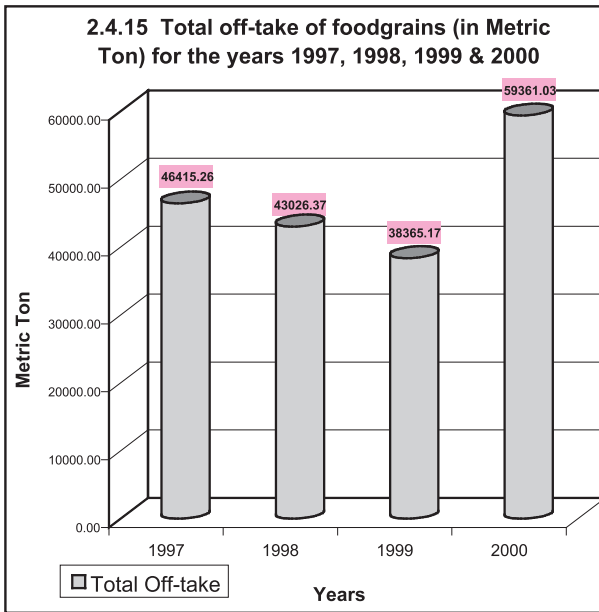


2.4.14 Aman production in 1998-1999 and 2004-2005

From the bar diagram 2.4.15 we can have a look at the off-take of foodgrain through the public distribution system during the period 1997-2004.

It is seen that in 1999, when the crisis was maximum, the foodgrain offtake was also minimum which is definitely alarming. In the bar diagram 2.4.16 we have depicted the foodgrain procurement during the period from November, 1998 to October, 1999.

As can be seen the local foodgrain procurement has also been less during the crisis period. In fact, major portion of public distribution system is fed from local procurement. Foodgrain mobilized from outside the state generally consists of raw rice, which the local people do not consume. This results into a shortfall of foodgrain offtake.



Thus erraticity of rainfall in this area has a large impact on the extent and depth of starvation in this district. It is seen that small individual water harvesting structures located near the agriculture land of marginal farmers act as a 'shock absorber' against the unpredictable precipitation. Generally the land of the poor is located away from a water source and as such a portion (generally 5 percent of his land) may be converted into a small pond. Such structures have been taken up on a wide scale in this district under the National Employment Guarantee Scheme.

Employment generation programmes may be taken up to provide livelihood in such crop failure situation and may help increase the wage-level and the purchasing power of community. Similarly, if one has to take care of and contain the fluctuations in food-grain production, one needs to shift to dryland farming in these areas. High yielding varieties of rice requiring longer spell of rainfall need to be avoided unless there is scope for assured alternative sources of irrigation. Similarly the public distribution system must function effectively to avoid starvation.

2.4.4 Principles of poverty reduction :

Based on the discussion above and keeping in mind special features of Bankura, following principles may be adopted for formulation of poverty reduction strategy for this district :

- Identification of backward areas on a broad scale (say, on a Gram-Panchayat level).
- Assignment of priority to those areas in terms of resource flow for community asset creation.
- Watershed approach for integrated land and water management in western and southern Bankura (watershed having larger tracts of wasteland may be given priority).
- Identification of backward mouza on suitably chosen outcome indicators and identification of backward hamlets within the mouza.
- Household survey of the backward hamlets to identify barriers to human development and design of appropriate intervention at micro-level for generation of livelihood.
- Impetus to growth through sectoral intervention.
- Peoples' contribution in form of labour, capital or material to ensure cost-reduction, ownership and sustainability and peoples' participation in planning and implementation.
- In social sector where government is the prime service provider – creation of a centralized database to identify uncovered areas.
- Special intervention for highly vulnerable groups (for example, lepers, Sabar community, migrant population).

- j. Institutional support and capacity building.
- k. Financial sustainability either through reinvestment of retained earning or through credit/revolving fund.

We have already applied some of these principles earlier in this chapter. A large number of case studies have been taken up later to elaborate the others.

2.4.5 Relative position of the district regarding poverty :

The Human Development Report of West Bengal, 2004 gives us an account of poverty in the different districts of the State, based on the National Sample Survey Organization (NSSO) 55th. round (1999-2000) survey data on consumer expenditure. The state-specific poverty line for West Bengal as determined by the Planning Commission is Rs. 350.17 for the rural and Rs. 409.22 for the urban areas. The overall state-specific poverty line calculated through assigning

weights to rural and urban poverty line equivalent to their respective share in total population of the state is Rs.376.70 per capita per month. The relevant parts are reproduced in Table 2.4.5.

Thus in 1999-2000, Bankura was the land with more than 50 percent of its population living below poverty line in both rural and urban areas. Of other 16 districts, only Murshidabad (with per capita income of Rs.13392.29, i.e., much less than that of Bankura) has nearly 50 percent poor people in its villages and towns. And while Purulia far surpasses Bankura district regarding percentage of poor people in the countryside and Birbhum comes next to Bankura, the urban poverty is disproportionately low in Purulia and Birbhum also stands in a better position than Bankura in this context. The crux of the problem lies in the fact that both Purulia (with per capita income of Rs.13044.67) and Birbhum (with per capita income of Rs.12791.72) are in a lower ladder of development when it is judged only in terms of income per capita.

Table 2.4.5 Percentage of households living below poverty line in rural and urban areas

District	Percentage of households living below poverty line	
	Rural area	Urban area
Kolkata	—	11.17
Howrah	7.63	1.33
North 24 Paraganas	14.41	9.99
Burdwan	18.99	17.00
Darjeeling	19.66	15.21
Midnapore	19.83	19.25
Hooghly	20.43	11.43
Cooch Behar	25.62	15.44
South 24 Paraganas	26.86	8.50
Dinajpur	27.61	19.29
Nadia	28.35	15.51
Malda	35.40	6.60
Jalpaiguri	35.73	61.53
Murshidabad	46.12	49.56
Birbhum	49.37	21.83
Bankura	59.62	52.38
Purulia	78.72	6.47

Source: West Bengal Human Development Report, 2004, p 78

2.5 Livelihood strategy :

Having discussed the broad profile of the district, poverty prevailing therein and its determinants regarding standard of living in previous chapters, we now shift our attention to the disaggregated picture of the district and the possibilities to improve the standard of living. In this part the focus is on livelihood generation, which is the key to improve the quality of life. Resource-based livelihood is most appropriate for this district. An attempt has been made here to explore the same.

2.5.1 Management of land and water for sustainable livelihood :

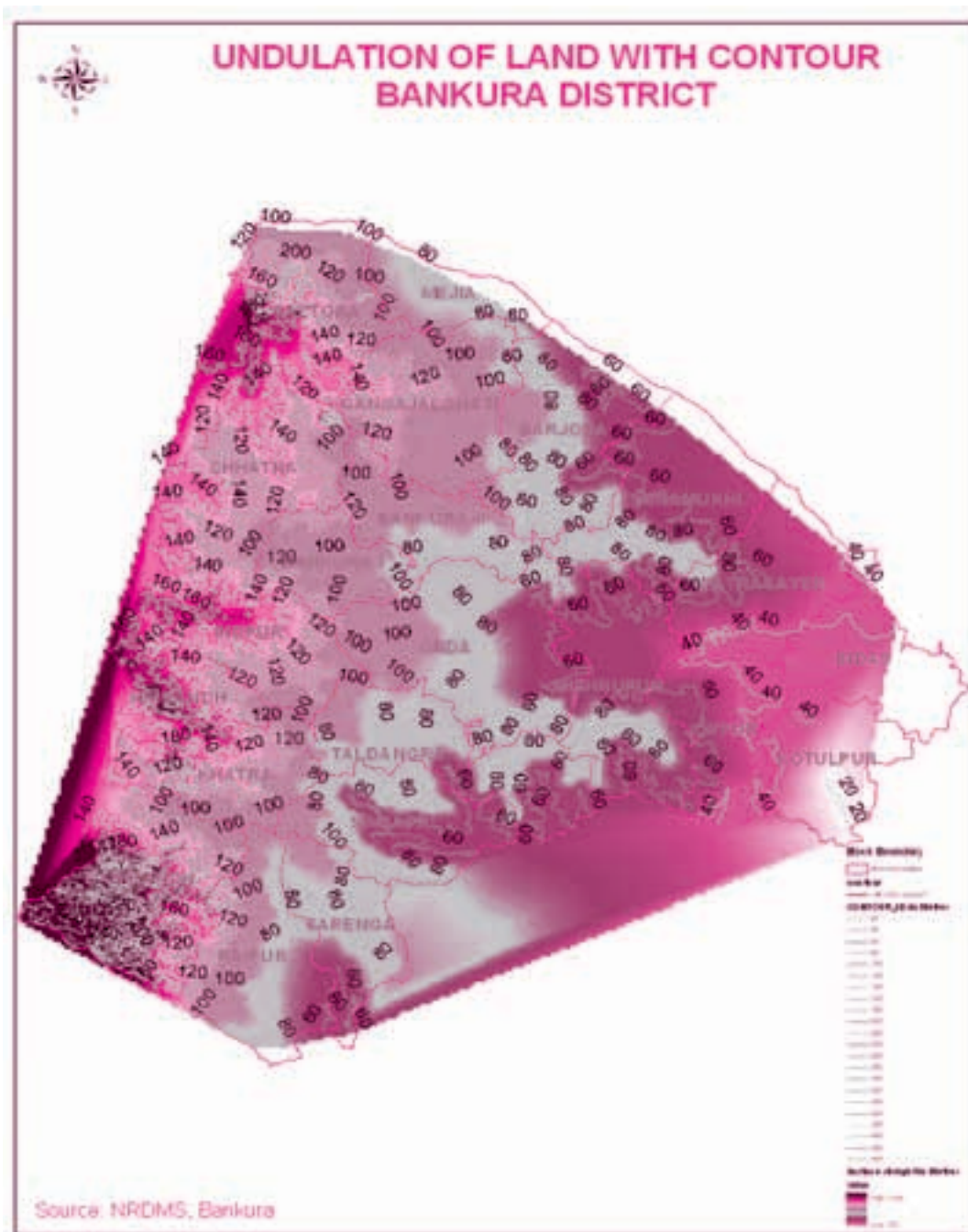
Land :

This district forms an intermediate tract lying between the rice-producing alluvial plains of Bengal to the east and the Chotonagpur plateau on the west. The entire sub-division of Bishnupur as also some of the eastern blocks of Sadar and Khatra sub-divisions, namely, Gangajalghati, Barjora, Onda, Simlapal and Taldangra may be broadly described as a level country not materially different from the flat plains of the adjoining districts of Bardhaman and Hooghly. Along the middle of the district, the ground-surface rises gradually in undulating plains. The elevation becomes more pronounced towards the west where the land is interspersed with hillocks and broken up into low ridges and valleys. Along the western boundaries there are laterite ridges covered with sparse forest growths and pleasant valleys. Towards the extreme north-west, the undulations become still more pronounced as the Chotonagpur plateau is reached. The district may thus be divided into three topographic regions: the hilly country to the west, the connecting undulating tract in

the middle, and the level alluvial plains to the east — one indistinguishably merging into the other.

Agro-ecologically and socio-economically it is the poorest region in West Bengal. Annual rainfall varies from 1100 mm. to 1400 mm. But it is erratic and 80-85 percent of the total rainfall is received during the three to four months monsoon period from June to September. Moreover, as the land is undulated and laterite and porous sub-soil usually contains very poor moisture, erratic rainfall becomes a potential threat to the crops. Fluctuating rainfall with intermittent drought spell between two successive rainfalls make the crop, generally the Kharif crop, very vulnerable and affects the yield seriously. In case the drought spell lengthens, it takes a heavy toll on the crop and resultant low output and low income traps the farmers, with very small holding size, in a vicious cycle of bridging the gap with loan from private lenders.

“The low-land and medium land are bounded and levelled. In the eastern part of the district extensive paddy fields stretching upto the horizon are emerald during the rains, golden yellow in autumn with the promise of a rich harvest and parched at dry in hot weather. The cultivated expanses are fringed by quiet, restful hamlets nestling amidst clumps of bamboos, groves of mangoes and plantains with slender palms raising their leafy heads here and there.” (West Bengal District Gazetteer). The uplands, which account for around 25 percent of the total area, are sloping, very often unbounded and prone to runoff and erosion. Such soils are shallow and acidic with very poor fertility and low water holding capacity. In these uplands, which covers an area of 1,76,915 hectare, cultivation of paddy is not remunerative.



Map 2.5.1 Undulation of land with contour of Bankura

(Source: NRDMS, Bankura)

The process of fluvial and wind erosion and the process of deposition of eroded materials are two distinct aspects of the problem of soil erosion. Land of Bankura, particularly in the northern and western parts, is mostly lateritic and undulating in nature. Accordingly a good portion of the uplands is subject to erosion hazards because of the absence of adequate vegetative cover and low moisture holding capacity of the soil. The uplands are, therefore, becoming poorer with the gradual removal of top soils; the rivers, streams and even the tanks and other water reservoirs are getting silted up. In some parts, even the cultivated lands are often damaged due to deposition of sand and gravels and eating away of the cultivable lands by expanding gullies.

The land-use statistics of Bankura as shown in Table 2.5.1 are generated from the INSAT 1C/ 1D satellite image (year 1999). The utilization pattern is not a constant feature. It changes with the lapse of year. Wastelands are reclaimed, more and more areas come under double-cropping and cropped area varies from year to year due to changes in natural phenomena, afforestation is done and, at the same time, through cutting and felling, area under open forest also expands.

Table 2.5.1 Land use pattern of Bankura

Total geographical area	687387	Hec.
Area under single crop	241992	Hec.
Area under double crop	106748	Hec.
Forest area	119214	Hec.
Open forest	20712	Hec.
Degraded forest	57084	Hec.
Eroded land	33002	Hec.

Source:- NRDMS, Bankura

The eastern and central parts of the district consisting of entire Bishnupur sub-division and Bankura are the most populous. Population density of this tract is 577 per Sq. Km. Population density of the rest of the district, which covers 68 percent of the geographical area, is 411 per Sq. Km.

The reasons for the difference in the density of population in the two aforesaid tracts are not far to seek. The eastern tract, which forms the lower and richer parts of Darkeswar and the Damodar basin in the district, is a fertile alluvial plain capable of sustaining a

denser population. All the municipal towns fall in this region. The south-western part of the district is extensively covered with scrub-jungles or forests. It exhibits a pronounced undulation and there are numerous groups of hills and isolated peaks in this area which forms the eastern fringe of the Chotonagpur plateau. It is accordingly less cultivated than the former region. There are large expanses of barren lands here with narrow stretches of cultivable lands formed of recent alluvium. The density of population in the two tracts, therefore, varies almost in proportion to their relative agricultural potential.

The settlement pattern in the district varies from nucleated villages to dispersed homesteads and hamlets. Villages are generally located on higher ground, big villages are divided into smaller hamlets called 'para' or 'tola', which are generally based on caste or lineage or occupations. Poorer and lower castes live in relative isolation from the central cluster occupied usually by higher castes. Santal villages are mostly of a linear type with houses facing each other along a central road. Again the character of the villages differs considerably in the east and west of the district. In the east, where much of the land is rich loam, able to support a numerous population, we find closely packed villages, surrounded by picturesque groves of trees. In the undulating tract to the west, where only the ridges afford sites for villages and in the hilly country, one usually finds small and scattered hamlets.

So, for any analysis regarding deprivation from or attainment of a decent standard of living, functioning of agriculture sector remains important. The farming system of the area is subsistence agriculture, with slowly emerging cash-based systems. The crop-pattern here is tilted heavily towards paddy cultivation with traditional agricultural practices. Low and medium lands are cropped almost exclusively with Kharif rice. Unconducive topography, very small size of land holdings, poor irrigation coverage, low water-retention capacity of soil, insufficiency of many basic nutrients essential for normal crop etc. offer limited scope for increasing productivity. Extent of farm mechanisation is low due to lack of awareness among farmers. On the other hand, response to crop diversification is poor and the pace of change of cropping pattern is slow.

Table 2.5.2 Result of testing of 3353 number of samples of soil at different locations of Bankura

Ingredient	Low	Medium	High
Nitrogen	41.2%	44.2%	14.6%
Phosphate	76.2%	20.6%	3.2%
Potash	20.6%	71.1%	8.3%
P ₂ O ₅	76.20%	20.60%	3.20%
K ₂ O	20.60%	71.10%	8.30%
Quality	Normal	Acidic	Alkaline
pH of the soil	13.30%	85.10%	1.60%

Source: Office of the Principal Agricultural Officer, Bankura

In the Sadar sub-division and Khatra sub-division, the local names for different classes of soil and crops grown on them are as follows. The lowest tracts lying in the valleys and depressions, where rain-water percolates from neighboring uplands rendering them sufficiently moist are called 'Bahal', 'Sol' or 'Sali' lands which are best suited for growing Aman paddy. The lands just above there on the rise of slopes are called 'Kanali' which are also capable of producing good Aman. Terraced lands higher up the slopes constitute the 'Baid' lands, which depend largely on good and evenly distributed rainfall for producing crops that might fall altogether in a bad year. Untraced uplands growing a scanty Rabi crop represent the 'Tar' or 'Danga' lands, which are of little use from the agricultural point of view but is good for horticulture.

In the Bishnupur sub-division, the alluvial soils are broadly classified into 'Sali' and 'Suna' land. While the former are mainly used for the cultivation of paddy, the latter produce various crops, which are sugarcane, oil-seeds, and superior varieties of rice. In the richest Suna land, betel-leaves and vegetables are also grown. Another important difference between these two kinds of land is worth mentioning. While Sali lands are

allowed to lie fallow every third or fourth year, the Suna lands never remain uncultivated.

From the east to the west of the district the land-use pattern undergoes a pronounced change varying with differing soil conditions. The alluvial tracts to the east are best suited for cultivation of crops that require a good amount of moisture and most of this area is double-cropped. 'Patit Danga' or unculturable wastelands are not frequently met although sheet and gully erosion of the slopes and banks of drainage channels have rendered some parts of this area totally unfit for cultivation. Such lands with rock outcrops and cankars are so difficult for agriculture that they are either left fallow or are heavily grazed. The Baid lands, occurring at a level lower than that of the Patit Danga, is covered with sandy loam and are given to paddy cultivation, but the yield is very low. The Kanali lands are found at a still lower level and, with an assured moisture supply, are given to paddy cultivation, the average yield being better than that of Baid land. In between Kanali and marshy area, where the water table is very higher and the surface moisture ample, occurs Sol or Bahal type of land with loamy moist or clayey soils suitable for cultivation of paddy or summer vegetables. Cropping intensity as a whole is as low as 147 percent. The uplands, which are locally called Tanrh and Baid constitute about 47 percent of total land and medium land, which is called Kanali, constitutes 40 percent of the total land.

Farm sizes are declining with the rapid growth of population. Almost all households produce food for subsistence, though this is usually not sufficient to meet their needs and so other sources of income are needed. The most important alternative sources are wage-labour, collection and sale of non-timber forest produce (NTFP), wage-employment based public works schemes, and, in some areas, small industrial and mining wage-labour. Seasonal migration for wage-labour is common.



Map 2.5.2 Physiography of Bankura district (Source:- NRDMS, Bankura)

Ground-water :

Livelihood generation is closely associated with water availability. Let us now understand the ground-water condition in the district.

(i) Hydrogeology :

The district of Bankura shows diversified hydrogeological characters that do not resemble with the plains. Based on geology and mode of occurrence of ground-water, the underlying area of the district has been divided into three sectors: (i) Western sector-covered by crystalline rocks of Archaean age, (ii) Middle sector-covered by laterite and Older Alluvium formation of Pleistocene age and (iii) Eastern sector-covered by recent alluvium.

(a) Western Sector :

The area lying west of the line joining Barjora ($23^{\circ} 25'$: $87^{\circ} 18'$), Beliatare ($23^{\circ} 19'$: $87^{\circ} 13'$), Bankura ($23^{\circ} 14'$: $87^{\circ} 28'$) and Bibarda ($23^{\circ} 03'$: $87^{\circ} 02'$) is covered by crystalline rocks of Archaean age. The crystalline rocks viz granite gneiss, mica schist, amphibolites, hornblende schist, gneiss and anorthosite etc., are weathered down to varying thickness from 6 mts. to 15 mts. below ground level (BGL) and are well-jointed, fissured and fractured. In a small area near Barjora, sedimentary deposits of Gondwana age occur. They are overlain by laterites and older alluvium deposits.

(b) Middle Sector :

The fringe area includes the highlands between the rivers Damodar and the Jaipanda and is covered by thick mantle of laterite and older alluvium deposits of Pleistocene age. To the west thin laterite capping, primary in nature, overlies the crystalline rocks. The thickness of laterite capping increases gradually towards east and south until they are covered by recent alluvium. Towards east, thick laterite capping of detritus origin is followed by a thick yellow and gray colour sticky clay, silt, sandy clay, sand of varying texture from fine to very coarse and gravel. The aforesaid succession may extend up to the depth of 300 mts. BGL or more.

The results of exploratory boreholes and other production well reveal that the basement rock (granite gneiss) occurs at a depth of 56-60 mts. BGL around Gobindpur (23° 19′: 87° 14′) and at 280 mts. BGL at Oanchal (23° 13′: 87° 17′) and no such basement rock was encountered at a depth of 304 mts. BGL at Rupatganj (23° 19′: 87° 25′).

(c) Eastern sector :

The area along the river valleys and east of 87° 35′ longitude is underlain by thick alluvial sediments of various grades ranging from clay to gravel belonging to late Tertiary and Quaternary age.

(ii) Ground-water condition :

The primary source of ground-water is rainfall, a part of which is lost as evaporation and transpiration and another part moves as surface run-off and remaining part percolates into the ground from direct rainfall or by lateral infiltration from surface water-bodies to form saturated ground-water zone. Discharge of ground-water takes place by sub-surface inflow to contiguous areas and by seepage to stream channel beside extraction of water by ground-water structures, viz., dugwell, tubewell etc.

Ground-water in the district occurs both under water-table condition and confined condition. Ground-water in the near surface aquifers occur under water-table condition and in deep aquifers, under confined or sub-artesian condition in favorable terrain.

The water-table generally declines with varying gradients from west, north-west to east and south-east

direction and broadly conforms to the topographical slope. In the western sector comprising mainly crystalline rock ground-water occurs in the weathered mantle of varying thickness from 6 mts. to 15 mts. under water-table condition. As the water-bearing formations are discontinuous and at places ground-water is held under pressure in the fractured conduits, some water is also retained in the thin cover of soil and alluvium mantling the stream channel. The weathered materials mainly consist of disintegrated products of gneissose and schistose basement rock. In many parts of the area lateritic gravel lies on the weathered basement rock that attributes favorable condition for percolation of rainwater. The weathered mantle in crystalline rock yields low discharge and shows slow rate of recuperation of water in the well, which is due to the poorly sorted nature of weathered materials and hence indicate low to very low permeability of the water-bearing formation. The area is, therefore, not suitable for any type of well structures. However, large-diameter open-wells excavated to a depth of 20 mts. or less having diameter of 4 mts. to 5 mts. with large available recharge-area provide more suitable means for developing ground-water source of the area. The sites are to be selected in specific locations having adequate thickness of weathered zone coupled with crisscross joints or fracture system.

The blocks of Bankura-I, Chhatna, Saltora, Gangajalghati, Ranibandh, Khatra, Hirbandh and Indpur fall under this sector.

In the middle sector covered by laterite and older alluvium, ground-water occurs in the moderately thick to thin aquifer under unconfined to semi-confined condition. In this region, the ground-water is mainly abstracted through open dugwell with limited number of low-duty tubewells. Heterogeneous character of the water-bearing formation with complex aquifer geometry prevails in the area and is feasible for open dugwells of 10 mts. to 15 mts. depth having 3 mts. diamts.. The sites are location-specific and hill slopes are to be avoided. Low-duty tubewells are also feasible in favourable area. The yield of such low-duty tubewells (75 mts. to 100 mts. depth) varies from 20 to 25 cubic metre/hour. One-cusec medium-duty production tubewells are also feasible in specific location within the depth of 150 mts. BGL. The complete or part of the blocks of Bankura-II, Mejia, Taldangra, Simlapal, Raipur & Sarenga fall under this sector.

In the eastern alluvial area as in Indus, Kotulpur and Joypur Blocks ground-water occurs under confined condition below a blanket of clay whose thickness varies around 10 mts. Medium-duty tubewells are also feasible at Bishnupur, Joypur, Kotulpur, Sonamukhi, Patrasayar, Indus and part of Barjora and Onda blocks where several saturated granular zones are likely to occur in the depth span of 40 mts. to 200 mts. BGL discharging 90 to 180 cubic metre / hour.

(iii) Depth of water level :

In the year 2001-2002 it has been observed that during the pre-monsoon period there was a great variation in

water-level in different part of the district. In a very small part of Patrasayer and Simlapal blocks the water-level was below 3 mts. BGL. In some of the spots auto-flow faintly existed. In a large part of Sonamukhi, Patrasayer, Indus, Barjora, Mejia, Simlapal, Taldangra and a small part of Raipur, water-level was between three to six mts. BGL. The south-western part of Ranibandh and Raipur, western part of Chhatna and Khatra, eastern part of Joypur, Bishnupur and western part of Indus and Kotulpur and in some patches of Taldangra, Onda and Barjora, the water level was above 10 mts. BGL. In rest of the District, water-level was between 6 mts. and 10 mts. BGL.

Table 2.5.3 Water-level condition from 1998 to 2002 at different hydro-geomorphic zones in Bankura district

Rock type	Hard rock area in the west	Hard rock fringe area of the middle	Alluvial area of the east
Blocks covered	Bankura I, Bankura-II, Chhatna, Saltora, Gangajalghati, Indpur, Khatra, Ranibandh, Mejia (part), and Raipur (part)	Bishnupur, Onda, Barjora, Simlapal, Taldangra, Mejia (part), eastern part of Sarenga	Bishnupur, Joypur, Kotulpur, Sonamukhi, patrasayer and Indus
Area in Sq. Km.	2904	2129	1848
Average depth to water-level condition			
(from 1998 to 2002)	7 mts. to 8 mts.	7.54 mts.	6.35 mts.
Fluctuation (average)	0.85 mt.	1.52 mt.	1.72 mt.

Source:- SWID, West Bengal

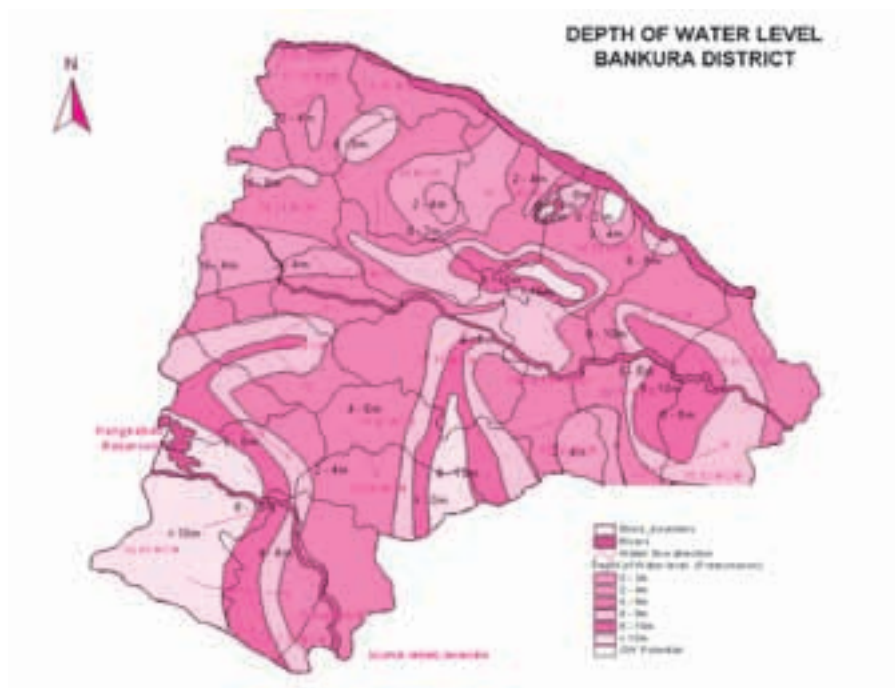
(iv) Annual fluctuation of water level :

Annual rate of water-level fluctuation is maximum in Chhatna, Ranibandh, Raipur, Bishnupur, Joypur, Indus and Kotulpur (4 mts. to 6 mts.). There are some patches in Bankura I, Bankura-II, Barjora, Gangajalghati and Khatra, where the fluctuation is between 4 mts. to 6 mts. In rest of the district the annual water-level fluctuation is 2 mts. to 4 mts. In central Taldangra water-level fluctuation is negligible.

(v) Change of water level :

Here an attempt has been made to present comparison and change of water level from 1998 to 2002.

In Bankura-I block, the water-level declines during pre-monsoon for 1 mt. to 2 mts. and, to some extents, maintains the post-monsoon level. The average water-level during pre-monsoon is 6.20 mts. and post-monsoon is 4.50 mts.. In Bankura-II, the water-level also declined during pre-monsoon for 1.5 mts. to 2.5 mts. and rises to some extent during post-monsoon period. The average water-level during pre-monsoon is 6 mts. and post-monsoon 4.65 mts.



Map 2.5.3 Depth of water level in Bankura district (Source:- NRDMS, Bankura)

At Chhatna block, the water-level decreases for 2 mts. to 3 mts. during peak summer and rises to some extent during post-monsoon period from 1 mt. to 1.5 mts.. The average water-level is 7.26 mts. during peak summer and 5.15 mts. during post-monsoon.

At Saltora block, the condition remains the same as above. Water-level declines upto 2.5 mts. to 3 mts. during peak summer and rises upto 1 mt. during post-monsoon. The average water-level is 6.65 mts. in peak summer and 4.80 mts. during post-monsoon.

At Mejia and Gangajalghati, Indpur, Khatra, Ranibandh, it is seen that water level decreases upto 2 mts. in peak summer and rises upto 1 mt. during rainy season. The reason is due to less infiltration by virtue of being hard rock disposition. Average pre-monsoon water level is 8.20 mts., post-monsoon water-level is 5.50 mts..

At Barjora block, the water-level condition is somewhat good. The average water level from the last five years is 5.95 mts. during summer and during post-monsoon the water level is 2.15 mts.. The infiltration rate is good nearly from 10 to 15 percent. Pre-monsoon average 7.40 mts., post-monsoon being 4.25 mts.

In Sonamukhi block, the water-level during pre-monsoon is 1.82 mts. (average) and 1.48 mts. during

post-monsoon period. Water-level condition has not changed much. Similarly the water-level condition of Bishnupur, Onda, Simlapal, Taldangra and a part of Raipur is comparatively good. The water-level decreases only from 0.5 mt. to 1 mt. during peak summer and rises 1 mt. during post-monsoon period. During the peak summer the water-level average of Patrasayar block is 3.99 mts. and during post-monsoon 2.80 mts. The water-level decreased by 1 mt. to 1.5 mts. and rose by 0.50 mt. during rainy season during the last 5 years. Water-level average in pre-monsoon period is 3.10 mts. and in post-monsoon period is 2.45 mts.

Irrigation :

(i) Major irrigation :

There is a good surface irrigation network under the commands of Kangsabati and Damodar irrigation projects. The area under assured artificial irrigation increased considerably with the implementation of these two projects. As the rainfall is uncertain and the farmers have to depend largely on the mercy of nature, attempts were made to increase the area under assured irrigation through major & minor irrigation projects.

There is a barrage across the Damodar from Durgapur to Pratappur, which is about 700 mts. long. From here originates the right bank main canal (RBMC), which runs

for a total distance of 88 kms. and has a head discharge of 2271 cusecs. It passes through Barjora, Sonamukhi, Patrasayer and Indas police stations. The total area in the district commanded by DVC is about 431 sq. km., though the actual area irrigated is much less.

One of the major irrigation systems in this district includes the network of Kangsabati Project area

whereas the Damodar Valley Corporation (DVC) Project has command area in some of the Blocks adjacent to the district of Burdwan. However, the canal systems under these two project areas have lost their efficiency with the passage of time and as a result the actual area covered by the canal system is much less than that of the project.

Kangsabati Project

Kangsabati Project is located in the western part of this state of West Bengal. This area is relatively arid compared to other areas of the state. Major areas of the command of the project is undulated and badly cut with rivulets. Top-soil also appear to be eroded to varying degrees in this areas.

History :

The necessity of exploring the possibility of major irrigation scheme to cover major portion of the district of Bankura and entire north of Midnapore, which constitute a vast area of scarcity and famine, was felt for a long time. Investigations to cover this area with major irrigation project were started in pre-independence period. However, after independence the recommendation for a suitable site for Kangsabati dam was taken up in right earnest and suitable site was found for it. The project was then framed to irrigate an area 3,40,750 Hec. during Kharif and 60,629 Hec. during Rabi. Irrigation started from 1966 (Kharif) in the areas and after that the dam was completed over Kumari in the year 1973-74. Command area of the project includes thirteen blocks of Bankura, twenty blocks of Midnapur and two blocks of Hoogly district in the state of West Bengal.

Table 2.5.4 Block-wise command area under Kangsabati Project

Name of the Blocks	Geographical area (Hec.)	Designed irrigable area (Hec.)
Bankura	18130	3685
Bishnupur	37940	9976
Kotulpur	25050	20039
Joypur	26130	16724
Onda	50020	23577
Indpur	30020	5485
Khatra	23240	10108
Hirbandh	19680	
Raipur	29780	30710
Sarenga	29040	
Simlapal	30920	14086
Taldangra	34970	16734
Ranibandh	42840	2338
Total	3,97,760	1,53,462

Source: Kangsabati Command Area Development Authority

Objectives:

Kangsabati Project was constructed with two major objectives: (i) irrigation & (ii) moderation of flood. Provision was also kept for supplying drinking water for the human and cattle consumption, as the area is very much susceptible to domestic water crisis during pre-monsoon period. In the lower areas the Kangsabati river has innumerable flood protective embankment covering a total flood area of 1600 sq. km. The designed peak flood discharge at the dam site is 10,600 cusecs. During monsoon period, 24,670 Hec. of reservoir space had been kept for moderating the flood including peak flood to minimise damage in the flood plain of the river. This space is utilised for post-monsoon cultivation.

Impact:

Before construction of the dam of the Kangsabati Project, the command area was predominately agrarian with a few cottage industries. Education, electricity and communicating facilities were very much limited. Rice was the main food for its people and straw was the main fodder crop for the cattle required for the agriculture operation. After construction of the project, paddy continued to be grown as the major crop in command area during Kharif season and in due course low yield variety has been replaced by modern high-yielding varieties in the most project period, Kharif vegetable, such as pumpkin, bitter gourd etc. are also being grown in large scale in the fallow tracts of the command. Sign of brisk economic activities are now apparent throughout the command area.

Designed irrigable command of Kangsabati Project in different blocks under Bankura district is given in Table 2.5.4.



Map 2.5.4 Irrigation canal network in Bankura district

(ii) Minor irrigation :**Table 2.5.5 Source-wise CCA/AAI under minor irrigation schemes in different Blocks of Bankura (in Hec.)**

Block	Dugwell		Shallow tube-well		Deep tube-well		Surface flow		Surface lift	
	CCA	AAI	CCA	AAI	CCA	AAI	CCA	AAI	CCA	AAI
Bankura-I	264	220	10	9	0	0	3673	2577	106	63
Bankura-II	268	264	927	928	0	0	2666	1970	982	903
Barjora	140	126	2323	2633	130	132	7472	5492	1495	1540
Chhatna	230	178	1	2	0	0	11842	7007	442	355
Gangajalghati	178	181	4	5	0	0	5981	5706	237	235
Mejhia	163	111	157	178	0	0	3425	2757	284	134
Onda	86	77	5124	5973	140	191	4247	2917	562	529
Saltora	105	115	0	0	0	0	5948	5176	207	186
Indpur	90	48	0	0	0	0	6674	3214	3454	515
Khatra	57	42	0	0	0	0	2612	2004	78	61
Hirbandh	154	59	0	0	0	0	3368	2066	479	195
Raipur	275	141	2513	1315	0	0	6581	851	1432	940
Sarenga	24	19	1277	1394	0	0	244	284	210	116
Ranibandh	397	303	0	0	0	0	5231	6373	185	243
Simlapal	61	33	1551	1386	0	0	1376	1014	487	501
Taldangra	61	35	1728	2108	100	114	3956	2294	625	601
Bishnupur	254	211	4193	5925	890	569	1800	1066	1142	1043
Indas	0	0	5617	2296	260	261	2464	1434	66	93
Joypur	292	450	2961	4758	330	400	1540	2207	521	657
Kotulpur	63	56	6263	8240	990	980	1568	533	1210	1177
Patrasayer	22	23	3830	5430	730	353	3446	1679	517	523
Sonamukhi	12	11	4953	7713	770	496	1316	1166	138	148
Total	3196	2703	43432	50293	4340	3496	87430	59787	14859	10758

Source: Third State Minor Irrigation Census, 2000-2001

(Irrigation scheme having CCA not more than 2000 Hec. individually is classified as minor irrigation scheme.)

Barring the land irrigated by the major irrigation projects like Kangsabati and DVC Project, about 56494 Hec. of land is being irrigated through the sources of minor irrigation. Interestingly from the data available from the Third Minor Irrigation Census Report, it is

observed that as far as minor irrigation is concerned, though the actual area irrigated (AAI) is about 56494 Hec., the culturable command area (CCA) is 50996 Hec. in the district. Actually the ground-water has been over-exploited and any further effort of harnessing ground water would be detrimental for the existence of the people of this district.

We can have a glance at the following table, which shows the magnitude of harnessing ground-water as well as using surface-water through the minor irrigation schemes in the district.

The above study points out that the scope of irrigation can be improved by developing surface irrigation, which is again justified by the fact that according to

the Third MI census, the CCA for surface water is 102289 Hec. against which the AAI is 70546 Hec. There are and there may be a number of ways of increasing the scope of surface-water management, but to have a holistic approach towards the management of water and, at the same time, of soil and other geo-physical elements, our approach in recent years has been of development taking the micro-watershed as the unit.

Table 2.5.6 Area irrigated from surface-water and ground-water through minor irrigation schemes in Bankura (in Hectares)

CCA/ AAI	Surface flow	Surface lift	Surface water	Ground water	Total
CCA	87431	14858	102289	50996	153255
AAI	59788	10758	70546	56494	127040

Source: Third State Minor Irrigation Census, 2000-2001

2.5.2 Livelihood strategy :

There is a specific geographical concentration of backwardness and poverty in drought-prone areas such as western and southern Bankura. Continuous degradation of natural resources, severe erosion, depletion of ground-water reserves, low productivity, low wage rate etc. are some of the endemic problem in these areas. Any livelihood strategy meant for this region should encompass the programme of arresting the process of degradation of natural resources, restoring ecological balance and, at the same time directly address poverty. One needs to understand poverty not only as a scarcity of cash or lack of purchasing power, but also as a lack of access to natural resources and its management because it is the biomass-based subsistence economy within which majority of people live. District of Bankura, which has plenty of rainfall, suffers drought intermittently. Ironically per capita availability of land in this district, each square-inch of which has economic use, is the highest in the state. It has an enviable forest reserve of 21.5 percent of its geographical area, strategically planned participatory management of land, water and forest resources, which can ensure sustainable livelihood of its people.

While developing livelihood strategy for the poverty stricken population of Bankura, the following strategies have to be put to the core:

1. Water is the central issue of livelihood

development strategy. In-situ conservation of soil and water, checking the surface run-off, harvesting of rain-water on the surface, economising the use of ground-water, rejuvenation of auto-flows, livelihood planning through participatory approach at micro-watershed level are the various aspects which need active consideration.

2. Livelihood plans have to be natural resources-based, target-specific, area-specific, gender-sensitive and, above all, participatory.
3. Livelihood plans have to be developed in units like micro-watersheds. Only then it will ensure best possible utilisation of natural resources. Micro-planning will make selection of livelihood options for individual families possible and render direct attack on poverty meaningfully. Census data on occupation structure give a general picture prevailing at different politico-administrative levels and help in designing a general policy. Data collected through participatory approach in the process of micro-planning help in further subdividing the marginal population into different poverty groups on the basis of asset endowment and livelihood-routes and separate and specific strategies may be framed for each such group.
4. A large segment of the population of Bankura is forest-dependent. This is particularly true of the dwellers of fringe areas of forests. They depend on forest for fuel, fodder and food on the one hand

and economic activities resulting in cash earning on the other. Greening of huge quantum of degraded forestland with appropriate species, utilisation of degraded forestlands by self-help groups formed in fringe villages, disposal of responsibilities by different Departments and agencies in harmonious manner are the keys to it. Working of joint forest management (JFM), degree and extent of involvement of forest protection committees (FPC) in decision-making, rigid mindset of forest officials, existing rules & regulations are to be critically evaluated. Arriving at a true and optimum forest-based livelihood may entail policy changes also.

We may now discuss these issues one by one in more detail.

2.5.2.1 Water management :

As the rivers are mostly rainfed and remain practically dry over the major part of the area, there is no assured supply of water from this source for cultivation. On the other hand, the district receives an annual rainfall ranging between 1100-1400 mm. Though this quantum of rainfall is generally sufficient, crops are liable to fast if the distribution is unconducive. The greatest damage is caused if rainfall is insufficient in the months of September and October, when a good supply of water is needed for grain-filling.

Table 2.5.7 Average month-wise rainfall (in mm.) in Bankura during 1994-2005

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1994	28.4	62.8	14.8	63.9	80.7	343.8	394.3	287.6	165.5	65.2	0.2	0
1995	27.2	24.6	5.9	3.4	95.7	175.1	268.6	300	373.1	80.8	129	8.1
1996	22.2	23.6	6.3	17.8	52	326.2	237.2	432.7	135.6	74.8	0	0
1997	15.5	28.9	29.1	87.1	77.1	194.7	348.9	401.1	189.1	66.5	29.1	32
1998	82	50.1	73.4	57.5	45.5	135.1	240.6	149.4	204.8	184.9	28.1	0
1999	0	1.9	0	0	165.6	193.7	289.5	182.4	242.1	90.2	3.8	0.1
2000	2.5	41.7	6.3	72.7	187.1	164.1	319.1	161.9	311.5	42.9	0	0
2001	0	0	57.5	60.1	130.1	323.1	282.4	250.2	122	113.4	1.6	0
2002	27.7	2.4	20.8	68.4	102.7	351	249	291.7	273.4	87.3	13.9	0.1
2003	0.3	21.2	64.4	34.6	59.9	255.1	244.5	179.1	137.4	263.8	12.3	9.1
2004	3.2	0.1	17.3	39.5	89.2	174.4	205	332.2	189.4	117.6	0	1
2005	18.9	38.4	48	29	44.2	152.4	295.9	189.7	157.1	224.5	0	19.4
Average of the above years	19.0	24.6	28.7	44.5	94.2	232.4	281.3	263.2	208.4	117.7	18.2	5.8
Optimum need	10.9	25.8	28.6	41.4	90	241.4	199.8	296.3	235.4	92.3	18.9	15.1

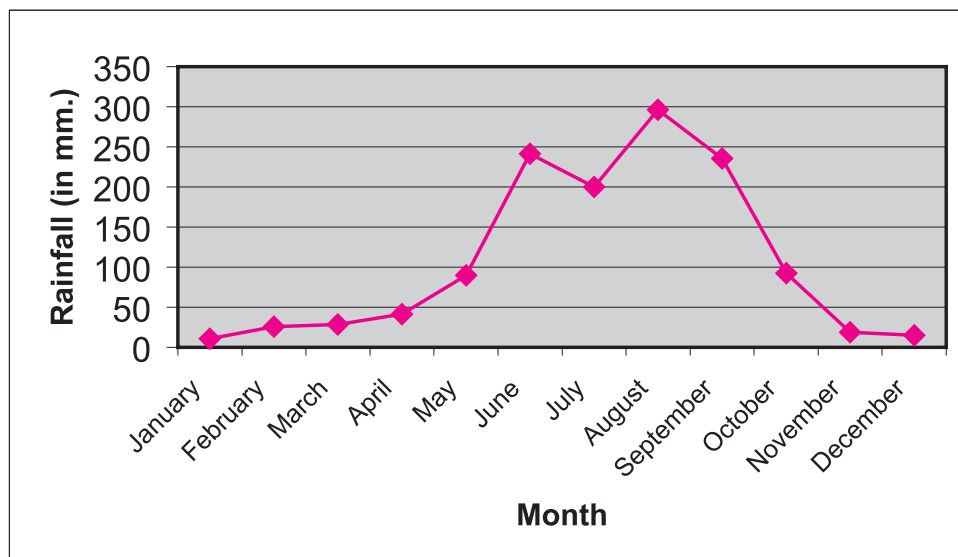
Source:- Office of the Principal Agricultural Officer, Bankura

The graph 2.5.5 shows the curve of optimum distribution needed for cultivation of paddy. The distribution of rainfall is most favourable to the Aman or winter crop, which is the staple crop, is when premonitory showers fall in May or early in June. The rain in the later half of June and in July should be followed by an interval of fine weather that permits weeding operations. The September rains have to be heavy, shading off into fine weather with showers in October. On the sufficiency of the rainfall in September, the outturn of Aman depends most.

But, in practicality, the district suffers from the vagaries of rainfall and hardly a year passes without distress prevailing in one part of the district or other. Even, while there is bumper harvest in the eastern blocks of the district, distress in western region is common. Rainfall being uneven, the resulting drought condition causes much suffering to the poorer sections of the people in addition to the fall in foodgrain production. In this context, artificial irrigation has always been important in the district. Except in the eastern parts, the natural configuration of the terrain is undulating.

So it is easy and economical to arrange conservation of water by making embankments across the drainage lines. These storage pools, set up at a level higher than the fields to be irrigated are called 'bundhs'. These bundhs serve two purposes. First, they prevent the

monsoon rain draining off too quickly and second, they supply water from the reservoir to adjoining fields. In the western part of the district such bundhs are a common feature while towards the east the ordinary tanks with four-sided embankments are seen.



Graph 2.5.5 Month-wise optimum rainfall required for paddy cultivation

Source:- Office of the Principal Agricultural Officer, Bankura

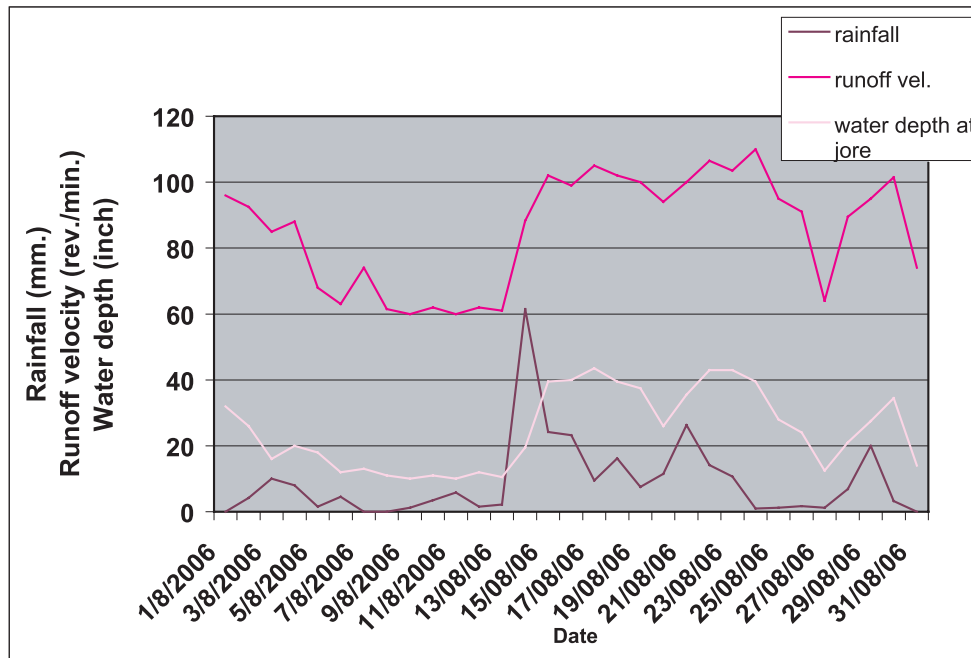
Artesian water resources rising spontaneously to the surface are to be found along the course of rivers. Rejuvenation of such sources may produce ready supply of water. The sub-soil water reservoirs here are obviously under some kind of subterranean pressure and this geo-hydrological phenomenon has been taken advantage of by the local agriculturists. In fact, they have had for long the knowledge of the existence of this favourable geological feature. As is the case with artesian water everywhere, the water-table at certain places almost touches the surface. These auto-flows or 'jharnas' go on providing water so long as the water resources in the underground pockets last. Once such jharnas were traditional and perennial sources of water for drinking and irrigation purposes, but nowadays most of such sources have dried up and exist nowhere except in the memories of some old villagers. This is due to lack of catchment's treatment and deforestation.

2.5.2.2 Micro-watershed approach :

Considering the geo-physical characteristics of this district in general, and its soil-morphology and soil

structure, intensity of rainfall, undulating character of land, cropping pattern, extent of degradation of forest areas etc. in particular, development of micro-watershed becomes a key component of development strategy concerning Bankura. A watershed can be defined as the drainage basin or catchment area of a particular stream or river. Simply stated, it refers to the area wherefrom the water to a particular drainage system comes. A micro-watershed consists of an area of 500-1000 Hectare of land. In Bankura, there are 1087 micro-watersheds. Watershed must be taken up as a unit for planning in a terrain, which has undulations, and one geographical unit is dynamically connected to the other through a common drainage point.

Watershed development refers to the conservation, regeneration, and judicious use of human and natural resources within a particular watershed. Watershed development attempts to bring about the best possible balance in the environment between natural resources on one side and man and grazing animals on the other. There is a need for convergence of Departmental schemes such as minor-irrigation, social forestry, soil



Graph 2.5.6 Correlation between rainfall, run-off velocity and water-depth at ‘jore’ (rivulet)

Source: Office of the Block Developmental Officer, Bankura-I

conservation, agriculture, horticulture, fishery, etc, as far as practicable, through the micro-plans prepared at watershed level. Thus watershed development may play a key role.

It is needless to mention that watershed development involves continuous interaction and exchange between various sectors and components.

There is a pervading influence of the environment on the human community living within a micro-watershed region, as they depend on it for food, fodder, fuel and water. It is necessary for people to understand the relationship between their poverty and the degraded environment in which they live. In the watershed development programme, they find a good economic alternative and they willingly let go their short-run claims on environment in favour of possible long-run benefits. Environment regeneration is, therefore, possible only when the local community feels the need for it and when they enjoy full control over resource mobilisation, management and conservation.

The watershed development programme, to be successful, must ensure the participation of the concerned people and must be related to the environment in which they live and on which they

depend for fulfilment of their need.

A watershed provides naturally-occurring hydrological unit and it is also the area on which the inhabitants depend for survival. It thus becomes a common issue, drawing the people together, giving rise to a common interest and fostering a common purpose.

The people must voluntarily come together, accept full responsibility for regeneration of their environment from the stage of concept to planning, implementation, supervision and maintenance of assets created and for building consensus as to rules, regulation, organisational mechanism, mitigating conflicts, sharing of benefits etc. The real challenge is, however, to bring in cohesion in the community, specially in areas which are sparsely populated.

To sustain the impact of development and institutional arrangements, an effort has been made in this district providing equal emphasis on the micro-plans and the process leading to the development of micro-plans. Development of a micro-plan is an empowering tool for the poor and vulnerable people involved in the programme. Three basic development philosophies were kept in mind while deciding on micro-watershed based micro-planning:

Table 2.5.8 Report on watershed development programme taken up under Rashtriya Sam Vikas Yojana (upto 31/7/06) (all amounts are in Lakh Rupees)

Sector	Approved outlay	Schemes prepared		Nature of schemes	Schemes approved		Schemes taken up for execution	
		Number	Amount		Number	Amount	Number	Amount
Minor Irrigation	1439.51	238	205.99	Water harvesting structure (including 46 number of 5 percent model)	238	205.99	238	205.99
		2	0.71	Construction of guard wall	2	0.71	2	0.71
		7	2.86	Construction of irrigation well	7	2.86	7	2.86
		5	4.32	Irrigation Channel	5	4.32	5	4.32
		32	131.84	Construction of check dam	32	131.84	32	131.84
Total	1439.51	284	345.72		284	345.72	284	345.72
Social forestry	55.20	177	51.01	Plantation of mango orchard at 107 Hectares of land	177	51.01	177	51.01
Horticulture	24.70	54	22.00	Horticulture at 78 Hectares of land including vegetable seedling raising	54	22.00	54	22.00
Soil conservation	117.60	46	28.39	Land levelling at 234 Hectares of land & contour field binding (CFB) at 107 Hectares of land	46	28.39	46	28.39
		15	7.10	Water harvesting structure	15	7.10	15	7.10
		2	1.39	Construction of check dam	2	1.39	2	1.39
		3	1.71	Gully plugging	3	1.71	3	1.71
		1	0.01	Construction of village drain	1	0.01	1	0.01
Total	117.60	67	38.60		67	38.60	67	38.60
Fishery	1.04	1	1.04	Renovation of tank of 0.3 Hectare area	1	1.04	1	1.04
Agriculture	5.58	347 unit		Preparation of vermi-compost pits @ Rs.1000/- per unit	347 units	1.25	347 units	1.25
Grand total	1643.63	583	458.37		583	459.62	583	459.62

Source: Office of the District Magistrate, Bankura

1. Create peoples' organisation and strengthen it and/or strengthen the existing grass-root organisations;
2. Create development models and methodologies, which can be replicated and scaled up;
3. Create an asset-base through savings from the execution of the programme for maintenance.
4. Providing technical inputs through participation of line departments

Under Rashtriya Sam Vikas Yojana (RSVY) micro-planning for forty micro-watersheds have been completed and the interventions have been started.

A case study of watershed (SD 16P) in Saltora

The process :

Meetings were initially conducted in each hamlet for awareness generation about the merits of watershed approach. They were also informed on implementation process of the scheme where community would be involved from planning to execution. Sabhapati and BDO influenced the process of rapport building and other survey activities.

While generating the base map, community wisdom was of great help. They identified different types of land like Tanr, Baid, Bahal, Kanali etc. (high land, medium high land, medium low land and valley land respectively), their usage and scope of improvement. Catchment and command area with drainage system were identified, situation analysis of existing tanks/ponds was done, different soil and water conservation measures were proposed, possibilities on agriculture farming, marketing channels and procedure etc. was also discussed in the planning process. Local youths were trained to collect socio-economic data of the people of the watershed. The first map was prepared in Rakta mouza in March, 2005, where members including women from each family participated.



2.5.1 Women at work in SD-16P watershed project under Saltora Block

Schemes of different government Departments have been brought under a common umbrella. The mature institutional base in the watershed and the corpus fund available with them provided a sound platform for convergence of schemes of different developmental activities. The implementation has been started. Regular interface of extension functionaries of line Departments with watershed committee and user groups / self-help groups during implementation phase will ensure convergence and permanent linkages. Presently Fishery Department has developed two fishermen groups for fishing in the two excavated ponds. One group is already cultivating fish from a tank. The approach of Agriculture Department has been widely accepted by the community for different interventions like System for Rice Intensification (SRI) paddy cultivation, maize cultivation, and vermin-compost etc. Forest Department is also planning to do construction of loose boulder rock checkdam and drainage in Amjore mouza of Saltora. In fact, the upper catchment of most of the watersheds in Bankura belongs to the Forest Department and as such the success of intervention in valleys depends heavily on the integration of complementary interventions in forest areas on ridge. It has been observed that there is a lot of soil erosion in forest areas, which needs to be taken care of.

Role of women in the watershed :

Women were associated from the very beginning in the watershed starting from participation of micro-plan etc. They emphasised the need for night schools and that was taken up as an entry-point activity in the area. The other issues were construction of platform for paddy drying, small rooms for change of dress of women on the banks of the ponds where they take bath, low-cost sanitation etc. They were involved in nursery raising, pit-digging, preparation of pit and plantation. While constructing 'Happa' or 30-40 model, women extended their manual labour and earned wage simultaneously with the men.

Watershed approach has, in effect, empowered community by involving them in planning and implementation. The very fact that community is participating in the whole process has brought in

understanding, cohesion and motivation among people. The community has also got the benefit of employment-generation during asset creation. In general, there are 16 percent contributions of

‘Swechha Shram’ (voluntary labour). This has enhanced the ownership of the assets by community and has also made it possible to cover larger areas under the project. The cost of assets is generally lower and of superior quality.

In a watershed area, total availability of water is caused through rainfall, dew, hail etc. and gets disposed off through surface run-off, sub-surface seepage and evapo-transpiration. On the basis of data received, the relationship observed among different components is as follows:-

Total precipitation = surface run-off (1/3rd. of total precipitation) + sub-surface seepage (1/3rd. of total precipitation) + evapo-transpiration ((1/3rd. of total precipitation).

In Bankura (specially the western and southern part), due to undulation of landscape and soil condition, most of the rainwater gets drained out to lower ridges and finally to sea through rivers along with the eroded top-soil and nutrients therein.

In general, soil in this district in the red laterite zone is porous and water leaches out fast. However, since



2.5.2 Checkdam constructed on a rivulet (‘jore’) in

fast and the ponds recharge each other maintaining a balance. People in the villages in this district also plant bamboo on the bank of the ponds since it is a good soil binder and also helps in reducing the evaporation

acquirer is shallow, water seeping into ground recharges ponds located down the slope and if saturation is reached, it comes out in the form of a rivulet. If ponds are excavated in clusters, water does not leach out

loss. This helps in enhancing overall retention of water in the ponds. This methodology has been applied to revive the old rivulets in the district which have now dried up.

The basic approach

has been to do social forestry / horticulture on the upland alongwith contour, reexcavation of ponds in series down the slope and putting a checkdam deep down on a rivulet (or ‘jore’). This principle is being applied to river Gandheswari in this district by construction of small checkdams in series in the upper catchment. Water trapped in the checkdams will actually seep into ground and enhance the sub-surface flow thereby making the river flow perennial. Smaller checkdams are more suited since the design is simple, submergence is less and gravity irrigation is possible. Due to high cost of diesel, pumping up water from a big reservoir to upland is now-a-days not found cost-effective. Generally, a semi-circular earthen dam at a location with natural depression is also very helpful in harvesting rainwater and recharge sub-surface flow. Generally hamlets are located on uplands. Water flowing out of the habitation area follows the downward slope through gulleys. This can be checked and water may be stored in the earthen dams constructed on the slopes. People are generally ready to donate land for this purpose since there is not much of cultivation on the slopes, soil is less fertile and they get water as bonus for the agricultural land down below.

Cost of assets created with the participation of, say, watershed development committee is always found to be less since people use local material and go by the actual market rates instead of following the PWD schedule.



2.5.3 Construction of an earthen checkdam going on in Ranibandh Block

Water harvesting structures

(a) 5 percent model :

A case study with cost-benefit analysis

Mr. Sudhir Pramanik, a farmer of Saudagarpara in Udaypur Mouza has 22 decimal of Baid land. Though water was available nearby, but due to lack of facilities available for irrigation, the production from his land was meagre. Hence, he could not ensure food security for the whole year. Now after adopting 5 percent technique, locally called as “Happa”(A ditch is constructed with 5 percent land of the total land holding in rectangular shape with stairs up to a depth of 10 ft), Mr. Pramanik could arrest the rainwater that helped him to produce Maize, Arhar, Bitter gourd, Bottle gourd etc.



2.5.4 Construction of 5 percent model going on

Total expenses towards construction of the model structure, seeds, fertilisers, wage etc. came around Rs. 6000/-. After marketing the produce from the land Mr. Pramanik could get Rs. 10000/-. Within one year, he not only recovered the total cost of construction of the model and cost of inputs for crops but also had a net profit of Rs. 4000. Besides, he has initiated fish rearing in his ‘Happa’ and made Gamar plantation on the bund. The trees would give a substantial return in due course. Now Mr. Pramanik is very happy and is confident to maintain his family. His family is now ensured food security for the year from the project. Before the project he used to get Rs. 1500/- to 2000/- from paddy cultivation. Now onwards he and his family have decided to go for such type of crop diversification.

After seeing the success, the nearby farmers are replicating the model on their own land. On an average 150 person days are created while constructing the ‘Happa’. Local people of the watershed provided all the manual labour.

(b) 30-40 model :

Last year from October onwards this unique structure of soil conservation measure was started in SD16P



2.5.5 A 30-40 Model

micro-watershed in Saltora block. A total of 23 Hectares of upland was covered under this model. The core idea was to make number of plots from the untreated fallow land and creating water collection pits in each plot. Water collected from a large number of such plots seeps into the acquifer and recharge the moisture regime of watershed area. Till today 2000 person days are generated in this watershed from such structures. Each plot is divided to 30 to 35 feet X 40 feet (30-35 feet along the slope X 40 feet across the slope). Hence the

area of each plot is 1200 to 1400 square feet. The volume of the pit is kept at 100 to 110 cubic feet. The earth cutting from the pit is used to construct the micro-bund on the plots. The treated land is used for orchard plantation and social forestry suitable for the area.

In this district such smaller water harvesting structures have been found very useful and are being replicated under the employment guarantee scheme also.

2.5.2.3 Forest and forest-based livelihood :

Another issue related to poverty and livelihood of Bankura is dependence on forest from time immemorial. If the settlement map of Bankura is superimposed over land use map, one will find that there are numerous small hamlets in the fringe areas of forest lands. The inhabitants of these villages are mostly tribals or people belonging to lower castes. Forests and trees have customarily played a critical role in the livelihood of

these people. They depend fully or partly on forest resources to meet their subsistence needs. They have an organic link with forest. For them, forests are also a source of construction material, fuel, medicines, animal feed and as such they are helplessly dependent on forests.

Most of the dwellers of these forest fringe villages are landless. In case they possess any land, it is invariably marginal in quantum and unirrigated, unbounded uplands in nature. So they cannot depend on agriculture for subsistence, rather a mainstay of their subsistence is collection of minor forest produces. It has been estimated that 20-50 percent of the household incomes per annum comes from non-timber forest produce (NTFP).

So excessive deforestation and existence of huge quantum of degraded forest lands are a serious threat not only to soil and water base essential for food production, but it also has a direct bearing upon the fringe population. With erosion of customary rights and access to forest resources, the household food security of this region seems to have been endangered.

Table 2.5.9 Year-wise collection of minor forest produce by LAMPS in Bankura (in Quintals)

Year	2004	2005	2006
Kendu leaves (in Quintals)	4437.00	3356.69	4746.00
Sal seeds (in MTs.)	30	202.76	Nil

Source: Regional Manager, TDCC, Bankura

It will be worthwhile to discuss here in brief some NTFP based economic activities prevalent at Bankura and problems related thereto. Collection, processing and sale of Sal leaves, Sal seeds, Kendu leaves, are among occupations dependent on NTFP. For procuring such NTFP, Tribal Development Cooperative Corporation (TDCC) deposits royalty in favour of Forest Department. Large-sized multi-purpose cooperative societies (LAMPS) run by TDCC are supposed to buy the NTFPs collected by tribal people. In reality, a very insignificant portion of NTFPs is procured by the LAMPS and payments are made irregularly leaving enough room for private traders to intrude and buy NTFPs at distress prices.

Collection of Sal leaf is generally done by the women folk. They weave Sal leaves to form 'siapata' which is

round shaped. Two Siapatas are mechanically stitched for making plates. Each stage, from Sal leaf to siapata to plate, involves value-addition and the maximum value-addition takes place in the process of making sal plates. Unfortunately the traders and commercial entrepreneurs dominate in this last stage of value addition. A shift in this arena is being attempted through empowerment of the self-help groups.



2.5.6 Sal plate preparation by tribal women

Economic activities concerning kendu leave starts with pruning operation. If pruning is not done in time, good quality leaves will not be available. This operation is supposed to be done by TDCC engaging the local tribal labourers. They often fail to do this, which results in late sprouting and the local collectors miss the Kolkata markets, which remains dominated by supply of kendu leaves for Madhya Pradesh or Orissa.

Third component, though strictly speaking is not a forest produce, that plays very important role is Babui grass. Babui is cultivated in the uplands where nothing else can grow. Both male and female members of tribal families of south Bankura are efficient in making Babui rope which has steady demand in the markets within the state, as well as in other states like Uttar Pradesh and Rajasthan. But in absence of local market facilities the middlemen dominates which leads to deprivation of the growers of competitive price. Secondly, though this species has utility in conservation of soil and water, Forest Department as a policy discourages its cultivation and when it is cultivated in fallow uplands within forest area, the same is uprooted or set ablazed.

Finally, there are infrastructure gaps so far as NTFP-based livelihood options are concerned. In the absence of storage facilities, the growers and collectors are very often compelled to resort to distress-sale. As there is no market facility that deserves the name and as the TDCC does not procure such produces in sufficient quantity, dependence on traders and middlemen persists. Non-availability of machineries is another drawback that deprives the collectors of engagement in value-addition and higher income generation processes.

Other important elements of forest-dependency are animal feed and fuel. At Bankura, the area of degraded forests is 57,000 Hectare. This degradation has, in effect, shifted the forest far from settlements. The female members of the family normally do the work of collection of fuel and a two to eight kilometre journey for collection of fuel-wood is very much common here. Eucalyptus, the preferred species of Forest Department for new plantation, is devoid of the capacity to fulfil this daily domestic need. It does not provide animal feed as well. However, this species has a good survival rate and on harvesting after 10-12 years, it earns cash, a share of which is distributed among the members of forest protection committee (FPC). Logic of cash-earning and good survival rate has somehow been effective in popularising this species in turn making the task of forestation easier. But the species that used to provide the fringe-dwellers food, fuel, fodder, medicine etc. throughout the year have been lost.

2.5.3 Agriculture

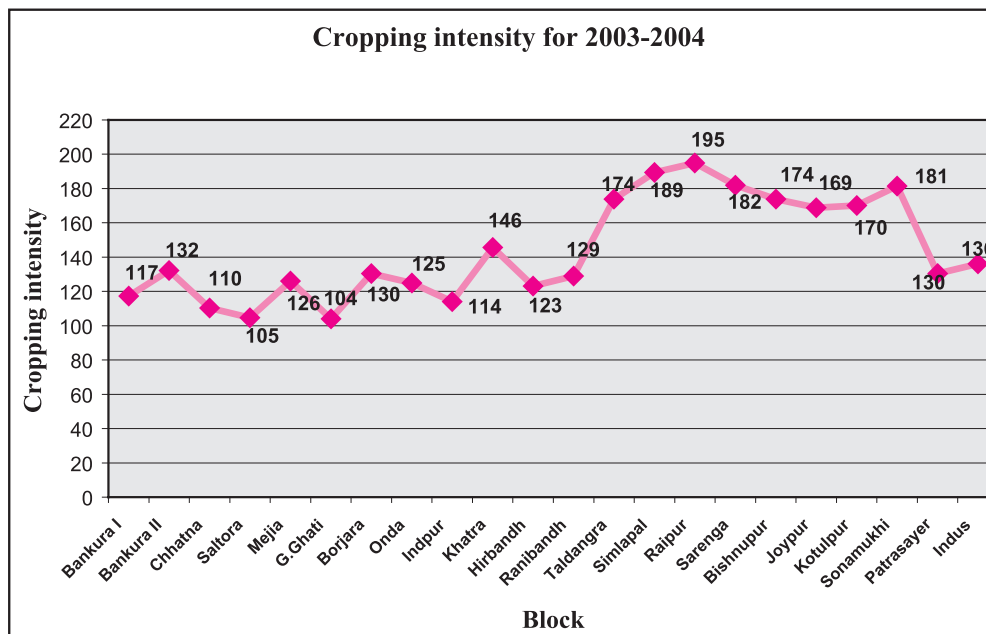
Bankura is located between 22°.38¢ to 23°.38¢ latitude and 86°.36¢ to 87°.47¢ longitudes. The tropic of cancer passes almost through the middle of the District. Two agro-climatic zones mark the district namely undulating Red Lateritic and Vindhayan Alluvial Zone. Climatically

the Red Lateritic Zone is tropical dry sub-humid having rainfall ranging from 1100 mm. to 1400 mm. and the temperature varies from a maximum of 45° C to a minimum of 10° C. Soil in this region is well-drained and susceptible to soil erosion due to rapid external drainage or run off. Agriculture in this region is mostly rain-dependent. Prevalence of moisture stress on standing crop in late monsoon period is very common. On the contrary soil in the Vindhayan Alluvial Zone, in general, is deep, texturally medium fine and moderately well-drained. Major part of this zone harvests more than one crop utilising canal irrigation as well as ground-water.

Table 2.5.10 Agricultural infrastructure in Bankura

State Seed Farm	1 (Bankura)
District Seed Farm	1 (Susunia)
Block Seed Farm	5
Model Farm	1 (Joyrambati)
Agri. Research Station	2 (Saltora, Joyrambati)
Vegetable Seed Farm	1 (Barjora)
Other Reserch Farm	3 (Rice-Bankura, Dryland-Susunia, Horticulture-Taldangra)
No. of Seed Farms	71
No. of Cold Storages	23

Source: Office of the Principal Agricultural Officer, Bankura



Graph 2.5.7 Block-wise variation of cropping intensity in 2003-2004

Source: Office of the Principal Agricultural Officer, Bankura

Table 2.5.11 Block-wise net sown area, gross-cropped area and cropping intensity in 2003-2004

Name of Block	Net area sown (in Hec.)	Area in which more than one crop is grown (in Hec.)	Gross cropped area (in Hec.)	Cropping intensity
Bankura-I	10844	1869	12713	117
Bankura-II	10859	3501	14360	132
Chhatna	24932	2571	27503	110
Saltora	17235	809	18044	105
Mejia	8436	2196	10632	126
Gangajalghati	22335	893	23228	104
Barjora	19806	6025	25831	130
Onda	26981	6712	33693	125
Indpur	16490	2327	18817	114
Khatra	10222	4658	14880	146
Hirbandh	11062	2561	13623	123
Ranibandh	15128	4389	19517	129
Taldangra	16168	11930	28098	174
Simlapal	11282	10075	21357	189
Raipur	11256	10682	21938	195
Sarenga	12947	10601	23548	182
Bishnupur	16123	11904	28027	174
Joypur	14039	9650	23689	169
Kotulpur	17741	12446	30187	170
Sonamukhi	17348	14119	31467	181
Patrasayer	16413	5000	21413	130
Indus	20482	7400	27882	136
Total	348129	142318	490447	141

Source:- Office of the Principal Agricultural Officer, Bankura

It is paradoxical that though Bankura lies in sub-humid zone having total annual rainfall of 1300 mm to 1400 mm., agriculture is largely dependent on the vagaries of monsoon. Drought constitutes a major hazard in the district. Intermittent gaps in precipitation and moisture stretch during the monsoon give rise to serious setback in the production of paddy during the Kharif season, which is the mainstay of agriculture in the district. In addition, the soil is mostly poor in plant nutrients, porous with poor water-holding capacity and very erosion-prone resulting in loss of top-soil thereby affecting soil fertility. The soil is acidic and the pH ranges from 4.5 to 5.5, affecting the yield of the land. The unscientific use of costly chemical fertilisers has aggravated the problem.

The ground reality being the above, efforts had always been to bring more agricultural land under the ambit

of minor irrigation so that the Kharif crop can be protected from the fluctuation of monsoon and irrigational support can be extended to pulses and oil-seed and other cash crops in the Rabi season in order that the crop intensity may be improved.

It is clear from the analysis of cropping intensity (Graph 2.5.7) that the western and part of southern Bankura is lagging behind and needs attention. The strategy being followed in this district is to go for crop diversification. Farmers are being encouraged to go for dryland farming. The watershed approach of planning has enabled us to identify some thrust areas and interventions, which have become helpful in increasing the production and productivity in agricultural sector.

Following thrust areas had been identified for development in recent times and some interventions have been made:

(i) Crop diversification :

Most of the wasteland in the watershed areas is underutilised and lying fallow with shrubs. Top-soil is



2.5.7 Mixed cropping of maize and black gram in Bankura-I Block

eroded. Villagers practice low yielding traditional crop in such patches of land, which are mainly possessed by the tribal community. The Agriculture Department has experimented to go for all-rounder variety of hybrid maize in such underused land. A few farmers were motivated to adopt the new initiative. The all-rounder was sown in 11 Hectares in one watershed area last year and the yield was 242 Quintals. Time taken was about eighty days for harvesting. This maize was mainly consumed at home and they have now assured food

security for at least three months during lean period. The villagers are very happy, as they don't have to migrate to Bardhaman because they are able to save their food for this year.

Due to persistent dry spell during maize production, the yield was almost fifty percent of the expectation. Still the villagers are happy and they have decided to go for this variety of maize in the next season provided the land fertility is conducive to maize cultivation.

The harvested produce was equally shared by the community even though a few of them are landless. They also had an exposure to the local markets for selling of the produce. The whole episode depicts the collectivisation of the community.



2.5.8 Maize production in wasteland

Table 2.5.12 Area covered by different crops during last five years (in Hectare)

Name of the crop	2000-'01	2001-'02	2002-'03	2003-'04	2004-'05	2005-'06
Aman paddy	283155	351702	298929	331205	335497	311403
Aus paddy	26177	32971	24504	23776	28815	21254
Boro paddy	19965	44490	39168	42781	46355	47625
Wheat	10100	17025	12553	12920	12497	10259
Arhar	1576	1417	1289	939	1117	1712
Maize	1136	2195	1909	1722	1804	2702
Khesari	817	997	1609	1168	906	762
Kalai	1688	1828	1232	1435	1327	1043
Lentil	488	747	1578	1391	835	1046
Gram	351	564	1170	950	638	924
Pea	257	352	338	433	354	326
Summer pigeon pea (mung)	362	618	1264	653	712	488
Mustard	14206	14155	14107	15500	16138	13314
Linseed	824	826	1064	897	726	628
Winter sesame	888	695	1167	891	539	561
Summer sesame	10780	10954	16308	17691	22964	12003
Potato	27133	33387	38103	37137	39808	42696
Summer vegetables	7683	8928	8674	9311	9514	8869
Winter vegetables	13905	13780	13784	13525	12639	13751
Kharif vegetables	13746	13683	12937	11878	12590	11107
Kharif chilli	571	563	632	646	585	560
Rabi chilli	746	984	777	891	859	807
Jute	440	582	633	524	305	374
Mesta	701	1398	782	821	567	665

Source: Office of the Principal Agricultural Officer, Bankura

This has also helped to hike the self-esteem of the people who now feel that their land resources are not less worthy than that of the fertile land belonging to the rich section of the society.

Under Rashtriya Sam Vikas Yojana (RSVY) we had taken up 275 demonstration centers (DC) on maize and 59 DCs on Arhar in 2005, the land of each DC being one Hectare. The return from maize has been Rs. 3000-4000 per bigha. This is noteworthy in light of the fact that rice had partly failed in several pockets due to long dry spell. The challenge here is to provide quality seeds to farmers. In fact, the limiting factor in diversifying to maize, Arhar, Kalai etc. is availability of quality seeds. Farmers have to depend on outside agency for hybrid seeds. A plan needs to be chalked out to make this district self-sufficient in Arhar, maize and Kalai seeds.

(ii) Integrated Pest Management :

Integrated Pest Management (IPM) is an approach that has been used for decades to manage insects and diseases in agricultural crops. In Bankura, farmers have been given intensive training on IPM in paddy cultivation in Kharif, 2005-'06 under the guidance of the Agriculture Department of Bankura. Thirteen demonstration centres had been adopted in 2005-'06, which has been increased to twenty-three in 2006-'07. The main theme of the programme is to provide long-term solutions to pest problems with the reduction of use of chemical pesticide to maximum possible extent and pushing the chemical agenda for addressing pest problem as the last option. Before introduction of IPM, the chemical option was the first and only option for control of pests for crop harvest. The IPM process also protects the environment and human-health by reducing pesticide use in the foodgrain and also in the fodder of the livestock. It also reduces the cost of the production.

Mintu Ghosh of Kochdihi Village at Sonamukhi Block, a trainee of IPM technique has been able to save Rs. 500 per bigha of his land. Previously he had to use chemical pesticide during Aman cultivation



2.5.9 Integrated pest management for eco-friendly paddy production at Gopbani village in Barjora Block

that was too expensive. Now he has learnt about the right use of pesticide management by IPM for pest control and reduced the expenses on chemicals. He was surprised to see that the yield remained the same. He is now aware of the use of defenders and pests in pest control management. He learnt about various techniques of collecting pests for analysis of pest defending ratio such as 'Jale Dhara Technique (tapping insects with net)' and 'Jalapatra Technique (water pan method)'. The training programme continued for fourteen weeks to cover the total paddy cultivation period in his village.

He is happy now to reduce the cost of cultivation and is earning more money than the previous years. In their village 300 to 500 Bighas of agriculture land are getting benefit of the IPM process. In Bankura

district about 435 families of paddy cultivators are directly involved in this process and getting benefits from this and about 8000 Bighas of cultivated lands are covered under this mission.

(iii) Improvement of soil health :

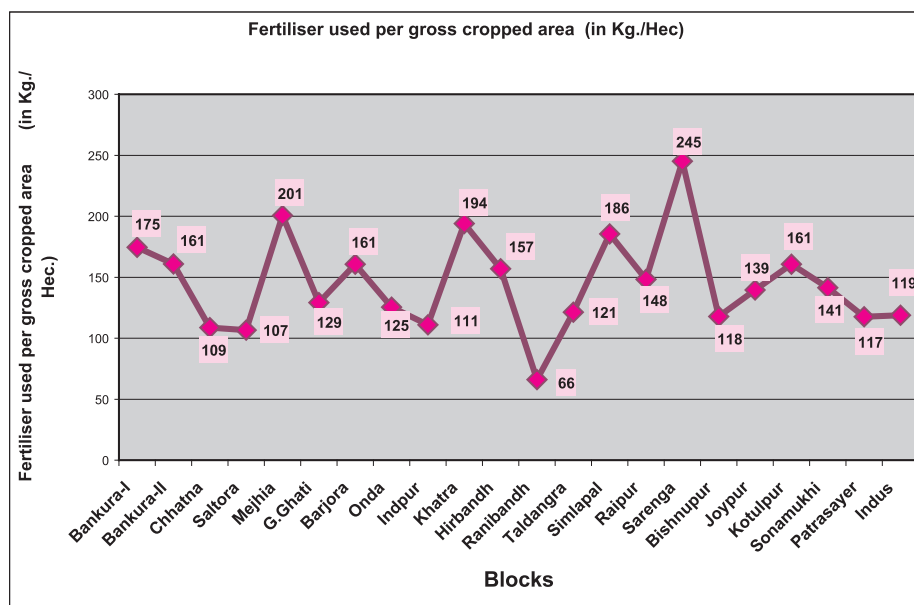
The land in Bankura is undulating and the pH of the soil ranges from 4.5-5.5 (i.e., acidic) and thereby seriously affects the yield. For this reason, a scheme has been taken up to distribute packs of soil ameliorates at the subsidised rate (in the pattern of

State Government scheme) among the farmers of watershed areas and introduce vermicompost so that soil-fertility can be sustained. After using soil ameliorates and improved agricultural practices the productivity of paddy in certain areas have gone up as high as ten quintals per bigha as against three quintals per bigha on an average.

2.5.13 Block wise consumption of chemical fertilisers during 2002-2003

Sl. No.	Name of Block	Fertiliser used (in MT)				Area of fertilizer use (in Hec.)			Fertiliser used (in Kg./Hec.)
		Nitrogen (N)	Phosphorus (P)	Potash (K)	Total fertiliser used	Net sown area	Double-cropped area	Gross cropped area	
1	Bankura-I	1030.2	624.5	497.0	2151.7	10637	1688	12325	175
2	Bankura-II	1213.6	749.1	546.2	2508.9	12115	3473	15588	161
3	Chhatna	1322.2	851.8	654.2	2828.2	24530	1465	25995	109
4	Saltora	745.2	474.7	362.2	1582.1	14106	729	14835	107
5	Mejhia	1239.4	767.2	360.3	2366.9	8691	3101	11792	201
6	Gangajalghati	1378.4	830.3	619.8	2828.5	20414	1493	21907	129
7	Barjora	1916.5	1138.7	806.0	3861.2	19004	5043	24047	161
8	Onda	2216.1	1278.3	927.2	4421.6	28550	6712	35262	125
9	Indpur	1080	680	480	2240	17841	2327	20168	111
10	Khatra	1500	900	725	3125	14000	2100	16100	194
11	Hirbandh	1120	710	520	2350	13417	1561	14978	157
12	Ranibandh	848	388	291	1527	15833	7280	23113	66
13	Taldangra	1800	1120	890	3810	22550	8850	31400	121
14	Simlapal	2957	1295	1200	5452	19310	10075	29385	186
15	Raipur	2375	1255	1170	4800	21689	10682	32371	148
16	Sarenga	2764	1340	1320	5424	10523	11601	22124	245
17	Bishnupur	1820	932	678	3430	17200	11904	29104	118
18	Joypur	1832	920	661	3413	14819	9650	24469	139
19	Kotulpur	2710	1326	1055	5091	22000	9673	31673	161
20	Sonamukhi	2520	1151	935	4606	17558	15000	32558	141
21	Patrasayer	1870	920	739	3529	18035	12000	30035	117
22	Indus	1690	812	652	3154	18580	7948	26528	119
	Total	37947.6	20463.6	16088.9	74500.1	381402	144355	525757	3191

Source:- Office of the Principal Agricultural Officer, Bankura



Graph 2.5.8 Block-wise distribution of fertilizer use

Source: Office of the Principal Agricultural Officer, Bankura

It appears from graph 2.5.8 that in some areas use of chemical fertiliser is substantial in most of the blocks.

Vermicompost : a success story

Vermicompost is a unique product in uplifting and sustenance of soil fertility.

Small units for vermicompost preparation were specially designed with the support of non-governmental organizations (NGO) having past experience on vermicomposting. The objective was that the small-scale units in large number will make individual farmers self-sufficient in their own organic material requirement and this will improve the soil fertility of land holding of small and marginal farmers and also improve the quality of the produce.

Table 2.5.14 Cost-benefit analysis of vermicompost

Cost involved		Benefit accrued (in one year)	
Cost of the structure	= 400.00	Fertiliser produced 5 quintals (in 6 cycles in a year)	
Labour charge	= 120.00	@ Rs 5/-	= Rs. 2500.00
Cost of worms	= 300.00	Sell of worms (2000 nos. approx.)	
Total cost	= 820.00	@ Rs. 0.50	= Rs. 1000.00
		Total income	= Rs. 3500.00

Source: RSVY Cell, Office of the District Magistrate, Bankura



2.5.10 Replications are going on in low-cost model of vermicompost

Distribution of vermicompost has been included in different crop demonstration programmes to popularise the material. Total 130 vermicompost pits were demonstrated in 2004-'05, whereas in 2005-'06, the number of pits was 557.

This model is extremely useful to maintain and enhance the soil fertility. This is a low-cost innovative technology now practiced in micro-watersheds in this district. Construction of this structure is made at home with locally available wood and bamboo.

We have found this extremely relevant for the landless poor in a micro-watershed area.

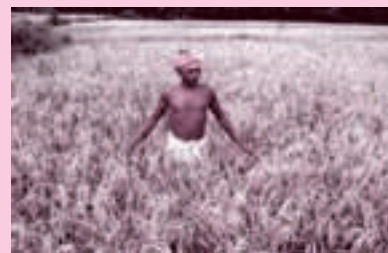
(iv) System for Rice Intensification (SRI) : a case study :

Mr. Tarapada Hembram, a marginal farmer of Saudagarpara in Udaypur mouza at Saltora block experienced a new method of paddy cultivation, called System for Rice Intensification (SRI), in his 17 decimal of Kanali land (medium low-land). Earlier he used to get 2-2.5 quintals of paddy from that piece of land. In 2005, he followed the SRI method and could double the yield to get 5.76 quintals of paddy from that land.

The key interventions in SRI method are:

- 1) Lowering down the seed rate from 10 Kgs./33 decimal to only 1 Kg./ 33 decimal.
- 2) Using young seedlings of 10-12 days old for transplanting.
- 3) Maintaining 1 ft x 1 ft spacing in both line-to-line & plant-to-plant direction and using single seedling for transplanting.
- 4) Application of fertilisers in split (3-4 times) doses & using potash along with urea for top-dressing.

The cost of cultivation is around Rs. 300/- per decimal (excluding labour & irrigation costs). Last year during Kharif season about 46 farmers used this method of rice cultivation in 46 bighas of land. Around 500 farmers of that area were taken to Tarapada's field to see the crop and learn from Tarapada's experience. PRADAN, a non-governmental organisation conducted a series of training programme for those farmers of SRI method. Looking at the low input cost, less labour-intensive practices & high yield, another 450 farmers of Saltora and Chhatna block are taking up this method of paddy cultivation in 20 Hectares of land in the year 2006-'07.



2.5.11 Farmer with his SRI paddy

Thus it is obvious that there is plenty of hope in terms of alternative cropping practices in this part of the country in which the terrain looks so difficult and unproductive. The challenge is in dissemination of right knowledge to the farmers. Village-level institutions such as farmers' club, watershed development committee etc. can be of great help in taking this message to the grassroot.

2.5.4 Forestry :

In Bankura, sizeable part of the land both in forest areas and non-forest areas remain vacant. Since land under Forest Department is approximately 21.5 percent, any poverty reduction effort will remain incomplete unless this area is addressed. Approximately 48 percent of the forest is of degraded type. Moreover the plant cover in non-forest area is depleting gradually. This in turn builds up biotic pressure on the existing forest area. Also forest is an important source of livelihood for the poor people in rural areas. It provides not only employment and income but is also an important source of fuel and fodder for those people. To increase forest area in Bankura is one of the objectives of present-day developmental activities.

From the geographical, socio-economic & environmental consideration, the district offers lot of scope for development of this activity. In view of governmental supports for development of this sector, long-term potential for development through credit may be estimated at 2500 Hectares for the next five years with annual phasing of 500 Hectares.

State Government has implemented social forestry project in the district covering roadside, riverside, railway-

embankment plantation etc. West Bengal Forest Development Corporation, Pulpwood Development Corporation are also working for forest and wasteland development in the district during the past years.

Forest of the district is divided into three divisions. Under State and Central sponsored programmes, rejuvenation and re-plantation are taken up to an average of 1500-1600 Hectares per year. In coming five years 2000 Hectares of land is also expected to be developed with non-timber forest. Development of the activity only on culturable wasteland and fallow land is being taken up through bank-credit.

2.5.4.1 Joint Forest Management :

The concept of Joint Forest Management (JFM) is considerably old in West Bengal particularly in southern part of the state. Although it was formally started in the year 1989, it had been informally in practice, sporadically though, in the field of southern part of the state since early eighties. The tremendous success of this informal practice actually prompted the state government to accept it as a better management practice in forestry and it was formalised by issuance of series of Government orders.

The forests of Bankura are all erstwhile private zamindari forests and were subjected to repeated coppicing. At the time of acquisition by the Government during 1954-55, those were in an advanced stage of degradation. Thereafter, the forests were brought under scientific management.

In 1972, the Socio-economic Research Project for upliftment of fringe population at Arabari in Midnapore district (West Bengal) was started. Then

came the West Bengal Social Forestry Project in 1981 and West Bengal Forestry Project in 1992. These projects helped forest personnel to interact closely with the fringe population and panchayats.

In this background Joint Forest Management was initiated in early nineties in south West Bengal by forming forest protection committees (FPC). Even in very recent past the forests were in highly degraded condition. With constant motivation by the field staff and support from local panchayats, the forest

protection committees are functioning excellently well. Presently people are utilising forests in a sustainable manner, thus the needs of the fringe population are being met without causing damage to the forest crop. Moreover, the assurance of twenty-five percent (25%) apportionment of net sale proceeds of final harvest has acted as an added incentive for Joint Forest Management.

At present the status of Forest Protection Committees (FPC) in Bankura is as shown in table 2.5.15.

Table 2.5.15 Status of Forest Protection Committees in Bankura

Name of the Division	Number of Forest Protection Committee	Total forest area protected by FPC (Sq. Km.)	Forest land (Hec.)/FPC member	Percentage of area under JFM
Bankura North	545	436.132	0.95	88.5
Bankura South	587	429.12	0.81	79.02
Panchet S.C	227	294.35	1.11	89.08

Source: Offices of Divisional Forest Officer, Bankura (North), Bankura (South) & Panchet

All forestry activities are being taken up as per the micro-plan of each FPC, which are prepared through RRA (Rapid Rural Appraisal) by discussion with FPC members and panchayat representatives.

Participation of women in forest management is important. After acquiring joint membership by virtue of government resolution regarding formation of FPCs in 1991, women FPC members are playing active role in most of the FPCs.

To protect the valuable forest from illicit felling, regular patrolling is carried out in the forest areas. The FPC members are also performing regular patrolling duties along with forest



2.5.12 Raising of Sal seedlings at Beliature under National Rural Employment Guarantee Programmes

staff to protect the forest from illicit felling. In case of any detection of illicit felling, prompt action is being taken up by the divisions. To improve the relationship with the people, regular FPC meetings are

held to create awareness among the people regarding the importance of the forest. 'Aranya Saptah' (Forest week) is being celebrated every year to create awareness among the people regarding the importance of forests.

Final harvesting of forest crop in JFM areas had been started for the first time during 1995-1996. FPCs with satisfactory record of forest protection of five years and with crop over ten years of age were taken up for harvesting. Disposal of the entire produce was done by West Bengal Forest Development Corporation Limited. On 17/10/96, for the first time in the history of JFM, 25 percent of net sale value of forest produce was distributed to the members of concerned FPCs.

The impact of the JFM programme on the forests and people dependent on them can be listed as below—

1. Attitudinal changes :
 - a. It has been observed that once JFM Programme was introduced and the foresters were trained in communication skills, PRA, gender issues, micro-planning etc., it has become easier for the Forest Department to deal with the people.
 - b. The regular conduct of seminars, meetings with the participation of JFM Committee (JFMC) members has helped in breaking, to great

extent, the psychological barriers that existed for long between the people and the Forest Department. For example, it has been observed that the contribution of people in the protection of forests has made the job of Forest Department easier as instead of dealing with the forest offenders single-handedly, they now have the willing support of hundreds of JFMC members.

- c. With the improvement of forests, there is also a change in the attitude of foresters towards the people.
 - d. The transparent mechanism for the utilisation of funds for forestry works in JFM has contributed greatly to build the confidence of the people in Forest Department.
2. Sense of belongingness :
- a. As a result of the policy of dealing with the people with a human face and sharing of usufructs, a sense of belongingness has been instilled in the minds of JFMC members.
 - b. The members are guarding the forests like their own property and there are several instances of pitched battle between the forest offenders and JFMC members.
3. Livelihood generation :

The most significant benefits from the implementation of the JFM programme are to the poorest people living in forests or forest fringe areas through generation of employment and income in the forestry operations & NTFP collection and sale particularly during the lean agricultural periods.

In this regard a study has been undertaken by Dr. Ajit Banerjee in collaboration with the University of East Anglia, UK of three villages in Ranibandh, Taldangra and Joypur blocks. From the research findings it appears that on an average the contribution of forest income to total income of the families is estimated to be 11.18 percent whereas, for the poor, it is as high as 32 percent—most of it coming from the non-timber forest produce (i.e., fuelwood collection, Sal leaf collection, Sabai grass collection). Only around 5 percent is obtained from the share of timber felling and sale of timber. Thus non-timber forest produce is equally important, if not more, for the poor.

4. Drop in migration :

Studies have shown that there had been a significant drop in migration to towns suggesting that JFM has successfully generated sufficient income-earning opportunities to discourage seasonal out-migration.

5. Improvement in living conditions :

- a. JFM has improved the living conditions of the poorest in areas where forests were previously highly degraded.
- b. The regenerating forests are producing greater quantities of accessible fuel wood and NTFPs for home consumption.
- c. This has had a considerable impact on their lives, especially women, as they now spend less time at the daily chores of fuel wood and fodder collection.

6. Protection of forests :

The single major gain of the JFM programme has been the protection and regeneration of forests as shown below :

- (i) Control on illicit felling, forest-fires & grazing : The JFMC members are actively contributing to the protection of these forests. Consequently, in JFM areas, the incidences of illicit felling, forest-fires and indiscriminate grazing have been significantly reduced.
- (ii) Control on smuggling : In areas where the JFMCs are located on the smuggling routes, the forest is protected because of constant vigil.
- (iii) Control on encroachment : (a) If trees are cut and removed, there is always a chance of regenerating the area, but if the land itself is lost due to encroachment, there is no chance of getting back the forest.
 - (b) Not only have the JFMC members stopped the extension of encroachment in JFM areas they have succeeded in evicting the encroachments, too, especially where outsiders were involved.

Though JFM has been quite a success in this district, there are concerns regarding the species being taken up for plantation. A major share is Eucalyptus, which gives good return and coppices fast. However, the undergrowth of shrubs and other non-timber forest produce is less in case of Eucalyptus. Originally Sal

was the main species in this area. It has a very good timber value and is also very rich in non-timber forest produce. However, it is difficult to raise Sal since it requires better soil quality. Wherever good quality top-soil has eroded over the years, some other species

needs to be planted first to bring back the fertility before Sal is taken up. An effort is being made to revive Sal under the Rashtriya Sam Vikas Yojana (RSVY) and the National Rural Employment Guarantee Scheme.

Nursery and plantation raising at Saltora : a case study

People of the area are mainly dependent on rainfed agriculture. Total rainfall was 1116.5 mm in the year 2005 against an average rainfall of 1300 mm. The topography of the Murlu range is undulating with a maximum slope of 10 percent. During run-off, it carries fertile topsoil, which gets deposited into the drainage basin. As a result, the crop production gets affected. Community uses seepage water wherever available by tapping through shallow wells (locally called 'Chuanh').



2.5.13 Nursery raising by the members of Forest Protection Committee at Saltora

The plantation process started with the nursery raising in the Murlu range with the continuous supervision of Forest (North) Department. Plantation was made for 6 Hectares of forest land in Goswamidihi patch. The 165 members of Goswamidihi Gurukundathol Forest Protection Committee (FPC) were engaged in the job for labour component. The main activities had been cutting the bushes, pit-digging, nursery raising, and pit-filling with plantation. The main species of plants are Akashmoni, Sonajhuri, Ghamar and Bohera. The total persondays created for the work is 345. The Forest Department and local FPC are sharing the responsibility of maintenance of the patch.

2.5.5 Animal resource development :

Animal resource development is an important complementary source of employment and livelihood for rural people. It is increasingly being recognised that to improve the rural economy, attention has to be paid to livestock production, which is a major livelihood activity in most area. In addition to providing income through animal and dairy sales, it has an important function for enhanced crop production by supplying manure in the field. Thus in the ecologically fragile semi-arid regions, livestock makes an important contribution to the survival of the economically weaker sections. To make it a viable enterprise, it is important to make available good breeds, fodder and veterinary services. The major problem with livestock rearing is the scarcity of fodder and the unavailability of good quality of commercialised breed of livestock. Provision of veterinary services and commercialisation by providing marketing and processing facilities for the

dairy and poultry products are some of the areas of intervention for the development plan proposal of the district. Bankura has a dry weather, which makes it a very suitable place for animal resource development.

2.5.5.1 Cattle development :

Development of milch cattle has a very big potential in this district. Steps have been taken to meet the fodder requirement by cultivating fodder in blocks like Raipur, Sonamukhi and Sarenga. Efforts are also being made to encourage farmers to cultivate fodder on their private land. Fodder which can be cultivated in dry weather needing less irrigation like maize, oats, stylo, sorghum etc. are being emphasized. In Bankura, people cultivate what is locally known as 'Ghas Chal'. It provides them rice-like foodgrains and the plant is very nutritious for animals. It requires very little water and is very suited to this area. In fact, it is very difficult to motivate the farmers not to go for paddy and take up fodder

cultivation. Some farmers have been seen to be under false impression that paddy straw has good nutritional value. In Bankura, where farmers have hardly one crop in many parts of the district, switching to fodder cultivation may prove to be very profitable. One artificial insemination (AI) centre exists in each Block whereas 'Pranibandhus' based at each Gram-Panchayat provide technical support and advice regarding AI, cross-breeding, vaccination etc. A new approach has been

adopted in which milk cooperative societies are being trained on AI so that they can meet the requirement of their members. In this district, which is sparsely populated, this can be very effective since journey time of 'Pranibandhu' becomes substantial and there is every likelihood of AI failure. 'Gabhi-Mela' are also being organised to popularize milch-cattle among rural people. The distribution of cross-breed milch cow is indicated in table 2.5.16.

Table 2.5.16 Block and municipality-wise number of cross-bred cattle (as on 15.10.2003)

Subdivision	Block/Municipality	Number of cross-bred cattle
Bankura	Bankura-I	838
	Bankura-II	7988
	Barjora	1936
	Chhatna	982
	Gangajalghati	4423
	Mejhia	221
	Onda	12625
	Saltora	313
	Bankura Municipality	723
	Bishnupur	Bishnupur
Indas		4954
Joypur		5679
Kotulpur		4227
Patrasayer		2424
Sonamukhi		8437
Bishnupur Municipality		1255
Sonamukhi Municipality		200
Khatra	Hirbandh	255
	Indpur	662
	Khatra	770
	Raipur	531
	Ranibundh	388
	Sarenga	1122
	Simlapal	3811
	Taldangra	1979
	District total	69305

Source: 17th. livestock census

2.5.5.2 Kangsabati Co-operative Milk Producers' Union Limited (KAMUL), Bankura :

There is a milk union in this district. The main function of the milk union is arrangement of marketing of milk produced by the village cattle-owners at remunerative price regularly through Milk Producers' Co-operative Societies (MPCS).



2.5.14 Animal health camp at Khatra

At the same time it is engaged in augmentation of milk production in the villages through cattle development by production of improved variety calves through artificial insemination of indigenous cows, green fodder cultivation. KAMUL is also supplying balanced cattle-feed, green fodder-seeds to the farmers through these MPCS.

Recently cross-breed cows having the capacity of production of 6-8 litres milk per day are being distributed to the scheduled caste women beneficiaries in the villages of this district under Mahila Samridhi Yojana, a project of West Bengal Scheduled Caste & Scheduled Tribe Development & Finance Corporation. These women beneficiaries have started earning regularly through milk selling at the MPCS. KAMUL is also supplying balanced cattle-feed to these women beneficiaries.

KAMUL has at present 55 MPCS and other 11 women MPCS at Raipur, Sarenga, Simlapal and Taldangra blocks. Milk is being collected from the farmers at the MPCSs, and then it is carried to Raipur milk chilling plant for chilling. After that it is being supplied to Metro Dairy, Barasat.

A programme for expansion of chilling capacity of Raipur milk chilling plant from 4000 Kgs. per day to 10000 Kgs. per day has also been taken up under the Rashtriya Sam Vikas Yojana (RSVY). A pasteurizing and packaging plant is also coming up. KAMUL has initiated another programme of engaging unemployed youth of villages as veterinary field-worker at MPCS level, who will conduct artificial insemination and motivate them on introduction of cross-breed cows, fodder cultivation etc. The milk collection reaches around 10000 litres per day in the peak season which

implies that nearly Rupees One Lakh is being pumped into the economy everyday.

2.5.5.3 Mahila Samridhi Yojana :

The West Bengal Scheduled Caste & Scheduled Tribe Development & Finance Corporation has introduced Mahila Samridhi Yojana (MSY) during the year 2003-04 as a self-employment income-generating scheme for the SC women living below the poverty line. Under the scheme a SC woman may get maximum Rs. 25,000/-, out of which subsidy component is Rs.10,000/-. The loan amount alongwith interest @ Rs. 3 percent per annum is repayable in twelve equal quarterly instalments.

In Bankura district 4088 house-dairy schemes have been sanctioned under the scheme and an amount of Rs. 4,39,40,000/- received so far for 2200 MSY cases. The following procedure has been adopted in this district for effective implementation of MSY cases, especially for house-dairy scheme :

First of all, Rs. 2,500/- is given to the beneficiaries for construction of cow- shed.



Map 2.5.9 Raipur chilling plant & Milk Producers' Co-operative Societies in Raipur, Sarenga, Simlapal & Taldangra blocks of Bankura

Source: NRDMS, Bankura

- (ii) In the second phase Rs. 14,000/- is earmarked for purchase of milch cow. The cow is purchased through holding of 'Gabhi Mela', where reputed

suppliers bring cross-bred milch cows and the beneficiaries themselves select cows of their own choice through negotiation. Representative of insurance company, Block Livestock Development Officer, Veterinary Surgeon, Branch Manager of bank concerned, Managing Director of Kangsabati Co-operative Milk Producers' Union Limited (KAMUL), Sabhapati of the Panchayat Samity and local Block Development Officer remain present to make the Mela a success.

(iii) Finally the balance amount is given to KAMUL for supply of feed, medicine, vitamin tablet, deworming tablets etc. to the beneficiaries. They are encouraged to form milk Co-operative society so that they may sell their milk to KAMUL. Because of the presence of the milk union marketing is not an issue.

In our District, 488 milch cows have been distributed to 488 SC women in three blocks namely Raipur, Sarenga & Ranibandh through 14 Gabhi Mela.

Table 2.5.17 Block-wise number of cross-breed milch-cow distributed through Gabhi Mela under Mahila Samriddhi Yojana

Name of the Block	Number of cross-breed milch cow distributed during the year		
	2005-2006	2006-2007 (upto 15/8/06)	Total
Raipur	193	199	392
Sarenga	69	1	70
Ranibandh	11	0	11
Chhatna	0	15	15
Total	273	215	488

Source: District Manager, SC & ST Development & Finance Corporation, Bankura

Mahila Samriddhi Yojana : a case study

Smt. Rekha Kotal of Vill. Chhoto Sarenga of Sarenga Gram-Panchayat is a poor scheduled caste woman who used to earn her bread by working in agriculture field on daily wage basis. Her husband is also an agricultural labour. During the lean season she hardly got employment in any other sector. She applied for a loan for milch cow under MSY. Her loan was sanctioned and she was given a milch cow through a 'Gabhi Mela' held at Sarenga. She has been a member of milk producing society and KAMUL purchases the entire milk for Raipur chilling plant. Her cow produces eight litres milk per day and she is now earning Rs.80/- per day by selling milk. The local Block Livestock Development Officer and Veterinary Surgeon are rendering all sorts of medical help for her milch cow as and when required.



2.5.15 Rekha Kotal with her newly purchased cow at a Gabhi Mela

2.5.5.4 Goatery :

Though goat rearing is a common rural practice in Bankura, some individuals in blocks like Bishnupur, Kotulpur, Sonamukhi, Chhatna, Simlapal, Indpur and Indas have established goat farming. But the major

impact has been in Ranibandh and Raipur Block, where a joint venture of Government with the non-governmental organizations (NGO) has been able to bring about 182 self-help groups (SHG) under the fold of goat rearing.

Goat development programme - a case study

Goat rearing is an integral part of the farming system and finds multiple uses for milk, meat, skin & manure. Goat population in the West Bengal is about 16 million in spite of about 38 percent annual slaughter rate and approximately 15 percent mortality. It has an ability to thrive on a wide range of shrubs and herbs and the general practice of goat-owners is to depend on free grazing of common land & forest. A strategy to harness the potential of goat rearing for gainful self-employment in the rural areas is possible only if productivity of local goat and fodder resources in the villages are improved. Effort should be made to improve the nutrition and health through the supplementary feed, de-worming, and preventive vaccination, controlled grazing and stall-feeding to enhance returns. This will strike a balance between goat and the eco-system and harness the potential of goat-rearing for gainful self-employment in the rural area.

General objective :

The overall objective of the project is to demonstrate improved goat-husbandry practices for improving the productivity of the local black Bengal goats and thereby enhancing the income of the goat keepers.

Specific objective :

- To motivate the goat-keepers to organise themselves into groups for undertaking improved goat-husbandry practices.
- To demonstrate viability of goat-keeping on a commercial scale without adversely affecting the environment.
- To promote improved breeding through use of superior breeding bucks.
- To promote the use of sound valuation parameters for better price realisation.
- To strengthen the capacity of local NGO & community workers for undertaking goat development activities and providing service to the community.

Target area :

Ranibandh & Raipur Block

Implementation strategy under this project :

The main objective for this programme is to make aware the target group and Block & district-level administration on improved goat management practices. Around 200 members from forty women SHGs in Ranibandh & 150 members from twenty-five women SHGs in Raipur Block have been participating in this programme.

Intervention under this project :

- Breeding buck distribution (Thirty-five breeding bucks have been distributed among thirty-five goat groups at Ranibandh & Raipur block.)
- Insurance coverage
- Vaccination & de-worming
- First-aid treatment and linkages with Animal Resource Development Department
- Castration
- Growth monitoring
- Capacity building of the local community

Present status :**Table 2.5.18 Progress of improved goat management practice by women SHGs in Raipur & Ranibandh blocks**

Name of the Block	Number of goat groups formed	Number of goat-keeping families in the goat groups formed	Number of adult female goats maintained by the goat-keepers in the goat groups	Number of bucks required (for breeding)
Ranibandh	181	814	4414	191
Raipur	115	615	2528	121
Total	296	1429	5057	312

N.B.: Each goat group will get one breeding buck

Source : SEDP, a non-governmental organisation involved in the project

A study was undertaken to assess the potential of goat rearing in rural areas of West Bengal. It was observed that the potential for goat-rearing as income generating activity can be explored through improved breeding and goat-husbandry practices. Use of superior buck of Black Bengal breed for breeding and creating awareness about improved rearing practices are recommended for development of local goat.

Impact of this programme :

- Mortality rate is reducing due to regular immunisation
- Higher realisation in returns in respect of selling goats
- Weight gain is increasing due to proper nurturing of goats and regular deworming
- Grass-root level Field Guides are working as friend of goat-keepers and giving first-aid and other services to goats in time.

Conclusion :

This intervention has revealed that goatery scheme is not about distributing goats, but is essentially providing the right inputs for the goats being reared by the villagers and increasing their capacity for proper goat-rearing.

Table 2.5.19 Livestock and poultry in Bankura

Sl. No.	Category		Category-wise number of livestock and poultry during the year			
			1982	1989	1994	1997
1	Cattle	Cows	400666	438250	431329	444050
		Bulls and Bullocks	357677	382126	403709	415710
		Young stock	389594	436152	467707	481508
		Total	1141937	1256528	1302745	1341268
2	Buffaloes	Cows	19064	22611	23855	24156
		Bulls and Bullocks	90856	88702	97918	99155
		Young stock	15569	18005	22059	22337
		Total	125489	129318	143832	145648
3		Sheep	148008	152392	123392	139460
4		Goats	744506	709905	709198	786134
5		Horses and ponies	23	9	10	10
6		Pigs	77622	93390	105168	113403
7		Other livestock	15	0	0	0
8	Poultry	Fowls	917025	1197203	1219098	1339958
		Ducks	503245	596675	759863	861010
		Others	9507	3214	0	0
		Total	1429777	1797092	1978961	2200968

Source: Livestock census report, Government of West Bengal

2.5.5.5 Poultry :

Poultry farming is becoming increasingly popular among the rural youth of Bankura, who run broiler farms with the capacity of 1000 to 5000 birds. Some big broiler farms are established by individual farmers at Krishnanagar (Onda block), Chhatna, Beliatore, Barjora with a capacity varying from 20,000 to 50,000. Generally broiler chicks are supplied by big hatcheries who supply chicks, feed, medicines, vaccines and lift the birds on the 40th day and pay the farmers Rs.2.70 to Rs.3.00 per kg live weight of the birds. In Chhatna Block, two layer farms are also established

with a capacity of one lakh layer birds, whereas two resource farms for RIR chicks are developing at Korapara in Chhatna Block and Masterdanga in Sonamukhi Block.

There is vast uncultivated land in the district of Bankura, particularly in the blocks of Sadar and Khatra Subdivisions. So dairy development, goatery, by individual and backyard poultry farming, have ample scope for development. This should be supported by proper scientific approach, introduction of modern laboratory facilities and supply of vaccines. Big farming in all the three sectors have immense scope in Bankura.

Sustainable livelihood for rural women through poultry farm : a case study

History :

Tillaboni is a tribal village under Raatora Gram-panchayat of Ranibandh in which there are 231 households. Out of 231 households, 108 households migrate due to food scarcity. A total of 222 members from 201 households have formed eleven women self-help group (SHG) under facilitation of SEDP-Ranibandh, a non-governmental organisation (NGO). The members have a saving bank account at the Punjab National Bank, Jhilimili branch and are depositing Rs. 20/- per month. Due to seasonal migration, monthly meeting was not conducted, but monthly savings is deposited regularly at the bank. Out of the eleven SHGs, Tilaboni Mahila Self Help Group-9 has twelve members from twelve families. The main livelihood of these families is agricultural labour and collection & selling of minor forest product. This group opened a saving bank account on 24th June, 2003 and are depositing regularly Rs. 240/- (two hundred forty) per month. Out of twelve family, four families, i.e., families of Manju Singh, Padma Patra, Sandhya Singh & Bimla Singh had to go to Burdwan & Hoogly district due to food scarcity. These families never attended the monthly meeting and were not aware about group intervention.

Process :

The SHG has been provided a shade, which can accommodate 5000 birds. The chicks are supplied by Arambag Hatchery, a reputed farm in West Bengal. Other inputs like medicine, funds etc. are also provided by the hatchery. The entire flock is bought back after 42 days.

Table 2.5.20 Analysis of earning through birds (upto June, 2006)

Sl. No.	No. of days	No. of birds supplied	No. of birds surviving	Mortality (in percent)	Amount received (Rs.)
1	35	5193	4500	3.35	13,500/-
2	35	5200	4475	2.95	13,425/-
3	35	5200	5096	2.00	15,288/-
4	40	5200	5120	1.54	15,360/-
	Total				57,573/-

Source: SEDP, a non-governmental organisation involved in the project

Impact :

- The quality of life of the members of the group has, in general, improved.
- They have engaged tutors for their children for better education.
- Interpersonal understanding has developed among the group members.
- There is no starvation in these families.
- Regular maintenance of their house has become possible.
- Migration has stopped.
- Neighborhood attitude is developing among the members.

Area of concern :

- Food storage space
- Residential room

- Lack of light
- Lack of fuel

Increasing animosity with other villagers

Table 2.5.21 Analysis of earning through employments (upto June, 2006)

Batch	No. of mandays /per day	No. of mandays	Rate (Rs.)	Amount (Rs.)
1	5	35	50/-	8,750/-
2	5	35	50/-	8,750/-
3	5	35	50/-	8,750/-
4	5	40	50/-	10,000/-
Total				36,250/-

Source: SEDP, a non-governmental organisation involved in the project

This experiment has revealed the benefits arising out of the private partnership. All the inputs, extension services, technology as well as marketing is provided by the private partner.

2.5.6 Horticulture :

In this part of 'Rarh' region, horticulture appears to be one of the most important fronts for economic development. The agro-climatic condition is well-suited for development of horticulture. Nearly sixty-seven percent of total net cropped area in Bankura falls under rainfed cultivation resulting poor productivity. Regular return during lean season is also not ensured, specially on upland (locally known as 'Tar' land).

Horticulture can play a vital role in the following areas:

- Diversified farming
- Proper utilisation of wasteland/highland/underutilised land
- Export potentiality
- Sustainable growth
- Aesthetics
- Environmental regeneration and eco-friendly commercial utilisation
- Nutritional safety

The Food Processing Industries & Horticulture Department, Government of West Bengal, after being created in the year 1997, has laid emphasis for overall development of horticulture in the district. The

National Horticulture Mission has been taken up in a big way with modern technology for increase in area and production.

The prospect of Bankura as a horticulture-growing district is as follows:

- Fruits like Guava, Mosambi, Mango, Cashew-nut, Bel, Pomegranate may successfully be cultivated on the red lateritic soils/upland of the district. Since the soil is acidic in western Bankura, it is very much suited for citrous fruits.
- For spices & condiments cultivation of Corriander, Chilli, Ginger, Turmeric have great potentiality.
- Area expansion of Betel-vine may be taken up.
- Commercial medicinal plants cultivation like Sarpghandha, Vasaka, Kalmegh, Safed musli, Stevia, Nayantara may be attempted.
- Preservation of vegetables like Tomato etc. can prevent glut during the peak production time. The fruit & vegetable preservation units of Agricultural Marketing Department can facilitate assistance in this aspect.
- The minor fruits like Amola, Custard apple, Karonda, Sapota, Tamarind, Bael, Jamun, Drumstick also have good potentiality in the agro-

- climatic conditions of the Bankura district.
7. In social forestry programme, 30-40 percent horticultural plantation of fruit-plants like Mango, Jamun, Jackfruit may be included to get fruit, timber, shade and other need of the rural community.
 8. Cultivation of flowers like Marigold, Tuberose, Jasmine in open field and Rose, Carnation, Gerbera, Chrysanthemum in poly-houses/glass-houses can bring a new change in the farming scenario.
 9. Jasmine and Rose cultivation for perfumery business and extraction of essential oil may be taken on a pilot scale.

The district faces some constraints like lack of storage, processing and marketing facilities, poor technological knowhow and non-availability of good quality seeds and sapling, which stand on the way of horticultural production.

The small and marginal farmer population in the district can take up the activity as backyard plantation and plantation on wasteland.

Wadi programme : a case study

In Gujarati, 'Wadi' means a small orchard. For about last ten years, National Bank for Agriculture and Rural Development (NABARD) began to implement Wadi in collaboration with Bharat Agro-Industries Foundation (BAIF) under its Tribal Development Fund in the states of Gujarat and Maharashtra. The programme was later extended to Orissa, Chattisgarh and lately in West Bengal where two blocks, one in Purulia and one in Bankura, have been selected to implement Wadi.

In Bankura, Ranibandh was selected for being a tribal dominated block, and Nari Bikash Sangha was identified by the State Government and NABARD as the project implementing Agency. The project is being jointly funded by Backward Classes Welfare Department of the State and NABARD.

The Nari Bikash Sangha, after a quick survey in the block, prepared a detailed project report and submitted it to the state government and NABARD. The report was approved and the project was formally launched in February, 2006.

The main objective of the project is to improve the quality of life of 1000 tribal households of the block by enhancing their income and employment potential through land-based alternative livelihood options and by supporting social development of participating families including women's empowerment process.

The project targets 1000 tribal families of the block in a phased manner, 200 in the first year and 400 each in the next two years. Each tribal farmer possessing land holding up to 5 acres is eligible to participate in the project and one acre of marginal land out of this will be developed as an orchard (Wadi) to be managed and owned by the tribal household.

After consultation with the participating farmers and horticultural experts, it has been decided that each Wadi will be planted with 70 fruit trees, 40 mango and 30 cashew, and 350 useful forest species as boundary plantation for firewood, fodder and timber.

Average cost of raising one acre Wadi up to fruit-bearing stage is slightly more than Rs. 30,000. A one acre Wadi is estimated to provide a net farm income of Rs. 17,000 in the first year of fruit-bearing and double this amount from the 12th year onwards. With this kind of annual income from one acre Wadi and agricultural income from the rest of land, a tribal household is expected to cross not only the poverty threshold but to be forever free from the compulsion of migrating as seasonal agricultural labour.

The project funding will meet the full cost of all planting materials, fertilisers and pesticides, tools and equipment, soil conservation and water resource development measures, women's development,

community health, training and capacity building initiatives, and 70 per cent of labour cost. It is estimated that 1800 Metric Tonnes of mango and 210 Metric Tonnes of cashew will be produced per annum after the stabilisation of yield. An estimated 2.72 lakh person-days of employment will be generated during the project period, and 30,000 per annum after the project period. Institutional arrangement in the nature of Wadi participant groups, village planning committee and a co-operative has been envisaged in the project.

In Bankura, there is a large number of cashew trees but the quality is poor. An effort is being made to introduce Vengurla-4 and H-2/16 variety, which has very good commercial value. It has been seen that people are highly motivated in taking up this scheme since their own land is utilized for plantation and the ownership level is very high.

WADI programme also envisages in due course formation of co-operatives, which will take care of fruit processing and marketing. Computerised land record was of great help in identification of villagers having Tar (i.e. upland classification) land between 0.5 acre to 1.0 acre.

2.5.7 Fishery :

Pisciculture is an important livelihood option for people in rural areas. It is estimated that for every fisherman engaged in fishing activity, about four others will benefit by way of additional employment generated through post-harvest operations like marketing and other allied activities. Pisciculture is one of the major areas of intervention in the district. The idea is to increase the income of the fishermen engaged in the fishing by providing better facilities and training to the

fishermen and also by bringing in more area under pisciculture.

Under Rashtriya Sam Vikas Yojana (RSVY), nearly 81 Hec. of pond area has been excavated. The scheme has been implemented through fishermen's groups in a participatory mode. The fishermen's groups have been encouraged to share a small part of the produce with the Primary Schools to make it a part of the mid-day meal. This has created a stake of community at large in the project which has been very helpful in its execution.

Table 2.5.22 Pisciculture in Bankura : some statistics (as on 1.1.2006)

Total water area	52341 Hec.
Total impounded water area	22697 Hec.
Water area under river, canal/khal, beel, baor	29644 Hec.
Water area under pisciculture	14400 Hec.
People engaged in fishery	1,85,000 (approx.)
Fishermen population	37,500
Annual production of table fish	21,750 Metric Tonnes
Number of Central Fishermen's Co-operative Societies	2
Number of Primary Fishermen's Co-operative Societies	40
Fish production groups	15
Fisher-women trained in net-making	760
Fishermen receiving Old Age Pension	67

Source: Office of the Additional Director of Fisheries, Bankura



2.5.16 Lalbandh at Sonamukhi, ready for pisciculture (a RSVY project)



2.5.17 Work in progress at Chhatna where both men & women SHGs are working together (a RSVY project)

2.5.7.1 Seedling production at Ramsagar in Onda Block:

So far as the activities of fishery sector in Bankura is concerned, fish-breeding industries in Ramsagar and surrounding zone requires special mention. Transaction of about Rs. 6-7 crores through spawn production of about 50,000 million numbers in 225 to 250 numbers of hatcheries per annum occurs in that zone. About 1500 to 2000 workers are directly involved in production system and many other enterprises have grown by correlated activities. Spawn purchasers from different parts of India come here every year to purchase various types of spawn.

Of late, the spawn producers are facing some problems relating to infrastructural support. Proper maintenance of link road from the hatchery site to the main road, electrical facilities, shelter for spawn purchasers are essential to run the industry smoothly. There is a need to create marketing infrastructure in the form of kiosks to bring in transparency and discourage middlemen who have entered the game since the life span of fish spawn is very small. It is also difficult to ensure quality checks during sale/purchase.

Table 2.5.23 Fish seed (IMC and exotic carps), fingerlings production in Bankura

Year	Number of rearing ponds	Water area covered (in Hec.)	Fingerling production		Sale value (Rs. in lakh)	Production cost (Rs. in lakh)	Net profit (Rs. in lakh)	Average sale value (Rs. per Kg.)
			Number (in million)	Weight (in MT)				
2000-'01	1018	544.0	456	5472	1915.00	638.00	1277.00	35
2001-'02	1086	575.5	486	5832	2041.20	680.00	1360.00	35
2002-'03	1121	599.5	502	6024	2168.64	722.88	1445.76	35-37
2003-'04	1228	612.0	554	6648	2393.28	797.76	1595.52	35-37
2004-'05	1445	664.5	585	7020	2597.40	865.80	1731.60	35-38

Source: Office of the Additional Director of Fisheries, Bankura

Table 2.5.24 Fish production in Bankura district

Year	No. of stocking ponds	Water area covered (in ha.)	Fish production (MT)	Sale value (Rs. MT)	Total sale value (Rs. in lakh)	Total production cost (Rs. in lakh)	Net profit (Rs. in lakh)	Average sale value (Rs. per Kg.)
2000-'01	22213	19620.40	49051.61	36000	17658.57	3433.61	14224.96	36
2001-'02	22342	19700.65	49744.16	38000	18902.78	3730.81	15171.97	38
2002-'03	22411	19715.25	50273.88	40000	20109.55	3803.21	1630.34	40
2003-'04	22437	19722.50	50785.43	40000	20314.17	3948.56	16365.61	40

Source: Office of the Additional Director of Fisheries, Bankura

2.5.8 Sericulture :

Sericulture of Bankura district has a long heritage. Century-old Baluchari silk sarees has a wide international name. Tasar silkworm rearing at natural forest has traditional practice among the poor tribal folks of this district. Sericulture may provide good scope for upliftment of the villages and reduce disparity in village economy.

Sericulture industry in the district may be classified into two sectors, viz., mulberry and tasar. Silk is concentrated in northern and eastern part while tasar is practiced,

mostly by tribal people, in southern and western parts of the district. The tasar rearers of this district are decidedly the best rearers of West Bengal in their skill.

So far as mulberry cultivation is concerned, new areas have been brought under cultivation and replacement of local varieties and replantation with high-yielding varieties are being made. In order to maintain and supply of quality disease-free layings (dfls) to the rearers at subsidised rate, grainage units have been started.

Tasar host plantation (Arjun) has also come up in a big way since 1980 in the district. The most unfertile,

barren wasteland, hillocks and fallow land have been covered by Arjun providing livelihood to the poor tribals and has become one of the primary source of income. The improved technology is being used in

order to improve upon and maintain the quality of disease-free layings (dfl) consistently and in turn to improve the productivity.

Table 2.5.25 Some facts on sericulture (as on 31.3.2005)

Area under Mulberry		111.22 Acres
Area under Tasar plant		4606 Acres
Number of rearers	Mulberry	140
	Tasar	3300 families
Infrastructure at Government level		
	Mulberry	
	Basic seed farm	5
	Grainage	1
	Cocoon market	1
	Tasar	
	Pilot project centre (seed farm)	2
	Grainage	3
	Technical service centre	4
	Growth centre	2
	Reeling training-cum-servicing centre, Bishnupur	1
	Reeling devices	
	Mulberry	4
	Tasar	3
	Tasar spinning devices	3
Infrastructure under private sector		
	Drying chamber	5
	Khadi handloom co-operative on post-cocoon sector	12
	NGO under sericulture	2
	Women groups	36
	Tasar grainage groups	34
	Reeling device	57
	Spinning device	53
	Reeler (Mulberry)	10
	Reeler (Tasar)	243
	Spinner (Tasar)	388
	Weaver	3000
	Twisting unit plant	10
Extension area		
	Number of Blocks covered	19
	Number of Gram-Panchayats	85
	Number of sericulture villages	191

Source: Deputy Director, Sericulture, Bankura

Strength:

1. Enormous quantum of wastelands and uplands on which Arjun can grow without irrigation facility.
2. Existence of tribal habitation in the vicinity of wastelands and uplands. Tribal people are accustomed with and efficient in tasar rearing.
3. Wide infrasutructural facilities in the form of seed farms, grainage, technical service centre etc.
4. Existence of non-governmental organisations (NGO) having experience in the field, women groups, tasar grainage groups, reelers, spinners and weavers.

Opportunities:

1. Scope for new plantation

2. Regeneration of existing plantation
3. Use of mechanical reeling/spinning devices
4. Encouraging post-cocoon activities

Strategy:

1. New plantation of 400 acres at every three years interval
2. Regeneration of 400 acres of existing plantation
3. Renovation of existing grainage
4. Creation of two grainage groups per year.
5. Training in reeling/spinning activities
6. Introduction of inter-cropping of shade-loving species of plants in Arjun orchards.

Table 2.5.26 Production status of tasar-national vis-à-vis state vis-à-vis district (as on 31.03.2005)

Country/State/ District	Production of tasar cocoons	Percentage of contribution	Raw silk production (MT)	Percentage of contribution
India	2368 lakh	–	452	–
West Bengal	252 lakh	11.36 (with respect to India)	41	9.07
Bankura	116 lakh	46.03 (with respect to West Bengal)	15.7	39.25

Source: Deputy Director, Sericulture, Bankura

It appears from the above figures that within last few years the district has moved ahead in utilising available land and human resource for gainful employment.

Intercropping with Tasar is now being attempted to enhance the return. Mechanical reeling and spinning is yet to start in the district on a big scale.

Table 2.5.27 Status of tasar culture in Bankura (as on 31.3.2005)

Sl. No.	Name of the Block	Plantation (acre)	No. of rearers involved		No. of dfls. reared	No. of cocoons obtained	Approx. value of production (Rs.)	Mandays generated (mandays)
			Male	Female				
1	Ranibandh	1554.54	1840	730	56,536	2,436,649	1,522,905.00	56,536
2	Raipur	939.71	1626	498	35,250	1,568,625	980,390.00	35,250
3	Hirbandh	1148.22	1478	525	43,800	1,943,406	1,214,628.00	43,800
4	Khatra	289.13	560	400	25,050	1,216,434	760,271.00	25,050
5	Sarenga	62.50	232	20	5,500	207,500	129,687.00	5,500
6	Chatna	214.68	465	25	11,135	296,000	185,000.00	11,135
7	Bankura-I	25.00	45	X	2,475	91,405	57,128.00	2,475
8	Onda	48.75	170	30	4,500	100,800	63,000.00	4,500
9	Taldangra	45.78	10	X	6,800	274,578	171,611.00	6,800
10	Patrasayer	25.00	60	8	5,750	121,356	75,847.00	5,750
11	Bishnupur	30.00	50	X	4,000	148,850	93,031.00	4,000
12	Joypur	4.00	10	X	600	15,920	9,950.00	600
13	Indpur	259.49	380	40	11,050	383,368	239,605.00	11,050
14	Borjora	12.50	20	X	1,400	12,500	7,812.00	1,400
15	Simlapal	24.50	30	X	2,000	40,000	25,000.00	2,000
16	Kotulpur	0.50	5	X	200	6,295	3,934.00	200
17	Saltora	25.00	30	X	200	10,000	6,250.00	200
Total		4709.30	7011	2276	216,246	88,73,686	5,546,049.00	216,246

Source: Deputy Director, Sericulture, Bankura

Case study on Tasar culture at Ranibandh

Bankura district was once famous for its Tasar industry. In one part of the district, farmers reared tasar cocoons on forest trees and in another part, these cocoons used to be converted into beautiful fabric. By late seventies, both the sectors had a declining trend.

In order to give a boost in production of raw material, viz. cocoon, an inter-state Tasar project was initiated in early eighties in the district to set up the needed infrastructure. By late seventies and early eighties, the research and development division of the Central Silk Board had come up with a technology

package on tropical tasar, through economic bush plantation of Tasar host trees, mainly Asan and Arjun, at proper spacing and height, thus reducing the hazards of rearing on high trees as is done on forest trees and using wasteland in rainfed conditions for productive purpose. Except the improved technique of propagation of Arjun plants, the package includes improved rearing techniques, producing disease-free layings, control of disease and pests of tasar silk worm and host plants, chemical analysis of food plants and silkworm and improved method of silk extraction through new technologies, both for pierced and un-pierced cocoons etc.

It may be remembered that Tasar silk industry is sharply divided into two sectors. Producers of raw material, viz. cocoon, are hardly engaged in processing activity known as post-cocoon sector. While in the post-cocoon process, large number of women were involved in silk extraction, women's involvement in rearing of cocoons was totally absent due to physical problem of climbing high trees, but most importantly women's touch was considered defiling and as rearing was to be done in the open, women's sexuality could not be put to risk.

In this existing scenario, an affiliated Mahila Samiti of Nari Bikash Sangha (NBS) in Ranibandh block raised its first economic bush plantation on a seven acres of absolute wasteland in 1981. The land was gifted to the Mahila Samiti by the community at the instance of the-then persuasive Minister for Land Reforms and Panchayat. The trees were nursed to maturity and the time came for the first rearing. A trainer from the local station of Central Silk Board agreed to come down to the plantation to train the prospective women rearers. Economic bush plantation under controlled height was ideally suited for rearing by women. At this point, the community struck. 'Who has ever heard of women rearing tasar cocoon?', retorted the men, who themselves never reared tasar silkworm. The same excuse was given, 'women's touch will kill the worms as they are impure'. When parallel examples were given of many things not dying which women touched, men agreed with a visible grudge and a lurid expectation that the worms should die. Women on their part performed a puja, approached soothsayers and promised a goat and began to rear for the first time in their life. It was a fairly successful harvest at the end and the men relented.

The turning point of tryst with Tasar culture on wasteland by NBS was definitely the Baroghutu plantation raised in 1985-1986. The NBS was flooded with the request from several villages in Ranibandh, Khatra, Raipur and distant villages of Purulia with offer of wasteland and a group of tribal women eager to come together. Nari Bikash Sangha went about slowly with the fund from International Labour organization (ILO) and a few other philanthropic donors to raise several hundred acres of plantations in Bankura and neighbouring districts to play the role of the front-runner in reviving the dying pre-cocoon sector.

Admittedly, the real boost in this sector was given by the UNDP-supported Tasar Development Project in 2000. The project introduced new technology, improved seed, and management system and training. The best component of the project was in the area of decentralisation of grainages and a well-trained group of women involved in the activity. During the last six years, tasar culture has become a movement in south-western Bankura and production of cocoon has reached a new height. The credit for this development can safely be given to Nari Bikash Sangha. The unfinished agenda before NBS is to press for fair and remunerative price of cocoon in comparison to the price of fabric.

Finally, as an attempt to integrate the pre-cocoon and post-cocoon sectors, the NBS has plans to begin with reeling and spinning activity in the coming years, and to arrange for needed infrastructure creation and required training process.

2.5.8.1 Initiatives under Rashtriya Sam Vikas Yojana (RSVY) :

- (a) Baraghutu Gramin Mahila Samity of Khatra block planted Arjun seedlings under the scheme of 'creation of new Arjun plantation' on 43 acres of vested land by adopting the technology provided



2.5.18 Arjun nursery at Baraghutu

by the Department. 2924 numbers of person-days have been created during first year for plantation, nursery raising, pit-digging and transplantation. A total of 51,600 numbers Arjun seedlings were

transplanted with weeding and manuring. Rs. 2,16,043 was provided as wage to the group, which includes cost of fertiliser also. Manure cost was worth Rs. 37,840. The group, consisting of 52 women members, was formed on 5th April, 2005. Since last twenty years the members were earning their wage through Tasar rearing, reeling etc. on individual basis. Now, working in group mode, these tribal people are empowered to earn their livelihood in a better way reducing the seasonal and forceful migration.

- (b) Introduction of mechanised reeling and spinning:- Weaving is the largest non-farm activity of Bankura district. There are two types of weaving activities prevailing in this district:- (i) cotton fabrics made out of coarse yarn and silk & (ii) Tasar fabrics, which are made out of finer count of mulberry silk and Tassar silk yarn. Weaving, in general, is a family activity, in which a good number of women are attached.

It is roughly estimated that around 2500 to 3000 women living in Bishnupur, Sonamukhi, Changdoba and Birsingh etc. areas are engaged in Tassar yam reeling & spinning through traditional thigh reeling method, which is very disgraceful for women as well as

hazardous. Yet they have been compelled to do so to manage their livelihood.

Recently Central Silk Board has developed mechanised reeling & spinning device with a view to improve productivity of each spinner and to protect their self-respect at their working place. Under RSVY, a special intervention programme for skill-development on Tasar reeling and spinning was organised by Khadi & Village Industries Board and Directorate of Sericulture at Kurampur (Bhatpara) under Sonamukhi block during 2005-'06 in which 24 numbers of women were imparted training for two months on mechanised reeling and spinnings. During training these women formed two self-help groups, deposited a portion of their earning in the bank account of the group and decided to carry on reeling activities as an additional source of income. All the participants developed operational skill during training and quality of tasar yarn improved considerably. Efforts are on to impart training to more women engaged in thigh reeling and spinning through traditional means.

2.5.9 Khadi, Village & Small Scale industries :

This chapter basically describes the status of Rural Non-Farm Sector (RNFS) activities in the district. The observations are based on the information available with the District Industries Centre, Khadi & Village Industries Board (KVIB), other concerned Government Departments, Banks, resources & activity maps available from Natural Resource Data Management System (NRDMS) Centre, Bankura. Assesment of the status is also based on the observations made during the field-visits and sample survey conducted in selected blocks, villages & clusters of the district.

No authentic data is available regarding distribution of the work-force in different activities in the RNFS. However, on discussion with various agencies, the approximate numbers of people engaged in various types of activities were collected in 2002 and are indicated in the Table 2.5.28.

Table 2.5.28 Major rural non-farm sector activities in Bankura and number of people employed

Sl. No.	Activity	No. of people employed	Percent of total workers
1	Brass and bell metal-based product (utensil making)	5900	2.5
2	Dokra (decorative items made of brass & bell metal)	300	0.130
3	Conch shell products	2500	1.06
4	Terracotta	2300	1.00
5	Wood carving	300	0.13
6	Stone crushing	300	0.13
7	Fishing hook	2500	1.06
8	Baluchari saree making	2000	0.85
9	Other handloom activities	33000	14.02
10	Stone carving	200	0.08
11	Roof tiles making	500	0.25

Source: Survey conducted by NABARD in 2002

2.5.9.1 RNFS activities in Bankura :

The table 2.5.29 shows the categories of RNFS activities identified in Bankura district.

Development of cottage and small-scale industries can be an important means to achieve rural development by increasing the off-farm activities for income generation of rural poor. It has been realised that along with development of agriculture, non-farm enterprises

should also be promoted to alleviate poverty. Development of non-farm enterprises, like handloom, sericulture, khadi and village industries and lac development are some of the areas of intervention envisaged in Bankura district. Handloom is an important non-farm livelihood activity to increase the income of the poor people in rural areas. The district is famous for its distinctive weaving style.

Table 2.5.29 Rural non-farm sector activities in Bankura

Sl. No.	Category	Activities
1	Agro-based	Processing of agricultural products viz., rice-mill, oil-mill, small paddy processing units (Bhatchati), potato chips making, date palm & palmyra palm based activities etc.
2	Leather-based	Processing of leather and shoe-making
3	Iron-based	Blacksmithing, manufacturing, implements and fabrication of doors,grills, gates, fishing hook making, lantern making etc.
4	Forest-based	Making of cups & plates from Sal leaves, extraction and processing of oil from Neem & Mahua seeds (forest products), Babui craft, cane & bamboo craft, wooden item making, Babui grass rope making, lac rearing & lac processing, lac-based product making
5	Mineral based	Ceramic units china clay, quartz grinding & washing
6	Non-metallic based	Brick manufacturing, stone crushing, tiles manufacturing, pottery
7	Metal-based	Domestic utensils making (Bell metal /Brass), Dokra handicrafts
8	Food products	Bakery, wheat-flour grinding, fruits & vegetables processing & preservation
9	Paper products	Printing, book binding, exercise book (khata) making
10	Rubber & plastic products	Tyre retreading, coke briquettes making PVC & Haldia downstream projects
11	Other village & cottage industries	Terra-cotta (renowned in Bankura), conchshell products, handlooms viz., Baluchari silk, Sonamukhi silk making, incense stick making, soap making, Bel Mala making
12	Transport	Different modes of transport used for passengers, goods and tourists, both in the private and public sector. In the private sector, major items of transport are truck, bus, trekker, taxi & auto-rickshaw.
13	Tourism	Hotels & restaurants in Bankura, Bishnupur, Joyrambati and Mukutmonipur.
14	Service Sector	Medical practitioners, tailors, construction workers, photocopy machine shop, STD booths etc.

Source: Survey conducted by NABARD in 2002

Major activity clusters :

Major activity clusters in different RNFS activities in the district are handicrafts, handlooms, rice mill, oil mill and other SSI units like bell metal processing, stone crushing, tiles making, terra-cotta, Dokra, etc. Against the total number of main workers to the extent of 921591 (as per 1991 census), the workers engaged in Rural Non-Farm Sector were 235320 i.e. constituting about 25.53 percent of the total main work force. Whereas in the context of women work force in the district, their participation in RNFS activities was about 3.26 percent. In case of male workers engaged in RNFS activities, this percentage was 22.27 percent.

The participation of women is more in the traditional handicrafts and handlooms sector which are mainly household based. Slightly bigger SSI units, service sector activities have a concentration of male work force only. Traditional handicrafts sectors are mostly wage dependent.

2.5.9.2 Pottery in Bankura :

The incomparable excellence of Bankura potters is now well-known all over the country. In the distant past, this craft-based industry had developed in rural areas to meet the requirements of their local clients, a significant portion of which are rural poor. The art

Table 2.5.30 Block-wise distribution of pottery artisans together with their household labour-use pattern and product range

Block	Product category	Number of household engaged in the craft (with percentage of total)	Average number of household labour engaged in each unit			Average number of hired labour engaged in each unit
			Male	Female	Child	
Saltora	A	70 (2.2)	2	×	×	5
	C	120 (3.7)	3	2	×	×
Taldangra	B	122 (3.8)	3	1	×	×
Raipur	A	128 (4)	2	1	×	×
Sarenga	A	127 (4.0)	3	1	×	×
Ranibandh	A	285 (8.9)	1	1	1	×
Bankura-I	B	115 (3.6)	3	2	×	×
Bankura-II	B	63 (2)	2	2	1	×
Khatra	A	45 (1.4)	2	×	×	×
Hirbandh	B	95 (3.0)	2	×	×	×
Sonamukhi	B	76 (2.4)	2	1	×	×
Patrasayer	A	225 (7.1)	2	1	1	×
Indus	A	166 (5.2)	1	1	1	×
Kotulpur	A	137 (4.3)	2	1	×	×
Joypur	B	160 (5.0)	2	1	1	×
Bishnuur	A	135 (4.2)	3	×	×	×
Indpur	A	144 (4.5)	2	1	1	×
Onda	A	234 (7.3)	2	2	×	×
Chhatna	A	212 (6.6)	2	1	1	×
Gangajalghati	A	65 (2.0)	2	1	1	×
Mejia	A	116 (3.6)	2	1	×	×
Barjora	A	160 (5.0)	2	2	×	×
Simlupal	A & C	20 (0.6)	2	×	×	4
Total number of households		3200 (100)				

A – Aomestic utility items

B – Terracotta products for decorative & religious use and mixed items

C – Heavy pottery items like tiles, well-rings etc.

Source: Survey conducted by NABARD in 2002

of making terracotta figurine falls under the potter's craft. In ancient India, pottery was recognised as one of the eighteen industries. Though it is mainly a family-based cottage industry, there are evidences of making pottery in large scale in ancient India. In between 200 BC and 50 AD, unprecedented growth of this industry and trade took place with the progress of urbanisation. The growing demand lasted upto the Gupta period (300-600 AD) and thereafter a slow decay was perceptible. However, the art of terracotta panels for temple decoration flourished in the Pala period and reached a high level of excellence. After a rather long gap, terracotta plaques carved with beautiful figures began to re-appear to decorate the temples erected under the impulses of Vaishnavism in sixteenth and seventeenth centuries. The figures on the terracotta plaques of seventeenth century temples presented in low relief and profile manner resemble more to the art of wood-carving than to the art of potters. Now the potters of Bankura have engaged themselves in making curio articles and images of Gods and Goddesses for religious and decorative use. The famous wheel-thrown terracotta horse of Bankura potters is now a legend for its virile design evolved out of sheer imagination.

According to the soil-distribution map of the

Department of Agriculture, West Bengal, the clay of major areas of concentration of potters in this district belongs mainly to the group of red soil sandy loam and sandy clay loam. In the absence of enough diversification of this industry, a large number of the artisans, particularly the less affluent ones, continue to produce the traditional household items serving the poorest section of the rural populace. The relatively high-prices terracotta products find their market amongst the urban population. Unfortunately, however, the demand for these products in the urban market is now on the decline, specially because of the fragile nature of the items. They are being replaced by imitations in metal, wooden and stone-made products. Lack of suitable technological-institutional innovations including market promotion activities is further limiting the market for potters' terracotta products.

A section of the potters are successfully fabricating roofing tiles for rural housing, which are sold to semi-urban areas of Bankura and adjoining areas of Purulia and Bihar. This group of artisans underwent diversification from traditional products quite some time ago in view of the high demand for rural housing and also because the characteristics of clay in this region made this diversification attempt possible through commercial production of such items.

Table 2.5.31 Blockwise distribution of product range of pottery

Utility item	Block	Products
Domestic utilities	Indpur, Gangajalghati, Ranibandh, Khatra, Hirbandh, Sonamukhi, Indus, Mejia, Raipur, Sarenga, Onda, Saltora, Chhatna, Joypur, Bankura-I, Bankura-II, Taldangra, Simlapal, Barjora, Bishnupur, Patrasayer	Kalsi, Hari (cooking utensils) pitcher, water container, glass, pot, and other domestic utilities
Terracota & other decorative items	Taldangra, Sonamukhi, Sarenga, Bankura-I, Bankura-II	Horses, elephant, flower vase, Mansa Saj, ash-tray, Ox, Tiger & other items of religious use
Roofing tiles & other heavy pottery items	Saltora, Simlapal	Roofing tiles, well-rings

Source:- Survey conducted by NABARD in 2002

Normally clay is collected by the artisans themselves from the nearby fields free of cost. Only the transport charge for each clay load is paid out of pocket. But the tile-making potters, who have a large scale of commercial operation, almost invariably purchase clay from the local suppliers. The producers of household utility items and terracotta items do not use any

machine for processing of clay. The affluent tile-makers, however, use power-driven and hand-driven pugging mill for mixing and processing. Coal is used as the major fuel for firing the tiles and is purchased from the open market.

It is seen nowadays that clay is not readily available to the potters. In Panchmura, which is famous for

terracotta horses, the artisans are finding it difficult to identify unused patches where they can extract the clay (which is normally collected from seven metres depth). The price of land has also shot up due to increase in demand.

2.5.9.3 Handloom industry :

This is a very important sector for Bankura since this engages largest number of persons in the non-farm sector. The condition of the weavers is very precarious. They have been using coarser yarn where return is less.

In handloom sector, training on diversified production and familiarisation with sophisticated products of state has been undertaken recently under Rashtriya Sam Vikas Yojana with the objective of upgradation of the skill of the weavers who are habituated in production of traditional items of coarser count of yarn like bed-sheet, bed-cover, door-screen, napkins etc. The objective is diversification of their products with finer count of yarn which has greater marketability. Special emphasis has been laid on Indpur and Gangajalghati blocks of the district where traditional weavers are living.

Table 2.5.32 Particulars of handloom production in 2004-2005

Sl. No.	Name of the Block / Municipality	No. of Looms	Total handloom production (in Rs.)	Cost of production (in Rs.)	Wages paid (in Rs.)
1	Bankura-I	762	6700000	3500000	2200000
2	Bankura-II	686	5430000	2800000	1800000
3	Chhatna	1112	8600000	4380000	2920000
4	Mehia	169	100000	52000	33000
5	Gangajalghati	427	4300000	2193000	1452000
6	Barjora	256	2000000	1020000	680000
7	Saltora	127	820000	410000	350000
8	Onda	749	7400000	3850000	2550000
9	Taldangra	395	12200000	6240000	4140000
10	Simlapal	507	4600000	3162000	2108000
11	Khatra I	404	3200000	1632000	1088000
12	Hirbandh	407	2300000	1173000	782000
13	Raipur I	251	800000	450000	330000
14	Sarenga	305	1400000	680000	400000
15	Indpur	1665	12300000	6290000	4449000
16	Ranibandh	177	400000	195000	135000
17	Bishnupur Block (Silk)	154	1400000	680000	400000
18	Joypur	575	2800000	1400000	520000
19	Katulpur	508	3600000	1835000	1225000
20	Indus	339	1560000	796000	530000
21	Patrasayer (Silk)	546	2030000	1036000	690000
22	Sonamukhi Block (Silk)	79	800000	408000	272000
23	Bankura Municipality	2126	7700000	3927000	2618000
24	Bishnupur Municipality	1220	16000000	8160000	5440000
25	Sonamukhi Municipality	527	13400000	9600000	5800000
	Total	14473	121840000	65869000	42912000

Source: Handloom Development Officer, Bankura

Improvement in weaving technique and use of fine yarn

Steps for skill upgradation in weaving and use of fine yarn had been taken up in recent years under RSVY. In the programme, participants were selected for the training from the self-help groups (SHG). The Handloom Department sought support from the Gram-Panchayat and the non-governmental organisations (NGO) for primarily identifying the SHGs. The Handloom Development Officer and other officials then selected the trainees from the groups who were already engaged in this kind of activity. Capacity building of the weavers was taken up first and the trainees were then given inputs like two looms, thread etc. Linkages had also been made with the banks, co-operatives, marketing agencies like Tantuja, Tantushri etc.

These groups are now very much willing in regeneration of assets and marketing channel. They are also involved in the decision-making and planning processes. So far 400 persons have been trained, out of which about 40 percent are women. The quality of the products has also changed substantially and they are now weaving finer products like bed-sheet, bed-cover, napkin, shirting etc.



2.5.19 Women group engaged in handloom activity

Baluchari :

Background:

In the history of textile in Bengal, Baluchari came much after Muslin. Two hundred years ago Baluchari was used to be practised in a small village called Baluchar in Murshidabad district, from where it got the name Baluchari. In the eighteenth century, Murshidkuli Khan, Nawab of Bengal patronized its rich weaving tradition and Baluchari flourished from that time onwards. But this flourishing trend later declined, specially during British rule, due to political and financial reasons and it became a dying craft as most of the weavers were compelled to give up the profession.

Later in the first half of twentieth century, Subho Thakur, a famous artist, felt the need of recultivating the rich tradition of Baluchari craft. Though Bishnupur was always famous for its silk, he invited Akshay Kumar Das, a master weaver of Bishnupur to his center to learn the technique of jacquard weaving. Sri Das then went back to Bishnupur and worked hard to weave Baluchari on their looms.

Once Bishnupur was the capital of Malla dynasty and different kinds of crafts flourished during their period under the patronage of Malla kings. Temples made of

terracotta bricks were one achievement of these rulers. A major influence of these temples can be seen in Baluchari sarees. Mythological stories taken from the walls of temples and woven on Baluchari sarees, is a common feature in Bishnupur.

Market & profit:

Baluchari has a wide market in big cities like Kolkata, Delhi, Mumbai, Bangalore etc. It also has a very good market in various cities of West Bengal. But in the marketing process, the 'Mahajans' play the role of middlemen between the weavers and the customers and the margin of profit of the weavers is eaten away.

Normally one weaver can prepare four to five sarees in a month and gets about Rs.1000/- if he possesses a loom of his own, but gets between Rs. 450/- to Rs. 500/- per saree in case he does not weave on his own loom.

Other issues:

Women of the weaver families take part in the process, specially in yarn processing. In some cases they weave materials like shawl etc. Other items whereas weaving of saree is exclusively done by men.

As women twist the thread from cocoon on their thigh, it poses serious health-hazard to them. Also as the

weavers work with very fine designs under insufficient light, which is strenuous for their eyes and their eyesight gets lost at their old age. Also most of them face the problem of abdominal pain. Even children are involved in feeding the yarn.

Problems & prospect:

Most of the weavers are poor and face the problem of capital, a factor that gives inroad to the middlemen who take a major share of the profit. Sampling and categorisation system of the Baluchari products are not done and also no proper record of their previous works are maintained. Product diversification in the form of design and variation in colour shades is a need of the hour for the Baluchari.

Of late, the market of Baluchari has started declining due to repetition of same design and non-standardization of colour. One design sometimes costs as high as Rs.40,000/-. Young girls are involved in making the jacquard and the work-conditions are pathetic. The cost prompts the weaver to keep on using it as long as possible (sometimes as long as seven years). This has resulted into repetitive design. An effort is being made under RSVY scheme to use computer-aided design (CAD) for the weavers. The weavers are illiterate and are exploited by Mahajans even in calculations of the adjustment of advance money that they deposit with Mahajan for procurement of yarn etc. on their behalf. Therefore, literacy drive is likely to be helpful in ameliorating their hardship.

2.5.9.4 Lac development :

Lac is a product of commercial value from which resin, dye and wax can be obtained. It is derived from a specialised group of insects known as lac insects. The lac insect secretes a resinous covering for protecting itself and its young ones. For its survival it depends on certain plants called as lac hosts. It derives its nutrition by sucking the juices of these host plants. Lac culture is the process of culturing these insects on host plants to obtain lac. Only certain species of lac insect are useful for producing lac resinous covering and *KERRIA LACCA* is the type commonly used in our country. Abundance of Palash trees (lac host) in this district has become helpful in lac development, in which pruning operation is required to remove unsuitable shoots of host plant to ensure putting forth of new good, healthy and large number of succulent shoots for lac insect settlement.

One of the major constraints in lac cultivation is the non-availability of broodlac at proper time and at the reasonable rate within affordable limit of the poor cultivators. In consideration of the facts, lac cultivation work was undertaken in a special manner during June-July, 2005 season, giving due attention to the seasonal operation, viz. pruning, selection of broodlac, brood binding, inoculation etc. As such 30.16 quintals of Ranginee variety broodlac was produced and inoculation operation was effected on 6010 number of pruned host trees.

2.5.9.5 DOKRA- the traditional art of metal casting :

Brass metal craft, a migratory craft in the late medieval period emerged as the second largest industry of undivided Bengal in the late nineteenth century. The craft had its origin in Dhalbhum of Singhbhum area and has entered Bengal through Purulia-Bankura-Midnapur trail, which was the exit route of metal to the copper port of Tamralipta. The utensils made of copper-based alloys had its early growth in the western part of Bengal. With the rapid growth in the early eighteenth century, there emerged a sub-caste of Karmakar named Kansari. Kansaris were later subdivided into various small groups like Dokra-Kamar, Ghatra-Kamar etc.

The Dokra Kamars of Bengal migrated from Chhatishgarh. The proximity of this region to the copper source and easier trade-link with market transformed their migratory character to settle in groups in different parts of Bengal. But the craft did not expand and remained in the periphery of artisan activities.



2.5.20 Heated mould prepared for production of DOKRA crafts

Cire Pur Due, a French term meaning lost wax, is the name given to method of Dokra casting. Many of the world's famous statues have been made through this process.

The earliest bronze figure of a dancing girl, which was unearthed in the buried city of Mohen-jo-daro, shows the high degree of skill attained in this art.

There are two traditions of castings. Once is the lost-

wax solid casting and the other is the lost-wax hollow casting. Both traditions are practiced in Bankura.

Pure bee wax, dammer resin and mustard oil etc are used in the preparation of mouldable wax. Coating of wax is applied on the surface of the master mould, but in case of hollow casting the master mould is made out of clay. The wax-coated model thus covered with clay and a slit is provided for draining out liquid wax after heating.

The Dokra artisans of Bankura District have been pursuing this occupation for over 50 years based on their inherited skill. The traditional mode of production lacks flexibility in production, suffers from low productivity and high cost of input raw materials. This has resulted limitation in marketing of Dokra products beyond a geographical area restricted mostly within the state. Generation of gainful employment in the trade is possible only through extending the scope of marketing. However, extension of market of Dokra items calls for introduction of flexibility in the

production technique, improvement in quality and increase in productivity. All such requirements could be met through blending new innovation in the traditional production stages. During last 10-15 years, initiative have been taken by various government and semi-government agencies like Council of Scientific & Industrial Research, Khadi & Village Industries Commission etc. to provide technological inputs to the Dokra artisans of Bikna village, for their skill development and increase in productivity.

It is interesting to note that during last few years some young artisans of Ghatra Kamar community (utensil-maker) have adopted the skill of Dokra crafts and have engaged themselves in commercial production of Dokra items. As a result the traditional Dokra crafts of Bankura has spread outside Bikna village & small clusters of Dokra artisans are coming up at Patrasayer, Molian, Bangopalpur, Kesiakole with the support of various government and semi-government agencies. Under RSVY, the product diversification has been taken up and the results are very satisfactory.

“Moon appears behind the cloud” — a success story of Jyotsna Hanri

Jyotsna Hanri, daughter of Ajit and Asha Hanri, is a resident of village Molian under Hirbandh block. She is a 26 years old destitute woman struggling to establish herself in the society. When she was six years old, her parent arranged her marriage as per existing social norm. But she had to left her husband’s house after 6-7 years of her marriage due to severe physical and mental torture by her in-laws. After that she returned to her father’s house and started working with the local mason as Kamin (women laborer) to earn her daily livelihood. During this period she engaged herself in fishing-hook making like other local women. When she was twenty, she went to Bishnupur to undergo a short-term training on metal crafts organised by National Institute of Science, Technology & Development Studies (NISTAD). After returning from training she did not find any opportunity in craft-work. Again she started working as a maidservant at Molian. But she continued her passion of craft-work with metals. Later she came to the notice of the Khadi and Village Industries Board (KVIB) and they appreciated her work. KVIB arranged training for the women of the village and formed a self-help group named Matangini Hazra Mahila Swambhar Gosthi with ten female members. She became the team-leader of the group. The KVIB facilitated the process of Dokra craft work with financial help through RSVY and installed women-friendly furnace (costing Rs. 7200/-), better raw-materials of alloy metals and formed a workshop to develop this art. The group has diversified its activity into various types of ornaments, mementos, few other framed products that are highly appreciated by all corners with an increasing demand. The training period continued for four month with twenty days in a month. Jyostna today earns Rs. 1800/-to Rs. 2000/- per month by producing and selling the crafts to the wholesalers and in open market.



2.5.21 Finishing touch given to DOKRA products

In India, palm-based activities are about 4000 years old and pursued as an essential traditional village industry. Traditionally a good number of people depend on these two activities, which is based on existing natural resources, but a major portion of the resources lie untapped and unextracted. Also due to factors like lack of awareness, use of traditional methodology without using modern technology, market inaccessibility, the activities based on these resources, which have immense potentiality, have remained dormant. Under RSVY, steps have been taken for skill development in date palm and palmyra palm-based activities with the objective of creating sustainable employment opportunities through value addition and product diversification.

The physical target of the schemes undertaken under RSVY was to set up 325 numbers of household units of date palm and palmyra palm in seven blocks so that employment opportunities are created for 200-220 days each year and migration and poverty is reduced. Starting from March, 2005, training programmes of forty batches have been completed, the participants of which are engaged in the activities, which have provided scope of their additional income during lean season.

Recently training programme for palm fibre separation and brush-making from the fibres has been completed, which will further diversify the activities and enhance scope of income generation.

2.5.9.6 Date palm and palmyra palm based activities :

Table 2.5.33 Outcome of date palm and palmyra palm based activities (during training programme)

Juice collected	434054 litres
Value of products produced	Rs. 12,74,571.00
Average income of tapper and other associates	Rs. 55.00 to Rs. 75.00 per day for 170 days in two seasons of the year

Source: District Officer, KVIB, Bankura



2.5.22 'Neera' collection by tree trapping

Lakshimiram Hansda, polio effected youth (aged 28 years) of Suilibona Gram-panchayat under Chhatna block has been associated with the palmyra tapping, collection of juice ('neera'), production of Gur, syrup, candy etc. since last summer. He is one of the group members of Atmadeep Foundation Swambhar Gosthi (an eleven member group). Earlier he used to cultivate paddy and vegetables in his four bighas of land after the demise of his father at his eight years of age. He has to take the responsibility of his family members that hindered him to carry out his education beyond eighth standard. As erratic rainfall prevails in the district, the return from agriculture did not suffice; hence he had to migrate to east (Burdwan district) on a regular basis. Now after getting involved into the new initiative, Lakshiram is able to sustain his family with an additional income of Rs. 55 a day (on an average) for 90 days through selling of this produce. His whole family is happy as he is engaged locally to ensure the livelihood of the family and could avoid migration. Non-recurring materials like tray, bowl, chemicals etc. along with technical support was provided to the group by the district KVIB towards achieving this success, which was not in practice since years.

2.5.10 Conclusion :

A large number of resource based livelihood options have been discussed above for illustration. Examples have been picked up from different sectors to capture the employment generation potential in this district. It is a fact that if properly implemented, these livelihood interventions have tremendous impact on quality of life. One may, however, note that this has to be implemented in a participatory mode. In addition it is not just sufficient to provide inputs. It is equally important to build village level institutions to sustain the effort and take it forward. The discussion which follows describes it in more details.

2.6 Building Community-Based Organisations

The benefits of participatory approach for poverty reduction strategy for enhancing quality of life are well known. Peoples' participation is a must if we want to bring in sustainability in the developmental interventions. On the other hand, inclusive growth on social, economic and political front is possible only if community-based organisations (CBO) constituting vulnerable sections of society are acknowledged and involved in conceptualisation and implementation of schemes. Thus formation and strengthening of community-based organisations is essential to accelerate the process of human development. They become the vehicle of growth and provide a conduit to enhance access to the social and economic services. These organisations bring in cohesion in community, which is a pre-condition for success of any intervention. In Bankura an attempt is being made to build and strengthen these organisations. Some examples have been picked up as illustrations.

Various community based organisations have been discussed here in context of this district. Most of them have been an outcome of the implementation of various schemes. It may be remembered that there are other traditional village institutions in Bankura (viz. Solo Ana Committee) including institutions in tribal societies. These can be nurtured and involved in the process of development in a big way.

2.6.1 Watershed Development Committee

Considering the geo-physical characteristics of Bankura in general, and its soil-morphology and soil structure,

intensity of rainfall, undulating character of land, cropping pattern, extent of degradation of forest areas etc., in particular, approach of development in this district is based on micro-watershed. All activities in a micro-watershed is executed through watershed development committee.

a. Formation

Initially a group of 20-30 representatives from the community, preferably comprised of equal numbers of men and women across various age-group and maintaining neighbourhood representative criteria are selected to carry on the participatory exercises. Community opinion leaders like the respected persons, teachers, social workers, Panchayat representatives, Government representatives etc. from the community are taken as group-members and are termed as 'key informants' who gather and generate information on different socio-economic dimensions of the villages, resource-potential, existing practices, etc. in the watershed area.

Table 2.6.1 Block-wise number of micro-watershed project taken up under Rashtriya Sam Vikas Yojana

Block	Number of micro-watershed project
Sonamukhi	1
Borjora	4
Raipur	2
Khatra	3
Chhatna	5
Hirbandh	1
Ranibandh	2
Sarenga	1
Gangajalghati	1
Mejia	2
Bankura-I	9
Saltora	7
Indpur	2
Total	40

Source: Office of the District Magistrate, Bankura

To institutionalize the whole thing, one Watershed Association (WA) and one Watershed Development Committee (WDC) are formed at the watershed level. Watershed Association is formed with one representative from each of the families directly or indirectly dependent on or benefitted from the watershed area. The Watershed Association oversees the formulation of micro-plan, review the progress of works, approve the statement of accounts, oversee formation of self-help

groups (SHG) and users' groups and constitute and reconstitute watershed development committee, which is the executive body of the watershed association. Since every household is represented in the Watershed Association, it cuts across all sections of society and, therefore, is expected to be the best representative.

The WDC is formed with the members as mentioned in

table 2.6.2. If the members of SHGs or users' groups are more than four and five respectively, representatives of SHGs and users' groups are selected by rotation. The WDC has at least 4-5 women members and it is also ensured that scheduled caste and scheduled tribe communities are adequately represented. So far 18 WDC have been formed in the district.

Table 2.6.2 Structure of Watershed Development Committee

1	President of the Watershed Association	President
2	Secretary of the Watershed Association	Secretary
3	Four representatives of self-help groups (SHG)	Member
4	Five representative of users' groups	Member
5	Elected members of Gram-Panchayat constituencies falling, fully or partly, within the micro-watershed area	Member
6	Two representatives of the block-level core committee looking after the programme	Member

Source:- Office of the District Magistrate, Bankura

b. Flow of fund

Fund is released in favour of Watershed Development Committee through account payee cheque to be credited to its bank account. Subject to the overall supervision and control of the WA, the day-to-day activities of the watershed development project are carried out by the watershed development committee. No fund is with-

drawn from bank unless a resolution of WDC to that effect is taken. So far as execution of any watershed development scheme is concerned, the WDC undertakes the task of procurement of materials, arrangement for supply of labour, selection of job-worker etc. The committee takes into account the technical suggestions of the respective departmental officers.

Watershed development programme at Saltora – a case study

In Bankura, several scattered hamlets (villages) constitute a micro-watershed. At the very beginning, hamlet committees are formed for each hamlet involving those who are dynamic and found committed during plan-preparation. Each hamlet committee identify one member to represent in the watershed development committee. Out of nine members of the committee, four are women. WDC and hamlet committees convene separate meeting every fortnight to discuss the implementation process. They have their own documented rules and regulations and maintain registers like resolution-register, cash-book, muster roll etc. The committee maintains accounts as per their norms. Every hamlet committee has selected a 'job worker' on wage basis. Job-worker maintains all measurements, perform cash transactions and submits utilisation certificate to the Secretary of the WDC. They have been trained to take the measurement of the activities and to keep accounts. The Secretary of WDC collects list for the activities in advance from the job-worker and gets money



2.6.2 Meeting of the hamlet committee going on



2.6.1 Delineation of watershed going on

drawn from bank unless a resolution of WDC to that effect is taken. So far as execution of any watershed development scheme is concerned, the WDC undertakes the task of procurement of materials, arrangement for supply of labour, selection of job-worker etc. The committee takes into account the technical suggestions of the respective departmental officers.

through withdrawal slip from bank, where Block Core Committee member is a co-signatory. The WDC has opened an account at the bank for financial transactions for the watershed. Block core committee has been formed with two representatives of the Block, one is Block Fisheries Extension Officer and another is Sub-Assistant Engineer.

Exposure tour of the communities to a nearby developed watershed at Purulia also had a significant contribution in achieving the desired result.

Entry point activity

Women were vocal to stress on their needs and aspirations expected from the watershed. During the meetings held in the villages, the women in particular stressed on the need of night-school, as most of them are illiterate and not even able to sign their names. Seven numbers of such night-schools were established as an entry-point activity. Black board, pencils, slates, kerosene, lamps etc. were provided to run the school. An overwhelming response was seen from the women, especially the elders one. About 10-15 students attended their class in each school.



2.6.3 Night school taken as entry-point activity

Table 2.6.3 Block-wise number of SGSY groups

Sl. No.	Name of the Block	Number of SGSY groups	Number of groups who have passed Grade-I	Number of groups who have passed Grade-II	Number of credit-linked groups
1	Bankura-I	433	149	19	1
2	Bankura-II	303	422	41	0
3	Barjora	131	28	4	2
4	Chhatna	581	417	65	0
5	Onda	378	255	33	8
6	Mejhia	140	127	13	0
7	Gangajalghati	177	44	8	0
8	Saltora	110	37	4	2
9	Sonamukhi	448	228	24	5
10	Kotulpur	133	52	2	1
11	Joypur	195	108	8	0
12	Bishnupur	197	127	20	3
13	Patrasayer	182	93	45	9
14	Indus	144	21	3	0
15	Khatra	426	290	54	15
16	Sarenga	655	392	24	3
17	Hirbandh	155	26	0	0
18	Ranibandh	596	441	49	15
19	Indpur	353	184	26	0
20	Taldangra	280	146	16	0
21	Simlapal	456	170	32	23
22	Raipur	467	189	0	0
Total		6940	3946	490	87

Source:- Project Director, District Rural Development Agency, Bankura

2.6.2 Self-help group & Swyamsiddha group

The Self-help group movement in the district has gathered momentum. Various agencies are involved in formation and nurturing of self-help groups (SHG). Under the Swarnajayanti Gram Swarojgar Yojana (SGSY), the District Rural Development Cell (DRDC)

of Bankura Zilla Parishad is involved in the promotion of SGSY groups. Till the end of financial year 2005-'06, 6940 groups have been formed out of which 3946 groups have so far reached grade-I stage. Normally 10-15 members from same locality form a group and start the process of saving. A picture of formation of block-wise SGSY groups is shown in Table 2.6.3.

Table 2.6.4 Activities of Swyamsiddha Groups in Bankura (upto 31/3/2006)

Sl. No.	Subject	Achievement
1	Number of surviving Indira Mahila Yojana (IMY) SHGs	1372
2	New SHGs formed	1845
3	Total number of SHGs	3217
4	Number of villages covered	3315
5	SHG members	41632
6	SHGs doing savings	3024
7	SHGs doing interloaning	2064
8	SHGs having bank account	2998
9	SHGs availing loan from bank	899
10	SHGs taking up income generating activities	2925
11	Number of SHGs given training on income generating activities	1750
12	Clusters formed	55
13	SHGs grouped into clusters	539
14	Block societies formed	22
15	SHGs trained on social issues	1972
16	Total amount saved	Rs. 2,14,62,874
17	Total amount loaned	Rs. 95,73,124
18	Total amount deposited in bank	Rs. 1,61,47,977

Source:- Office of the District Programme Officer, ICDS, Bankura

As can be seen some of the blocks like Saltora have been lagging behind. There are some blocks where presence of an active non-governmental organization (NGO) has been very helpful in formation of groups. The Social Welfare Department of the Government of West Bengal is similarly involved in forming Swyamsiddha groups. The details of the Swyamsiddha groups formed so far are indicated in Table 2.6.4.

Most of the groups have started interloaning with their deposited money and utilising the fund in the individual capacity to bring additional income.

This is a centrally-sponsored programme for empowering women, socially and economically, through formation and mobilisation of SHGs. The scheme is being implemented in four districts of this state, out of which Bankura is one. The project is being implemented at the block-level through the ICDS network in which

the anganwadi workers act as facilitators for the formation of SHGs.

In addition, NABARD has formed 3344 numbers of SHGs and the Bankura Central Co-operative Bank has formed 8761 numbers of SHGs till July, 2006.

It is seen that many of the SHGs have not gone for credit-linkage and have mostly relied on cash-credit account or their common savings to take loan for micro-enterprises. In fact, marketing is the missing link, which needs attention. Some of the Swyamsiddha groups have taken up mid-day meal cooking in Primary Schools. In some of the schools this has been completely outsourced to the group, but in some others, teachers are still involved. Women have been really empowered in the former arrangement and efforts are on to apply the same across all Schools. Similarly in the ICDS centres, Swyamsiddha groups

are now being involved to supply vegetables and eggs. In Sarenga block, Swyamsiddha groups have been involved in paddy-to-rice making and supplying it to

the ICDS centres. The quality of rice has been remarkable and the overall costs and overheads have also been less.

Case studies

1. Sal plate making in Ranibandh block

This is a case where a technological input may enhance the income of a self-help group. South Bankura is full of Sal plantation and almost every family, a major share of them from tribal community, is making sal plate.

Ranibandh, a block having more than 50 percent tribal population, is situated far from district headquarters. More than 50 percent of this Block is forest land and SHGs comprising with scheduled caste (SC) and scheduled tribe (ST) people live in forest fringe areas and depend on minor forest produce (MFP), since the nature of the soil is barren and unfertile for agriculture and the irrigation facility is also poor.

Table 2.6.5 Self-help groups involved in Sal plate making activity at Ranibandh

Name of the self-help group	Number of members
Laledi Mahila SHG	16
Punshya Mahila SHG	15
Barpal Mahila SHG	12
Mithyam Mahila SHG	15
Bardanga Mahila SHG	19
Bheduasole Dompura SHG	13
Bheduasole Marangburu Swanirbhar Dal	13
Jabla Ma Kali Swanirbhar Dal	10
Jabla Ma Durga Swanirbhar Dal	17
Basdiha Karmakarpara SHG	10

Source:- Project Director, District Rural Development Agency, Bankura

The matter of providing suitable intervention on Sal leaves was considered necessary at the first stage in the villages like Laledi, Punshya, Mithyam, Barpal, Bardanga and others where SC and ST concentration is very high. Thorough discussion was made with the women SHGs who collect Sal leaves, get it semi-dried in open air and then traditionally tie the leaves with neem-stick to give it a shape of improvised Sal Thali (plate) and sell it to the local vendor, who visits their villages for purchasing those plates at regular intervals at a rate of Rs. 5-7/- per hundred 'thali'.

It was learnt that the Indian Institute of Technology (IIT), Kharagpur has designed a biomass fuel operated Sal plate and bowl moulding machine, which does not require electricity for making moulded Sal plate and bowls.

Women from ten SHGs were then selected by Ranibandh Panchayat Samity for training and a five days training was organised with the master trainers provided by IIT, Kharagpur for preparation of moulded sal plates and bowls.

After successful completion of training, each SHG was provided with one such Sal plate moulding machine and one sewing machine. In the meantime, it has been experienced that the poor SC/ST people do not have adequate space in their respective houses and as such, one workshop with low-cost design was thought of and subsequently provided. Ranibandh Panchayat Samity entrusted the SHG to

construct their own workshed and they have set up the workshed in right earnest and enthusiasm (even with pucca roof-top by their own labour and savings). With the completion of workshed and starting of preparation of Sal plate and bowl by the group members, the SHGs are now getting Rs.22/- per hundred moulded Sal plate as against Rs. 7/- per hundred Sal plate, which they used to earn previously. The members of the SHGs informed the villagers that they are exploring local market in the neighboring villages where marriage ceremony or other ceremony takes place and has the demand of such moulded plate. The SHG members are now concentrating to explore the marketability of such moulded plate outside Ranibandh and for that purpose, they have selected two SHGs amongst themselves who would act as marketing groups. Ranibandh Panchayat Samity has also extended its co-operation and is going to provide them a space in the marketing complex at Ranibandh Bazar, from where the marketing group intends to operate.

2. Goatary at Chichinga under Indas Block

Eleven number of youths, all of them belonging to poor families formed Chichinga Milan Goshthi on 30.07.2002 and opened a bank account with Mallabhum Gramin Bank, Indus branch.

Once the group became stable, the group-members intended to take up a joint venture of goatary activity by taking a piece of land on lease in the middle of the village and constructed a mud-build goatary shed to set up a farm for goats. They underwent seven day's training on goatary from the Block Livestock Development Officer, Indas. The group successfully passed Grade-I on 27.03.2003 and received an amount of Rs. 10,000/- as the revolving fund from DRDC, Bankura and Rs. 16,000/- as the bank portion of cash credit loan. From this fund they purchased 35 numbers of goats from the vicinity and started goat-rearing and breeding in the goatary-shed constructed by their own effort. With the intervention of higher skill development for goat-rearing and improved breeding skill imparted to them by the Animal Resource Development Department, they contemplated to go for goat-breeding activity with superior quality of Black Bengal bucks breed.

In the meantime, more and more SHGs (at least twelve numbers of SHGs) have been formed in that village and neighboring village and are encouraged to see the activity of Chichinga Milan Goshthi and its overall performance for producing good quality goat kids. The group has set up a direct market link with those SHGs who wanted to go for goat rearing and breeding activity by purchasing good quality goat-kids from Chichinga Milan Goshthi out of thrift savings and cash loan. The Chichinga Milan Goshthi has also taken a lease of two bighas of fallow land by the side of their original lease-land and started fodder cultivation (Napier Grass). DRDC Bankura has funded them through Indus Panchayat Samity to construct a goat-shed with an estimated amount of Rs. 1.90 lakh. The construction work has been undertaken by the group members themselves and the work has been completed.

In the meantime, the said SHG, being highly encouraged has taken lease of one big pond measuring an area of 1.63 acre in the vicinity and has gone for pisciculture in the month of November 2004. The fishery activity enabled them an amount of Rs. 35,000/- within six months and they have taken lease of four numbers of ponds, which were lying idle in the Chichinga village and started pisciculture. It is estimated that within another one year or so, the members of the SHG would rise above poverty line with sheer perseverance, labour and skill.

The SHG members have engaged themselves to realise the outstanding dues of the bank and till now they have realised an amount of Rs. 50,000/-, which was declared as NPA and thus earned a commission offered to them by Mallabhum Gramin Bank, Indus. They also have taken active initiative to sensitize the villagers to install sanitary latrine at each and every household and have also acted as a good motivator in installing those latrines and ensure that the villagers actually use it.

2.6.3 Co-operatives

Table 2.6.6 Achievement of Bankura District Central Co-operative Bank Limited

Sl. No.	Particulars	Achievement (Rupees in lakh)	
		2004-2005	2005-2006
1	Loans & advances issued	10,627.66	11,346.20
	Crop loan disbursed	4,41.98	5,330.10
2	Deposits	18,494.00	20,582.00
3	Performance of self-help groups		
	Number of groups formed	6,659	8,668
	Total members	58,633	78,205
	Deposits	267.13	427.45
4	Loans issued to groups	609.63	1,008.64
	Net profit	384.49	647.68

Source:- Assistant Registrar of Co-operative Societies, Bankura

Co-operative is a system of people voluntarily associated, working together on terms of equality to eliminate their economic exploitation by middleman in respect of any economic need common to them. It is voluntary and democratic in nature and emphasises service instead of profits. It is a joint effort of self-help, which is of benefit to the whole community. The characteristics of co-operative include voluntarism, mutuality, equality, democracy, autonomy and universality.

Like other districts in West Bengal, the co-operative movement has been progressing with the active participation of district administration as well as the Bankura District Co-operative Union, Bankura District Central Co-operative Bank Limited, Bankura District Co-operative Agricultural & Rural Development Bank Limited, BENFED, Bankura, IFFCO, Bankura, Wholesale Consumer Co-operative Society Limited and others.

2.6.3.1 Bankura District Co-operative Union

For promotion and development of the co-operative movement, it is necessary to educate the members, employees of co-operative institutions and the general public regarding the principles and aims of co-operative movement. In view of the above, the Bankura District Co-operative Union has been working

remarkably by organising co-operative training programmes, seminars, meetings, conferences and exhibitions to spread the message and ideals of co-operative movement in the district.

2.6.3.2 Bankura District Central Co-operative Bank Limited

The Bankura District Central Co-operative Bank Limited is working with its seventeen branches all over the district by providing primary economic support to the common people through its member societies or directly. The role of the bank for socio-economic growth of the people of Bankura throughout the district is reflected in Table 2.6.6.

2.6.3.3 Primary Agricultural Co-operative Credit Societies

The Primary Agricultural Co-operative Credit Societies (PACS) are playing the pivotal role in the development of socio-economic condition of the rural farmers. There are 420 numbers of PACS in the district. However, it is revealed that a large number of common people as well as rural farmers are still not getting any benefit of co-operative movement. A programme of re-organisation of PACS has been undertaken with an aim to bring all the areas in the district under the cover of co-operatives.

Table 2.7.7 Co-operatives in Bankura – at a glance

Sl. No.	Type of society	Number of society	Number of members	Working capital (in lakh Rupees)
1	Central co-operative bank	1	1,270	37,246.53
2	Wholesale consumers co-operative	1	49	111.21
3	Primary land mortgage bank	1	8,040	1,679.94
4	Urban co-operative bank	3	63,653	6,243.27
5	Agricultural credit society			
	Samabay krishi unnayan samity	392	1,71,213	8,702.25
	Farmers' service co-operative society	10	27,053	983.56
	Large-sized multipurpose co-operative society	18	14,283	505.21
6	Non-agricultural credit society			
	Mahila credit society	2	1,885	66.55
	Employees credit society	302	12,167	4,823.10
7	Non-credit society			
	Primary Agricultural Marketing Society	18	14,283	379.23
	Consumers Cooperative	102	17,703	15.23
	Engineers Cooperative	117	1,162	148.56
	Labour contract co-operative	110	5,893	41.47
	Housing co-operative	33	318	Not available

Source:- Assistant Registrar of Co-operative Societies, Bankura

2.6.3.4 Rajgram Co-operative Society Limited: an appraisal

Rajgram Co-operative Society Limited was registered in the year 1944 by the weavers of Rajagram, which has a long tradition of weaving products like bed-sheets, bed-cover, napkin etc. for household use. At present total number of members of the society is 962, out of which only 71 members are engaged in working. The society has forty-five employees and the products of the society are sold through four outlets, which are situated at Rajagram, Durgapur, Purulia & Bankura. The sale turnover of the society in the year 2005-2006 was Rs, 21.56 lakh from own production and Rs. 15.79 lakh from goods purchased from outside, whereas the loss of the society by the end of that financial year was Rs.11.58 lakh. The present performance of the society is very poor due to huge administrative cost compared to the productivity, selling capacity and profit-margin.

Whereas reduction of administrative cost is definitely an issue to reduce the loss incurred by the society, skill up-gradation of the weavers and diversification of products are the major issues, which need to be addressed to keep the society and the age-old weaving tradition of Rajagram alive.

2.7 Land reforms- a redistributive justice

Land reforms have been one of the most remarkable interventions to reduce poverty and bring in improvement in the quality of life in this district. This has been achieved through the process of re-distribution of landholdings in the form of distribution of ceiling surplus land to the landless agricultural labourers known as 'Pattadars', registration of the names of 'Bargadars' working as tillers of the soil of absentee landlords, providing credits, supplying low-cost or free-of-cost seeds, fertilisers, pesticides to these small and marginal farmers.

In the next paras, different aspects of land reforms have been discussed and how land reforms can be, not the sole, but one of the main sources of impetus of different aspects of human development interrelated to one another. The discussion will be confined to the district of Bankura. Lastly analysis of the reasons of failures in achieving the desired goals in some aspects will also be discussed.

2.7.1 Land reforms

It has been defined in various ways. In its narrow sense,

it is a programme from distribution of ceiling surplus land to the landless and the near landless. In its comprehensive sense, it is an integrated programme which seeks to remove obstacles to agricultural production by an equitable and rational restructuring of the land tenure system including pattern of land ownership, provisions of supportive measures like agricultural inputs for the beneficiaries and reform of various agricultural service institutions. It ultimately aims at improvement in the quality of life and poverty reduction.

2.7.1.1 Land reforms – first phase

Land reforms started in West Bengal in the mid-fifties along with other States and till mid-sixties, it witnessed abolition of intermediaries and vesting of ceiling-surplus land. Since 1977-'78, significant progress could be achieved in the areas of distribution of vested land, recording of Bargadars, conferment of further rights to them, grant of ownership rights on homestead land to certain sections of rural disadvantaged class. These reforms have been carried out through synergy of bureaucratic involvement, participation of peasants' organisation and the beneficiaries themselves along with participation of revitalised Panchayats.

2.7.1.2 Bargadars

By definition, a Bargadar means a person who cultivates the land of another person on condition of

delivery of a specified share of the produce. After a sustained peasant movement, the West Bengal Bargadars Act, 1950 was enacted and the rights and safeguards of the Bargadars were codified. He has no right of land, but a right of its cultivation. On his death, his lawful heirs select one from themselves to succeed the rights of cultivation of deceased Bargadar. On certain stringent conditions, the rights of Bargadars can be terminated by an order of authorised Revenue Officer. A Bargadar can also voluntarily surrender his right of cultivation under certain conditions.

Sharing of produce between a Bargadar and land-owner was different from time to time. The latest West Bengal Land Reforms Act, 1955 simplified the pattern. If all inputs of agricultural production are provided by the Bargadar, the share will be 75: 25, the former in favour of Bargadar. If all expenses of production are borne by the landlord, the share will be 50: 50 between them.

2.7.1.3 Operation Barga

It is for more than a century that the names of Bargadars are being incorporated in to the Record-of-Rights as part and parcel of revenue record writing. An evaluation made by the Board of Revenue revealed a dismal picture and in 1978, the Government of West Bengal launched a programme styled 'Operation Barga' to accelerate the process of Barga-recording as a measure of tenancy reform – an exercise ever undertaken in India.

Table 2.7.1 Block-wise break-up of the progress of recording of Bargadars and Pattadars (upto 15th. July, 2006)

Block	Bargadar		Pattadar	
	Number of Recorded Bargadars	Area involved (in Acre)	Number of recorded Pattadars	Area involved (in Acre)
Bankura-I	2419	806.42	3813	1265.24
Bankura-II	3378	1903.25	2238	4125.2
Chhatna	3089	2145.25	6676	3957.84
Saltora	2596	2580.78	6322	4469.26
Mejia	1837	1558.25	3983	2586.25
Gangajalghati	4469	2054.22	5980	1903.12
Barjora	6101	4837.25	10572	3562.33
Onda	11514	7715.25	7481	2780.21
Taldangra	5195	3206.45	11182	4140.52
Simlapal	3173	2605.25	7733	2572.2
Khatra	1440	869.23	3295	1212.2
Hirbandh	543	505.2	2832	1410.61
Indpur	1836	1025.25	4005	2990.18
Raipur	1884	1225.12	10898	1620.2
Seranga	1685	2225.2	3983	2320.2
Ranibandh	1488	949.26	3827	1795.25
Bishnupur	10218	2598.25	15225	5187.15
Joypur	12455	4480.25	8108	2163.25
Kotulpur	11407	4125.25	7369	2966.3
Sonamukhi	10343	9626.03	9454	2087.2
Patrasayer	12591	7815.05	18141	4200.25
Indus	7039	4875.25	18736	3181.86
Total	116700	69731.71	171853	62496.82

Source:- Office of the District Land & Land Reforms Officer, Bankura

The Table 2.7.1 shows the progress of recording of Bargadars and Pattadars upto mid-July, 2006 in different blocks of Bankura.

2.7.1.4 Pattadars

Pattadars are the persons with whom land at the disposal of the government including the land vested to the state as ceiling-surplus are distributed following the limit of upto 1.00 Acre per landless person. For a Bargadar, half of the land cultivated by him as Bargadar, shall be taken

into account in determining his entitlement. Pattadars are the direct beneficiaries of distributed land reforms. They are not permitted to sell the land, but may mortgage the same for specific purposes like development of the land and the like. Subject to the ceiling, a Pattadar may own one piece of land as a raiyat, he may cultivate other land as a Bargadar. Pattadars are owner-cultivators whereas Bargadars are tenant-cultivators.

Table 2.7.2 Distribution of Pattadars and Bargadars among the various social groups (upto 15/7/2006)

Block	Number of Pattadars				Number of Bargadar			
	SC	ST	Others	Total	SC	ST	Others	Total
Bankura-I	2286	766	761	3813	738	158	1523	2419
Bankura-II	1335	359	544	2238	534	189	2655	3378
Chhatna	3197	2141	1338	6676	895	736	1458	3089
Saltora	3285	1747	1290	6322	721	483	1392	2596
Mejia	2313	331	1339	3983	402	50	1385	1837
Gangajalghati	2997	1048	1935	5980	1383	226	2860	4469
Barjora	5327	3283	1962	10572	1324	185	4592	6101
Onda	5570	247	1664	7481	3078	924	7512	11514
Taldangra	6055	2329	2798	11182	1631	1045	2519	5195
Simlapal	2788	2334	2611	7733	850	776	1547	3173
Khatra	1228	1079	988	3295	426	667	347	1440
Hirbandh	921	1194	717	2832	265	60	218	543
Indpur	2580	737	688	4005	752	352	732	1836
Raipur	3657	4033	3208	10898	689	485	710	1884
Seranga	2260	608	1115	3983	501	528	656	1685
Ranibandh	504	1948	1375	3827	196	782	510	1488
Bishnupur	4872	4374	5979	15225	3984	1940	4294	10218
Joypur	5545	633	1930	8108	2101	472	9882	12455
Kotulpur	3523	1955	1891	7369	5924	234	5249	11407
Sonamukhi	5382	766	3306	9454	2197	281	7865	10343
Patrasayer	12330	1485	4326	18141	2883	500	9208	12591
Indus	12701	1518	4517	18736	385	1452	5202	7039
Total	90656	34915	46282	171853	31859	12525	72316	116700

Source: Office of the District Land & Land Reforms Officer, Bankura

Table 2.7.2 gives a picture of the benefits of the land reform to the vulnerable sections of the society, i.e., the people belonging to the scheduled castes (SC) and scheduled tribes (ST).

Thus a large portion of the beneficiaries was the landed people in the state, though Bankura of course shows a better picture.

Table 2.7.3 Distribution of Pattadars according to land-ownership status before conferment of Patta rights (March, 2002)

(Bracket shows percentage figure.)

District/State	Number of Pattadars		
	Landed	Landless	Total
Bankura	35062 (25.09)	104707 (74.91)	139769 (100)
West Bengal	711470 (32.87)	1452813 (67.13)	2164283 (100)

Source: Office of the District Land & Land Reforms Officer, Bankura

2.7.1.5 Other inputs in land reforms

In a land reforms initiative supplementary inputs like credit, quality seed, irrigation are equally important.

With the active participation of Panchayat etc., the state government launched a programme to provide Bargadars, Pattadars institutional finance to free them from the clutches of money-lenders in order to minimize dependency relationship. With a modest beginning, upto 1983-'84, it was possible to bring 3.5 lakhs Pattadars and Bargadars under its coverage in West Bengal, but it could not be sustained.

A study by Prof. A. K. Chakraborty and others in 2003 have brought out several findings in regard to credit, extension services, convergence of benefits etc. to them. An insignificant percentage of Pattadars could be brought under the co-operative credit system. Extension services have hardly reached them and the linkage of local Agriculture Department with land reforms was found to be quite weak. The study clearly brought out that the crucial issue of providing supplementary inputs to Pattadars deserved more attention at least at the grass root level.

Table 2.7.4 Distribution of Patta and Barga land according to availability of irrigation for Patta/Barga land (all figure in percent) (as on November, 2005)

District/State	Patta land			Bargadar		
	Irrigation available	Irrigation not available	Total	Irrigation available	Irrigation not available	Total
Bankura	46.09	53.91	100	56.49	43.51	100
West Bengal	60.44	39.56	100	64.51	35.49	100

Source: Office of the Director of Land Records & Survey, West Bengal

It may be noted that in Bankura, the percentage of non-irrigated Patta land is much higher compared to the state average. Similar is the case for Barga land though the gap is smaller. Thus the supplementary inputs in the form of irrigation sources are must if land reforms

have to make an impact on poverty in Bankura. Efforts are on in terms of bringing in Patta land under the ambit of the National Rural Employment Guarantee Scheme and make it remunerative through land development and drought proofing measures.

Table 2.7.5 Distribution of Pattadars and Bargadars according to use of chemical fertiliser (as on November, 2005)

(Bracket shows percentage figure.)

District/State	Pattadar using fertiliser			Bargadar using fertiliser		
	Using fertiliser	Not Using fertiliser	Total	Using fertiliser	Not Using fertiliser	Total
Bankura	122548 (87.68)	17221 (12.32)	139769 (100)	104538 (97.61)	2560 (2.39)	107098 (100)
West Bengal	1888219 (87.24)	276064 (12.76)	2164283 (100)	1382810 (92.95)	104875 (7.05)	1487685 (100)

Source: Office of the Director of Land Records & Survey, West Bengal

Though use of chemical fertiliser is reasonably high much is yet to be achieved in terms of use of bio-fertilisers and bio-pesticides.

2.7.1.6 Findings and suggestions

(i) At the State level 13.23 percent of the Pattadars

have been disposed of their Patta land due to various reasons upto the month of November, 2005. Out of these, only 2.73 percent of them have sold off their land. For the district of Bankura the figures are 15.45 percent and 0.41 percent respectively.

Table 2.7.6 Distribution of Pattadars according to alienation / loss of possession of Patta land (as on November, 2005)

(Bracket shows percentage figure.)

District/ State	Not alienated	Alienated	Total	Distribution of Pattadars according to the reasons of alienation		
				Inability to invest in cultivation	Family composition	Others
Bankura	118180 (84.55)	21589 (15.45)	139769 (100)	672 (3.11)	569 (2.63)	20348 (94.26)
West Bengal	1878021 (86.77)	286262 (13.23)	2164283 (100)	12935 (4.52)	55010 (19.22)	218316 (76.26)

Source: Office of the Director of Land Records & Survey, West Bengal

Table 2.7.7 Number of pattadar of Sabar community

Block	Number of Pattadar
Ranibandh	82
Raipur	219
Khatra	19
Total	320

Source: Office of the District Land & Land Reforms Officer, Bankura

Land alienation is a serious issue. Though there is no adequate data, it has been observed that in some cases, Patta was handed over to the beneficiaries but they were not given possession of land. An effort is being made to find out such cases, give possession of land and provide them support through the National Rural Employment Guarantee Scheme for land development and social forestry/ horticulture. Now that it is obvious that most of the Patta land is degraded, there is an urgent need to reclaim and bring it to proper use through land development. Otherwise the dream of poverty reduction through land reform will remain half fulfilled.

The Table 2.7.7 shows Patta land given to Sabar (which is a primitive tribe) community. A large portion of the same has not been given possession.

Generally it is seen that the quality of Patta land is inferior. In a village scenario land is one of the most precious commodity. The poor has traditionally been dependent on local money-lenders for loan to survive in distress. At times, they have to mortgage their land for the said loan. In the past, several such cases of mortgage or registration of sale-deed have been reportedly done in this district which ultimately resulted into transfer of land since the loan could never be repaid! When the provision of ceiling came into effect, the big rayats safely relinquished the worst part of their possession and as a result vested land turned out to be of inferior quality.

Vested land if left undistributed (and hence unattended!) slowly degrades further because of undulations resulting into surface run-off and soil-erosion. It is estimated (though there is no reliable data) that more than 50 percent of vested land in this district is degraded.

Table 2.7.8 Distribution of Pattadars and Bargadars according to alienation and dispossession (as on November, 2005)

District/ State	Alienation through sale	Dispossession through eviction
Bankura	0.41 %	2.25 %
West Bengal	2.73 %	3.02 %

Source: Office of the Director of Land Records & Survey, West Bengal

(ii) Land Reforms is a necessary but not sufficient condition to bring about improvement in agricultural production. Provisions of material inputs like credit and other rural services are necessary to complement land reforms. The emerging scenario is distressing which brings out a

feeble linkage of agricultural institution and land reforms. A very small section of Pattadars and Bargadars is member of Primary Agricultural Credit Societies crucial for procurement of critical inputs like fertilizer, seed, credit etc.

Table 2.7.9 Distribution of Pattadars and Bargadars according to membership of primary agricultural credit societies (PACS) (as on November, 2005)

(Bracket shows percentage figure.)

District/ State	Number of Pattadar			Number of Bargadar		
	Member	Non-Member	Total	Member	Non-Member	Total
Bankura	15581 (11.15)	124188 (88.85)	139769 (100)	23931 (22.34)	83167 (77.66)	107098 (100)
State	316450 (14.62)	1847833 (85.38)	2164283 (100)	306369 (20.59)	1181316 (79.41)	1487685 (100)

Source: Office of the Director of Land Records & Survey, West Bengal

(iii) Insignificant coverage of women in land distribution programme is another worrying aspect. The state government has adopted a policy of issue of joint Patta in 1994-1995 when a huge numbers of single Patta have already been issued. In view of the cruciality of the issue, a well thought out programme is needed.

(iv) Large chunks of undistributed and fallow vested land is a resource which is losing its value. Block-wise details of undistributed vested land is shown in Table 2.7.10.

As per an order issued by the Land and Land Reforms department in 1987 management of undistributed vested land may be assigned to community for taking up social forestry or such other activity. Now that self-

help groups have developed as a powerful institution, this process may be initiated with mutually agreed sharing of usufructs between the local bodies and the self-help groups.

A recent development in the arena of land reforms is a new scheme namely 'Chash-O-Basobaser Bhumi Dan Prakalpa' introduced from 1st. February, 2006 to purchase and distribute agricultural land to the land less agricultural families living below poverty line with special priority to SC, ST and OBC families. The price offered per acre at present is Rs.80000 for mono crop, Rs.100000 for double crop and Rs.120000 for treble crop land. The idea is novel and Rs. 10 crores has been allotted during this current financial year and more fund will be allotted in the next year depending

on the market demand. At least 16 decimals of land will be distributed to each eligible family for agriculture, which will cost Rs. 25000 approximately.

Last financial year in Bankura 21.03 Acres of land was purchased. The scheme has not been quite popular because the purchase price has been on the lower side.

Table 2.7.10 Block-wise scenario of distribution of agricultural land to the Pattadars
(upto 15th. July, 2006)

Block	Total land vested (in Acre)	Total land distributed (in Acre)	Number of beneficiaries	Per capita distribution (in Acre)
Bankura-I	1741.48	1164.26	3813	0.31
Bankura-II	1076.52	598.6	2238	0.27
Chhatna	4991.62	4057.58	6676	0.61
Saltora	4197.3	3902.68	6322	0.62
Mejia	3675.72	2386.87	3983	0.60
Gangajalghati	2391.71	1703.74	5980	0.28
Barjora	5464.62	3562.33	10572	0.34
Onda	3628.04	2145.5	7481	0.29
Taldangra	5113.75	4140.52	11182	0.37
Simlapal	4174.89	2320.2	7733	0.30
Khatra	1601.45	1012.6	3295	0.31
Hirbandh	1835.55	1410.61	2832	0.50
Indpur	1746.47	1050.2	4005	0.26
Raipur	2882.4	2541.7	10898	0.23
Sarenga	3017.41	2121.64	3983	0.53
Ranibandh	2310.57	1575.1	3827	0.41
Bishnupur	5769.48	5187.15	15225	0.34
Joypur	2280.26	2146.3	8108	0.26
Kotulpur	2566.79	1910.88	7369	0.26
Sonamukhi	4051.2	3266.17	9454	0.35
Patrasayer	4419.2	4201.6	18141	0.23
Indus	3386.46	3281.2	18736	0.18
Total	72322.89	55687.43	171853	0.32

Source: Office of the District Land & Land Reforms Officer, Bankura

Through provision of acquisition of homestead land provided in Agricultural Labourers, Artisans and Fishermen Act, 1975, approximately 3.03 lakhs beneficiarties have been allotted ownership of such land to the extent of 0.0334 Hectares, i.e., eight decimal each upto November, 2001. In Bankura, the figure stands at 22118 beneficiatries till that period.

By implementing different employment generation schemes through effective implementation of second phase of land reforms suggested above and with the fruit of significant achievement noticed in the first phase of land reforms in West Bengal, it can be

expected that major breakthrough in reducing unemployment can be visualised, at least in rural areas, where majority of the population still reside.

2.8 Panchayat Raj Institutions

French philosopher J.J. Rowssear elaborated the phrase 'Vox populi Vox dei', i.e., voice of the people is the voice of God, whereby he claimed that 'people is sovereign'. In fact, since the French Revolution of 1789, this ideology that sovereignty lies in people is well-accepted and well-established. People are sovereign. So

they should take part in day-to-day functioning of the government. For this reason, his concept of participatory democracy gained prominence over the years with the aim of involving people in the process of decision-making through grass-root level institutions like Panchayat and Municipality.

For development of an area, people's participation is considered advantageous because it helps in seeking co-operation from people in giving a new thrust to programmes of which they are the beneficiaries accomplishing the project-goals through participative decision-making, mobilisation of local resources, completing specific programmes within prescribed time-limit, conducting social audit, promoting their own development as well as developing a spirit of self-reliance, improving local initiative and developing leadership.

2.8.1 History of decentralisation in Bankura

The origin of Bankura as a single administrative unit does not, however, date earlier than 1765, the year of the grant of the Diwani to the East India Company and, in true official sense, Bankura district as an administrative unit dates from 1881 by the order of H.A. Cookerell, the- then Secretary to the Government of Bengal. Bankura has a long history of democratic decentralisation process.

In West Bengal, the West Bengal Panchayat Act 1957 was enacted after independence replacing Bengal Village Self-government Act of 1919 (two-tier structure) to promote democratic decentralisation at the grass-root level.

Besides, in an endeavour to integrate the Panchayat institutions with community development programme framework in West Bengal, Zilla Parishads Act, 1963 was enacted. This Act introduced two more tiers of local self-government, i.e., Zilla Parishad at the district level and Anchalik Parishad at the block level. Altogether 15 Zilla Parishads and 325 Anchalik parishads were constituted.

Subsequently in 1973, West Bengal Panchayat Act was passed annulling the previous two Acts. The four-tier structure was replaced by three-tier all-India pattern of Gram-Panchayat, Panchayat Samiti and Zilla Parishad. The new Gram-Panchayat is similar to the Anchal Panchayat of 1957 act as consisting of a group of

villages with a population of approximately 10,000. Following the recommendations of B. Mehta committee, Panchayat Samities were made coterminous with blocks and Zilla Parishads were made coterminous with districts. The act provided for the direct election of members of all the three tiers for a five-year term. The Prodhans of Gram-Panchayats were ex-officio members of Panchayat Samities and the Sabhapatris of Panchayat Samities are similarly ex-officio members of Zilla Parishads. The act also provided for nominations of officials without voting rights into the standing committees of Zilla Parishad and local MLA and MPs as ex-officio members of both block and district tiers. The West Bengal Panchayat Act, 1973 remains in vogue though there are several amendments, specially after 73rd constitutional amendment of 1992.

2.8.2 Present scenario

The present Panchayat System, unlike earlier ones, comprises three tiers. The lowest tier is the Gram-Panchayat consisting of a group of villages as its constituent parts and having a maximum population of 7000. The number of total members of Gram-Panchayats varies between 5 to 30 according to the number of voters. In Bankura, there are at present 190 Gram-Panchayats with 2632 members (source:- Economic Review, 2005-'06, p 218). The middle tier is called the Panchayat Samiti at the Block level. In Bankura, there are at present 22 Panchayat Samities with 978 members (source:- Economic Review, 2005-'06, p 218). The Zilla Parishad at the District level is the highest tier of the Panchayat system. Each block contains one to three constituencies consisting of contiguous Gram-Panchayats depending on the number of electors in those Gram-Panchayats.

Lastly, we must add two more points in discussing people's participation in Bankura. Like all other districts there is a provision for reserving seats at the three levels of Panchayat for scheduled castes (SC) and scheduled tribes (ST), based on population. In addition, since 1992 one-third of the seats have been reserved for women (including women belonging to SCs and STs). In 1977, the Left Front came into power and according to their 36-point programme, the Panchayat Raj institutions (PRI) were constituted by direct election at all levels. Indeed, West Bengal in general and Bankura in particular started the process of 'revival' of

Panchayat system through a new kind of grassroots leadership.

Present day grassroots leadership of Bankura shows a significant variation if it is compared with earlier composition. Age-wise, younger people are now seen in all the tiers of Panchayat. About 67.64 percent Pradhans nowadays belong to the age-group of below 40 years and only 7.89 percent are above the age-group of 50 years. At the Block level, none is above 50 years of age and 72.73 percent Block-level representatives belong to the age-group of below 40 years. At the District level also most of the leaders (86.37 percent) are within the age-group of 50 years and only 13.63 leaders are above. It may be safely concluded that age is losing its significance as a criterion for selection of representatives.

It is seen that power at the grassroots level, which was previously monopolised by the higher castes, specially the Brahmins, is now slowly but perceptibly shared by other castes also. Within a short span of three decades both SCs and STs have doubled their strength from 4.42 percent and 5.52 percent respectively to 10.00 percent and 13.16 percent respectively in 1988 election at Gram-Panchayat level. However, their position at Block-level and District-level is yet to improve. In fact, social inequality in between the so-called 'Bhadralok' and 'Chhotolok', an ignominious and offensive divide, will take some time to be routed and the process which has started at the grassroots level will ultimately lead to a new kind of realignment of social forces and this change will come from within the village society and not from without.

As regards sex, the malefolk still dominate with an overwhelming majority at all the three levels of Panchayat bodies. Though there are women representatives due to the reservations, many of them (as is true in other parts of India) are yet to fully participate in the process of decision-making. Involvement of women is surely going to address the need of women and children in the long run.

From the stand point of education it can be safely said that more and more educated people are taking part at the grassroots levels, which is definitely a healthy sign for a participatory democracy.

Again, from the economic point of view it is revealed that though economically well-off people are still in

dominant position at the grassroots level, due to structural change in rural area, presence of the poor cannot be ignored at the same time. About 30 percent of the leaders at the Gram-Panchayat level belong to low-income group. Similarly, at the Block level 40.91 percent and 20.45 percent at the district level belong to this category. In real terms they are just above the poverty line.

Moreover, it can be said that the grassroots leadership, which was mainly controlled by the land-owning class ('Jotedars'), has now been shifted to the teaching community. At the Gram-Panchayat level, Block-level and District-level respectively 29 percent, 49 percent and 62 percent (approximately) representatives are teachers. This trend is described by Nirmal Mukherjee as 'teacher caucus in West Bengal'. It has been found on enquiry that the teachers are both highly esteemed as well as economically well-off (due to pay revision measures adopted by the Left Front Government). So they receive support from the bulk of the people.

Finally, as regards the class-origin of grassroots leaders, the middle-class peasants are gaining ground at all the three levels of Panchayati Raj institutions. The presence of poor peasants, marginal farmers, day-labourers, and artisans at all the levels are on the increase. This is definitely a healthy sign in developing democracy and it can be safely concluded that pro-poor character, which is the ultimate aim of this system, is gradually emerging.

Also all office-bearers of Panchayat (Pradhan, Upa-Pradhan, Sabhapati, Sarakari Sabhapati, Sabhadhipati and Sahakari Sabhadhipati and so on) are whole-timers and receive monthly honorarium from the government. Naturally the teaching community who were having political patronage has lost the ground and a new group of people who can devote as whole-time workers are getting involved.

Since 1980, West Bengal government entrusted the Panchayats with the implementation of as many as 27 development programmes. The list included some of major developmental schemes, such as rural reconstruction programme, rural water supply, rural housing scheme, distribution of agricultural inputs, programme of reconstruction of school building, employment generation programme etc.

Decentralisation means devolution of fund, function and functionaries to the local bodies. While function has

been attributed to the Panchayat bodies, fund and functionaries are yet to be assigned to the proportionate level. Local bodies are still mainly dependent on the grants received from the state and central governments. There is definitely a very good scope for collection of tax and non-tax revenues by the Panchayat bodies.

As regards functionaries, various line departments have been designated as the authorised officer of the local body. It is definitely a fact that panchayat bodies have provided a platform where there is a scope of integration and convergence of various departmental interventions.

It should be noted that devolution of decision-making

should finally reach the people. Local bodies may act as the facilitator for the process. In this respect, capacity-building of the user groups, self-help groups, watershed development committees and other stakeholders is equally important so that they may participate in the process of development. In addition, there are traditional village institutions (viz., 'Solo Ana committee' in the villages and tribal village institutions), which should be involved. These community-based organisations have the flexibility to operate through consensus and thereby promote cohesion in a village, which acts like a catalyst for development. Panchayat bodies need to acknowledge and encourage these community based organisations.

Non-tax collection by Routhkhanda Gram-Panchayat

Table 2.8.1 Non-tax revenue collection by Routhkhanda Gram-Panchayat

Year	Non-tax revenue collected (in lakh Rupees)		
	From sale of tree	As toll tax collected from sand-carrying vehicles	Total
2003-'04	6.47	4.84	11.31
2004-'05	9.88	5.91	15.79
2005-'06	7.14	6.65	13.79
	23.49	17.4	40.89

Source: Office of the Block Development Officer, Joypur

Routhkhanda is one of the Gram-Panchayats of Joypur block under Bishnupur Sub-division. It has created an example of collection of highest non-tax revenue in the district through an innovative approach. The Gram-Panchayat every year plants a good number of trees under the programme of social forestry, which grow after few years and become saleable. As the programme of afforestation is taken up in a planned manner every year, the Gram-Panchayat gets forest produce each year and sells those trees and collects a sizeable amount as non-tax revenue. Also the Gram-Panchayat collects toll tax from the vehicles collecting sand from the riverside of the Dwarakeshwar falling in that Gram-Panchayat. In all, the Gram-Panchayat has been able to utilise its resource-base and mobilise non-tax revenues, which is being used for various developmental activities of the Gram-Panchayat.

It may also be noted that in a backward district like this where literacy-level is low and there is little pressure to perform, various delivery institutions are weak and are at times even insensitive to peoples' needs. Since the process of development cannot wait and capacity building takes time, involving community in conceptualisation, implementation and monitoring can accelerate the process

and quality of work is preserved. In this respect, the bond between PRIs and the community-based organisations need to be strengthened and institutionalised. PRIs should be encouraged to involve them as much as feasible. After all, inclusion of women, SC, ST and other vulnerable sections is possible only if the groups constituting them are involved in the process of growth.

It is also seen that peoples' participation in Panchayat is not optimum. Average attendance at Gram-Sansad at Gram-Sabha meetings has been relatively low and declining (10-12 percent). There is also evidence of cases when the attendance at meetings falls below the quorum. This is definitely a cause of worry since it partly reflects a loss of interest of common people in such institutions. There is, however, adequate evidence to the positive role played by Panchayat bodies in conflict resolution. This has resulted into a situation in which felt need of people is getting reflected into the action plan of the Panchayat bodies.

2.9 Investment climate

The economy of Bankura is mainly agrarian. Yet there is a large scope of employment generation through industrialisation. The district is broadly divisible into two regions, the alluvial plains in the east and the undulating tract to the west. Within the district and even within these regions, there is wide variation in geographical features as well as in the economic and social life patterns.

The pace of industrialisation in the district has historically remained slow. Despite the proximity to Durgapur-Asansol industrial belt, there were no worth mentioning large and medium-scale industries, till some years ago, except a few like Mejhia Thermal Power Project, Kangsabati Spinning Mill etc. This has, however, picked up in recent years. There are many factors conducive for industrialization in this district.

2.9.1 Mineral resources

Bankura is very rich in minerals like coal, copper, Tungsten, cyanide, cheoline, ciotite, calc, red oxide, felsper, lead, and mica etc. There is a big potential to tap this resource and put up related industries.

Coal: The main mineral of the district is coal. The coal mines are situated in Saltora, Mejhia, Barjora and Gangajalghati area. Mejhia itself holds 10 coal mines. Quantity of coal estimated to be present in Bankura is 11 million ton throughout an area of 33.5 Square Km.

Unfortunately illegal coal mining has become a big nuisance. Around 5000 people are involved in this activity. The returns are very good and as a result it is very difficult to pull the community out of this activity. Since the whole thing is illegal, the community is very

reluctant to sit with administrative agencies and sort it out. The gap can only be bridged by some well-meaning non-governmental organisations. People need to be motivated to earn their livelihood in a dignified manner.

The only long-term solution is perhaps to regularise this by allowing mining for captive use.

Copper: The district has a deposit of copper at Damdi, Mukutmanipur, Khatra, Sarong, Nilgiri and Narayanpur. Near Kangsaboti Dam, a 2 Km. long ridge of copper has been found.

Tungsten: It's a rare metal with vast demand in India and other countries. Chhendapathar and Porapahar have the deposit of this metal in the whole state.

Cayanite: This is another valuable mineral used in heater, high temperature instruments etc. At Balarampur (near Mukutmanipur), a huge amount of deposit (20 Km. long) has been found.

Cheoline: An excessive deposit of cheoline or china-clay can be found at Jalahari Pahar, Dhatar, Malti, Thakurdungry etc. and in many places of Taldangra police station.

Mica: Bankura is one of the three districts of West Bengal in which mica is available. Almost 100 numbers of pegmatite have been found in Khatra, Indpur, Bankura Town, Gangajalghati and Jhilimily though most of them are in the form of either small shaped sheets or powder.

Biotite: Biotite is another metal almost alike mica. It has been found in Karanjora, Dantkigora, Itadangra, and Gourangadihi near Khatra sub-division and at Mankanaly in Bankura.

Talc: This is one of the valuable minerals of Bankura. It's a very soft mineral used in making talcum powder. Rudra and Matgoda of this district are enriched with talc.

2.9.2 Land

Bankura has a varied physiographic feature. As most of the land in this district (specially the Sadar subdivision) is mono-cropped with cropping intensity of 147 percent and the general productivity being low, the cost of land is less than that of the industrialised districts, a factor which can be conducive for setting up the new industries.

Northern Bankura definitely has a clear advantage of low cost of land, the area being mono-cropped and its proximity to Durgapur and Asansol.

Table 2.9.1 Cost of land : a picture

Sub-division	Class of land	Cost per bigha (in Rs.)
Bankura Sadar	Tara	40,000/- to 50,000/-
	Baid	40,000/- to 50,000/-
	Kanali	55,000/- to 65,000/-
Bishnupur	Tara	45,000/- to 55,000/-
	Baid	45,000/- to 55,000/-
	Kanali	55,000/- to 65,000/-
Khatra	Tara	45,000/- to 55,000/-
	Baid	45,000/- to 55,000/-
	Kanali	55,000/- to 65,000/-

Source:- Office of the District Registrar, Bankura

2.9.3 Water

Bankura is very poor in ground-water resources because of crystalline basement. The average annual rainfall reaches as high as 1400 mm., but a major part of the precipitation passes away as surface run-off with only a minor proportion contributing to the groundwater by infiltration and percolation.

On the other hand, so far as surface flow is concerned, the drainage of the district is mainly controlled by the Damodar, the Dwarakeswar and the Kangsabati rivers along with their network of tributaries. They have, in general, south-easterly flow. The courses of the principal rivers are approximately parallel to each other. Damodar river rises in hilly country of Palamau district of Chhotonagpur and before it touches Bankura district, it receives the water of many smaller streams including those of the Barakar, its principal tributary. Dwarakeswar flows approximately through the middle of the district and divides it into two halves. The Kangsabati or the Kasai is the third largest river in the district, which rises in the hilly terrain of Jhalda block in the adjoining district of Purulia and enters Bankura district in Khatra block. Also some other rivers or tributaries, like Gandheswari, Sali, Arkasha, Birai, Bodai etc. play an important role in the irrigation of the district. Most of the rivers are seasonal. Damodar plays an important role in providing water to the industries

based in north Bankura. Of course, the present sources need augmentation to fulfil the requirement of the new industries.

In this backdrop the scope of harnessing ground-water as well as the scope of getting round-the-year abundant water from river-lifting is limited for industry except in the vicinity of the river of Damodar, which flows throughout the year. Hence there can be an area-wise variation of industries, in which industries with low-water requirement may be set up in the western and southern parts, whereas the eastern and north-eastern parts of the district adjacent to the Damodar may be ideal place for other industries.

2.9.4 Labour

The district has abundance of surplus labour, a fact that is reflected from the statistics of the Census, 2001, where it is mentioned that the number of non-workers is 55.25 percent. A majority of these non-workers can be engaged in the industries at reasonable wages. The wage level is in any case low because of low demand. A sizeable population goes for seasonal migration every year, which indicates that there is surplus labour. Also the expansion of technical and technological institutes has been able to produce sizeable number of skilled youths in recent times that can contribute to these industries.

Table 2.9.2 Classification of workers

Sl. No.	Category	Percentage with respect to the population
1	Main workers	29.61
2	Marginal workers	15.10
3	Non-workers	55.25
4	Cultivators	13.77
5	Agricultural labourers	15.67
6	Household industries	2.34
7	Other workers	12.59

Source:- Census, 2001

2.9.5 Electricity

The existence of Mejhia Thermal Power Plant within the district and other thermal power plants in Durgapur and Kolaghat can be a boon for the proposed industries for Bankura, as transmission-loss can be minimum due to proximity of the district to these power plants. The electrical grid in the district is well-knit with the existence of two 132/33/11 KV sub-station and twenty-four 33/11 KV sub-stations.

On the otherhand, per capita domestic consumption of electricity is also very low compared to the adjoining districts. Thus abundance of electricity can be used for setting up of industries in the entire district.

In North Bankura there is an augmentation plan to have an augmentation of 2 X 500 MW in the Mejhia Thermal Power Plant which is going to be an added advantage for the new industries coming up in this part of the district.

Table 2.9.3 Block-wise number of mouzas electrified upto 2005-2006

Sl. No.	Name of Blocks	Total number of mouzas	Number of mouzas electrified	Percentage of mouzas electrified
1	Bankura-I	150	120	80.0
2	Bankura-II	154	128	83.1
3	Barjora	199	172	86.4
4	Bishnupur	161	128	79.5
5	Chhatna	288	205	71.2
6	Gangajalghati	165	146	88.5
7	Indpur	222	135	60.8
8	Indus	131	124	94.7
9	Joypur	139	127	91.4
10	Khatra	155	113	72.9
11	Hirbandh	121	93	76.9
12	Kotulpur	170	148	87.1
13	Mejia	75	69	92.0
14	Onda	291	231	79.4
15	Patrasayer	160	137	85.6
16	Raipur	206	60	29.1
17	Ranibandh	186	102	54.8
18	Saltora	157	107	68.2
19	Sarenga	166	126	75.9
20	Simlapal	203	144	70.9
21	Sonamukhi	186	155	83.3
22	Taldangra	145	120	82.8
Total		3830	2890	75.5

Source:- Office of the Divisional Engineer (Rural Electrification), WBSEB

2.9.6 Communication network

Another factor which is important with respect to building investment climate in the district is the communication network.

2.9.6.1 Rail & road connectivity

Since the economy of Bankura district is still agrarian in character and the settlement pattern scattered and rural, the network of roads and bridges constitute a critical role with regard to transportation of essential goods and services. The existing road transportation system connects different parts of the district with Kolkata and other

important towns. It is located 231 Km. from Kolkata and connected to it through a good rail and road network. It is connected to Durgapur (50 Km. away), an industrialised town. Since this district is a continuation of the Chhotonagpur plateau, the availability of raw materials for black-top road on one hand and the characteristic of soil, on the other hand, is favorable for road-construction works. Railway system is also good. The district is mainly served by the South-Eastern Railway. The existing railway track passing through the district has connectivity to the important places like Kolkata, Asansol, Kharagpur, Ranchi, Tatanagar etc. and new railway lines are also coming up.

Table 2.9.4 Length of railway track and different classes of roads in the district (in Kms.as on 2003-2004 (provisional)

National highways	State highways	District roads	Railway track
70	126	355	385

Source: Bureau of Applied Economics and Statistics, West Bengal



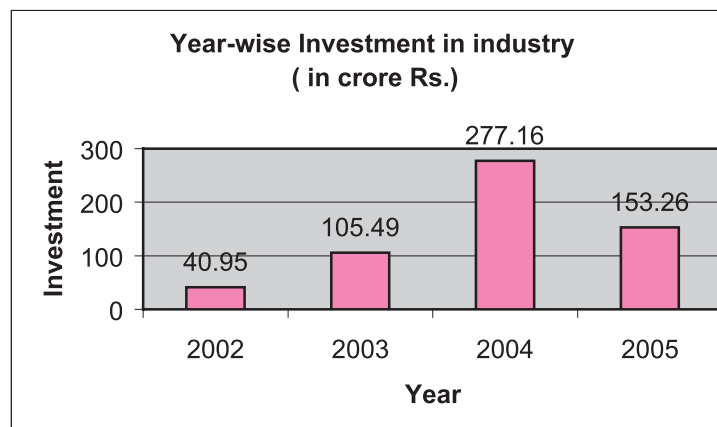
Source: NRCMS, Bankura

Map 2.9.1 Status of telephone coverage in Bankura

2.9.6.2 Telecommunication facility

Telecommunication facility is one of the important modes of communication today and a recent study of the land-line and mobile telephone services available shows

that most part of the district is under the coverage of land-line or mobile telephone service or both. This telephonic connectivity is also a positive factor for the setting up of new industries in various corners of the district.



2.9.2 Investment in Bankura from 2003-'04 to 2005-'06

2.9.7 Investment status

Though Bankura has good potential for industrialization, the investment scenario has been very bleak till 1999. However, investment went up substantially thereafter as the diagram 2.9.2 indicates. Most of these are centered at the eastern side of the

district, which is close to the Durgapur-Asansol industrial region.

The type of industries that have come up along with the number of units and number of persons employed is shown in table 2.9.5. A large number of sponge iron units have also come up during the period.

Table 2.9.5 Industries set-up from 2003-'04 to 2005-'06

Year	Number of units set-up	Number of persons employed	Types of units
2003-2004	7	681	Newspaper printing, bleaching, dyeing and printing of cotton textile, ferro-chrome, ferro-manganese & silico-manganese, dairy milk, potato preservation, steel products, sponge iron, aluminium and steel product, warehouse of agro-products, pig iron and hot metal, fly-ash
2004-2005	21	2617	
2005-2006	16	5896	

Source:- Annual report and quarterly report published by the Directorate of industries, West Bengal

From 1999-2000, sponge iron industries began to spring up in Bankura. Till date quite a few such industries, with plant sizes varying from small to medium, have come into existence. For a resource-starved district as Bankura, this was seen to be a welcome respite.

Sponge iron is relatively easy to produce as compared to other varieties of iron. There is always a moderate demand for sponge iron in the market. For Bankura based plants, the market was Kolkata and Durgapur.

However, there are some areas of concern. A medium-sized sponge iron plant need 3,00,000 litres

of water per day. The ground water level in areas around these industries have already lowered alarmingly. Everyday, volume of water that would have sufficed to have met the water requirement of 50,000 people is being consumed by each of the sponge iron plants. This raises more concern in the light of the fact that this is happening in such a drought prone district as Bankura.

In addition, many of these plants do not operate the Electrostatic Precipitator (ESP), the pollution control device. Shortage of ground-water is a genuine problem and it is suggested that those kind of industries may be encouraged in this district which requires less water.

2.9.8 Prospect

The mines and minerals play a vital role in the economy of Bankura. In areas like Chhatna, Saltora, Khatra, Ranibandh, Bankura to Indpur stretch, Raipur, Taldangra, the prospects for setting up of mineral-based industries are indeed bright, subject to environmental clearance.

The blocks like Bishnupur, Sonamukhi, Patrasayer, Indus, Joypur, Kotulpur have been setting up agriculture-based industries like rice and oil-mills. There is scope for more. The climate is also conducive for food processing ventures.

The forest wealth of Khatra and Ranibandh areas has always been remarkable. Various forest produce and medicinal flora and fauna are routinely exported to neighboring districts and also outside the State. On one hand, industries can be developed to extract non-edible oils and on the other, different medicinal plants and ayurvedic formulations can be produced here. Such development will not only generate employment

opportunities for local people, but also accomplish the task of conservation of forest. Apart from this, in this district large chunk of areas are having undulated lateritic soil which cannot retain water. Consequently, most of these areas is either under mono-crop production or lying fallow. Certain aromatic plants and foriculture, which require little irrigation, can be taken up in this area. Moreover, new species of herbs and medicinal plants may be planted in the vacant areas and unutilized forest land.

Cottage & small-scale industry constitutes a major segment of the district's economy. It provides maximum employment opportunity next to agriculture and accounts nearly nine percent of the district's income. There is ample scope of development in this sector with provision of modern technology and other infrastructural facilities. Effort has been taken up for the improvement of designs, marketing assistance and finance etc. specially in case of brass & bell-metal craft, conch-shell products, fishing-hook, pottery and leather products etc. through different development agencies, which could be promoted in a bigger way.

Bibliography :

1. District Gazetteer of Bankura, ed. by Amiya Kumar Banerjee, IAS, p 223
2. Towards A District Development Report, by Biswajit Chatterjee and Dilip Kumar Ghosh of SIPRD, West Bengal, pp 51-52
3. Estimates of SDP and DDP of West Bengal, 1993-'94 to 2000-2001, Bureau of Applied Economics & Statistics, Govt. of West Bengal, 2002, p 75
4. Manab Unnayan: Paschimbanger Jelachitra (in Bengali), by S. Dutta Roy, p 93

Education

Chapter 3

3.1 Introduction :

Education enhances the capacity of an individual to participate in the process of development. Bankura scores low on the female literacy side. The male literacy rate is 76.8 percent whereas the female literacy rate is 49.4 percent resulting into a huge gender gap of 27.4 percent. There are in fact, 688 mouzas where the female literacy rate is less than 30 percent. Though the drop-out rate in primary school is 8.1 percent, that in the upper primary is 19.00, which is definitely a source of worry. There are also issues related to quality. Let us discuss various areas

of concern in the education sector in this district.

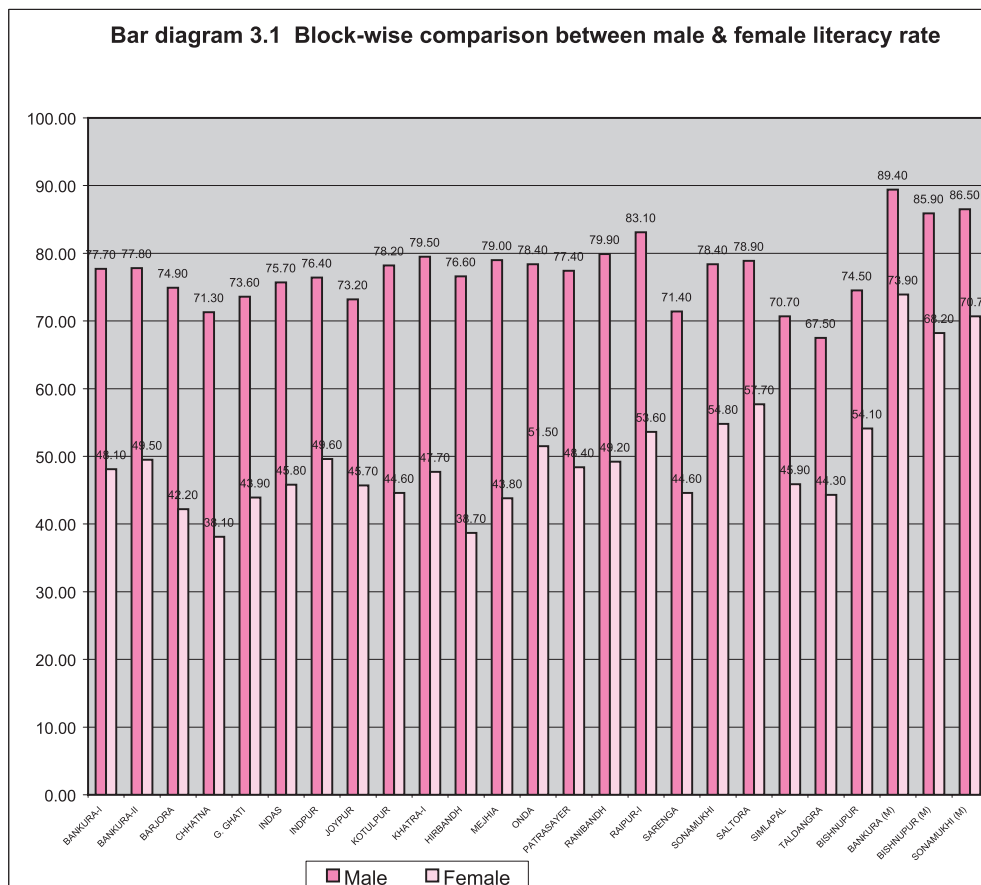
3.2 Adult literacy :

Unlike enrolment status adult literacy rate changes slowly. However it affects enrolment since it is well known that literate persons are more keen to send their children to school. We may first have a look on the block-wise male and female literacy rates obtained from Census, 2001 data in which population from the age of seven and above are considered for calculating the literacy rate (table 3.1).

Table 3.1 Literacy rate in the blocks and municipalities of Bankura as per Census, 2001 (excluding 0-6 population)

Sl. No.	Block/ Municipality	Literacy rate in percentage			Overall literacy rate
		Male	Female	Gender gap	
1	Bankura-I	77.7	48.1	29.6	63.2
2	Bankura-II	77.8	49.5	28.3	64.0
3	Barjora	77.6	51.9	25.7	65.1
4	Chhatna	74.9	42.2	32.7	58.7
5	Gangajalghati	75.7	44.8	30.9	60.8
6	Indas	74.5	54.1	20.4	64.6
7	Indpur	78.2	44.6	33.6	61.9
8	Joypur	78.4	54.8	23.6	66.9
9	Kotulpur	78.9	57.7	21.2	68.6
10	Khatra	79.5	47.7	31.8	63.9
11	Hirbandh	76.6	38.7	37.9	58.2
12	Mejhia	73.6	43.9	29.7	59.3
13	Onda	73.2	45.7	27.5	59.8
14	Patrasayer	67.5	44.3	23.2	56.1
15	Ranibandh	79.0	43.8	35.2	61.7
16	Raipur	79.9	49.2	30.7	64.9
17	Sarenga	83.1	53.6	29.5	68.7
18	Sonamukhi	70.7	45.9	24.8	58.7
19	Saltora	71.3	38.1	33.2	55.1
20	Simlapal	77.4	48.4	29	63.2
21	Taldangra	78.4	51.5	26.9	65.3
22	Bishnupur	71.4	44.6	26.8	58.3
23	Bankura Municipality	89.4	73.9	15.5	81.9
24	Bishnupur Municipality	85.9	68.2	17.7	77.1
25	Sonamukhi Municipality	86.5	70.7	15.8	78.8
Total		76.8	49.4	27.4	63.8

Source: Bureau of Applied Economics & Statistics, Government of West Bengal



Source:- Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

As can be seen the gender gap is worst in case of Hirbundh block followed by Chhatna. Incidentally these are also the blocks, which score low on the standard of living.

Though the data relates to the year 2001, there is no remarkable progress in between. Most of the Continuing Education Centres have not been functioning in this district and the commitment of the Preraks has also been far less compared to what it was in case of Voluntary Trainers of Total Literacy Campaign. Of course, in some cases self-help groups (SHGs) have made concerted efforts to improve their level of literacy but these cases are limited in certain pockets.

Actually the livelihood issues are so paramount in the poor areas in this district that there is a need to link up literacy with the issue of livelihood and other aspects of day-to-day life to make the impact sustainable.

In Bankura, there are eleven blocks where the gender gap in literacy rate is much higher in comparison to national average. These blocks are named as NPEGEL (National Programme for Education of Girls at Elementary Level) blocks and very special programme has been taken for promoting the education of girl children and to minimize the gender gap.

As is obvious, the urban areas are clearly better placed in terms of literacy vis-a-vis the rural areas.

Table 3.2 List of NPEGEL Blocks in Bankura & corresponding female literacy rate

Sl. No.	Name of Block	Number of Gram-Panchayats	Female literacy rate
1	Saltora	8	38.1
2	Hirbandh	5	38.7
3	Chhatna	13	42.2
4	Ranibandh	8	43.8
5	Mejhia	5	43.9
6	Patrasayer	10	44.3
7	Indpur	7	44.6
8	Bishnupur	9	44.6
9	Gangajalghati	10	44.8
10	Onda	15	45.7
11	Sonamukhi	10	45.9

Source:- Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

3.2 Residual illiteracy :

The district launched the Total Literacy Campaign (TLC) in the year 1990. The objective of the campaign was to achieve literacy for the age group 9-14 years and 15-50 years. The campaign started with whole-hearted support of the Panchayats, all political parties and with total involvement of the administration. The final evaluation was made in June, 1992. After completion of TLC, Post Literacy Project was initiated with the objective of helping the semi and neo-literates in strengthening and stabilising their acquired literacy skill and to create congenial atmosphere for Continuing Education Programme, which was launched in April 1999.

Table 3.3 Literacy scenario in Bankura

Total population	31,92,695
Population in (0-6) age-group	4,58,790 (14.37%)
Literacy rate of the district	63.44 %
Total literate excluding (0-6) age-group	17,34,386 (54.32%)
Total illiterate excluding (0-6) age-group	9,99,519 (31.30%)

Source:- Office of the District Magistrate, Bankura

A programme to eradicate the residual illiteracy has been taken up with the following objectives:

1. To develop a strong human capital for the development of the underdeveloped district.
2. To achieve total literacy based on the present situation
3. To give special emphasis on the 15-35 age-group with a special attention to the residual illiterates among women, scheduled castes, scheduled tribes minority communities and such vulnerable groups.

The project has been designed to cover about three lakhs of illiterates between 15-35 age-group in the Table 3.4 :

Table 3.4 Coverage of programme for eradication of residual illiteracy

Number of phase	Duration	Stage
Phase-I	3 months	Preparatory
	Next 6 months	Teaching learning process
	Next 2 months	Evaluation
Phase-II	6 months	Teaching learning process
	Next 2 months	Evaluation

Source: Office of the District Magistrate, Bankura

The learning centres are planned to be opened in those mouzas where the female literacy rate is less than 30 percent.

Evening School for drop out students at Kabirdanga in Ward No. 1 of Bishnupur Municipality

In the area of Bishnupur municipality under ward-number 1, Kabirdanga is a locality of 114 population. This is the slum where IBRAD first intervened for implementing the project (Human Development) activity. After collecting all the base line data and forming a SICO group named by Kabirdanga Mahaprabhu Manab Unnayan Dal in that slum, it was revealed that most of the children of this locality are unable to go to school as they have been engaged in stone crusher factory. SICO members informed that they are interested to send their children to school but as the primary school is far from their locality their wish was not fulfilled. But it would take some time to find a solution. After a brief discussion with all the SICO members and with the ward councilor on 23/06/06 at 6 am., the school was opened with 45 students and two teachers which brought happiness and satisfaction all over the locality. Vidyasagar Shishu Shiksha Kendra



3.1 Growing interest towards studies

has been set up for children of Kabardanga under Bishnupur Municipality .

It was decided that one evening school can be opened in the locality where the all drop out students will go for education. One SICO member, Bandana, came forward to teach those children.

The school was opened on 21/03/06 with 21 students and one teacher. After the name of Vidyasagar the school was named as Kabirdanga Vidyasagar Evening School. It opens for 5 days in a week.

Today the total number of students in this school is 30. Parents from other locality are also sending their children in this school for the better future of their child. The parents are very satisfied with the opening of evening school. With all the needed assistance from IBRAD the school, named by Rabindranath Sishu Shikha Kendra, was inaugurated by ward councillor.

The main achievements of starting the school was Gurupada Manna, the father-in-law, of the school teacher Bandana has left taking alcohol daily which posed a big problem for their family. He has realized that since the students are coming to his house for learning it would hamper a healthy environment if he takes alcohol. Thus, this school has brought consciousness and awareness among the local people in a different way making the society awaken.

3.4 Enrolment :

Progress in literacy and education depends upon the propensity of children to go to school and also to complete education at least up to the primary level. Enabling all children to obtain Primary Education is the key challenge particularly in some blocks in this district. Total out of school children in this district for primary segment (age 5+ to 9) are 17370 and for upper

primary (age 9+ to 14) it is 31564. These figures have been obtained from child register which is maintained for each Gram Sansad. The data, however, could not be validated completely and there is every likelihood that this will further go up. In terms of percentage this is 4.44 percent and 10.08 percent respectively. Table 3.5 and 3.6 give a block wise break up of out of school children.

Table 3.5 Out-of-School children in the district of Bankura (5+ to 8 + age group)
(As on 30.09.2005)

Sl. No.	Name of Block/ Municipality	Enrolment in 5+ to 8+ age group			Out of school children in 5+ to 8+ age group			Child Population in 5+ to 8+ age group			Percentage of out-of school children
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
1	Bankura I	5886	5460	11346	392	423	815	6278	5883	12161	6.7
2	Banklura II	6794	6123	12917	265	287	552	7059	6410	13469	4.1
3	Barjora	9506	8740	18246	499	517	1016	10005	9257	19262	5.27
4	Chhatna	10180	9285	19465	536	555	1091	10716	9840	20556	5.31
5	Gangajalghati	9269	8187	17456	973	1011	1984	10242	9198	19440	10.21
6	Indas	8692	8186	16878	293	303	596	8985	8489	17474	3.41
7	Indpur	8729	8521	17250	255	263	518	8984	8784	17768	2.92
8	Joypur	8559	8356	16915	121	124	245	8680	8480	17160	1.43
9	Kotulpur	10032	9716	19748	238	246	484	10270	9962	20232	2.39
10	Khatra	7008	6760	13768	168	173	341	7176	6933	14109	2.42
11	Hirbandh	4463	4103	8566	251	261	512	4714	4364	9078	5.64
12	Mejhia	4178	3904	8082	257	266	523	4435	4170	8605	6.08
13	Onda	13385	12257	25642	598	620	1218	13983	12877	26860	4.53
14	Patrasayer	11548	10702	22250	860	894	1754	12408	11596	24004	7.31
15	Ranibandh	6474	6346	12820	200	207	407	6674	6553	13227	3.08
16	Raipur	8459	8665	17124	139	143	282	8598	8808	17406	1.62
17	Sarenga	5423	5621	11044	57	59	116	5480	5680	11160	1.04
18	Sonamukhi	10606	9831	20437	347	362	709	10953	10193	21146	3.35
19	Saltora	7316	6410	13726	846	880	1726	8162	7290	15452	11.17
20	Simlapal	8320	7962	16282	152	158	310	8472	8120	16592	1.87
21	Taldangra	8276	7888	16164	144	149	293	8420	8037	16457	1.78
22	Bishnupur	10347	9436	19783	509	530	1039	10856	9966	20822	4.99
23	Bankura Municipality	5197	5720	10917	326	340	666	5523	6060	11583	5.75
24	Bishnupur Municipality	2202	2238	4440	20	21	41	2222	2259	4481	0.91
25	Sonamukhi Municipality	1400	1266	2666	65	67	132	1465	1333	2798	4.72
Total		192249	181683	373932	8511	8859	17370	200760	190542	391302	4.44

Source: Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

In blocks like Gangajalghati, Patrasayer, Saltora, Mejhia, Bankura-I the percentage of out of school children of total child population (5+ to 8+) group are 10.21, 7.31, 11.17, 6.08, 6.70 respectively. These are the blocks where percentage of the out of school children is relatively higher.

Following parameters need to be examined with respect to the enrolment scenario in this district.

1. Lack of access to school for large number of children.
2. Infrastructure.
3. Low level of completion of Primary education due to drop out & repetition.
4. Low level of learning of students.
5. Migration related problems.

Table 3.6 Out-of-School children in the district of Bankura (9+ to 13 + age group)
(As on 30.09.2005)

Sl. No.	Name of Block/ Municipality	Enrolment in 9+ to 13+ age group			Out of School Children 9+ to 13+ age group			Child Population in 9+ to 13+ age group			Percentage of out-of school children
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
1	Bankura-I	4455	3797	8252	736	766	1502	5191	4563	9754	15.40
2	Bankura-II	5375	4399	9774	743	774	1517	6118	5173	11291	13.44
3	Barjora	8013	6964	14977	944	984	1928	8957	7948	16905	11.40
4	Chhatna	7626	5511	13137	1049	1091	2140	8675	6602	15277	14.01
5	Gangajalghati	7757	5963	13720	1199	1228	2427	8956	7191	16147	15.03
6	Indas	6641	5907	12548	643	669	1312	7284	6576	13860	9.47
7	Indpur	7967	5628	13595	642	668	1310	8609	6296	14905	8.79
8	Joypur	7054	5516	12570	154	161	315	7208	5677	12885	2.44
9	Kotulpur	7251	6492	13743	266	276	542	7517	6768	14285	3.79
10	Khatra-I	6285	4406	10691	339	353	692	6624	4759	11383	6.08
11	Hirbandh	4103	2859	6962	272	285	557	4375	3144	7419	7.41
12	Mejhia	3648	2857	6505	540	563	1103	4188	3420	7608	14.50
13	Onda	10779	7987	18766	1469	1528	2997	12248	9515	21763	13.77
14	Patrasayer	7562	5855	13417	1179	1228	2407	8741	7083	15824	15.21
15	Ranibandh	6034	4296	10330	380	397	777	6414	4693	11107	7.00
16	Raipur-I	9181	7389	16570	256	266	522	9437	7655	17092	3.05
17	Sarenga	6077	4590	10667	301	314	615	6378	4904	11282	5.45
18	Sonamukhi	5819	4587	10406	840	875	1715	6659	5462	12121	14.15
19	Saltora	4812	3534	8346	1158	1207	2365	5970	4741	10711	22.08
20	Simlapal	7143	5906	13049	349	366	715	7492	6272	13764	5.19
21	Taldangra	5733	4996	10729	434	453	887	6167	5449	11616	7.64
22	Bishnupur	5952	4621	10573	888	927	1815	6840	5548	12388	14.65
23	Bankura Municipality	6268	5282	11550	318	333	651	6586	5615	12201	5.34
24	Bishnupur Municipality	3227	3044	6271	167	176	343	3394	3220	6614	5.19
25	Sonamukhi Municipality	2545	1909	4454	200	210	410	2745	2119	4864	8.43
	Total	157307	124295	281602	15466	16098	31564	172773	140393	313066	10.08

Source: Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

The first step is increasing access to primary school and to provide adequate infrastructure. Bankura suffers from poor access to social services due to low population density, which is 464 per square km. compared to the state average of 904 per square km.

In addition there are natural barriers and small habitations in forest areas. There are 64 backward mouza in this district where there is no primary school or Sishu Siksha Kendra (SSK) within 1 km. (Table 3.7).

Table 3.7 Backward mouzas and distance from the nearest primary schools

Name of Block	Gram Panchayet	Name of mouza	Distance to nearest primary school (in km.)
Bankura – I	Andharthole	Paharia	2
Bankura – II	Junebedia	Chhoto kaljharia	2
Bankura – II	Narrah	Chingra goalsole	2
Barjora	Ghutgoria	Bara pukuria	2
Bishnupur	Ajodhya	Bansh kopa	4
Bishnupur	Belsulia	Hulmara	2
Bishnupur	Dwarika Gosainpur	Kelemele	4
Bishnupur	Dwarika Gosainpur	Kushtara	2
Bishnupur	Morar	Khuliamuri	4
Bishnupur	Morar	Kural bari	2
Chhatna	Arrah	Guniada	3
Chhatna	Arrah	Khudra banagram	3
Chhatna	Dhaban	Upargara	2
Chhatna	Jamtora	Dhengagora	2
Chhatna	Jhunjka	Banjuria	1.5
Chhatna	Jhunjka	Gopalpur	2
Chhatna	Jhunjka	Jirra kelai	2
Chhatna	Jirrah	Jhikuria	2
Chhatna	Jirrah	Khyerboni	2
Gangajalghati	Banasuria	Gobindapurbaid	0.1
Gangajalghati	Banasuria	Narayanpur	1.5
Gangajalghati	Gobindadham	Brindabanpur	1.5
Gangajalghati	Lachhmanpur	Bankajura	2
Hirbandh	Baharamuri	Shyampur	1.5
Hirbandh	Hirbandh	Khalraydihi	2
Indpur	Bheduasole	Kharkanali	2
Indpur	Gourbazar	Karkota	2
Indpur	Hatagram	Chaka	1.5
Indpur	Hatagram	Dakshin kendbana	4
Indpur	Hatagram	Narasing dhara	1.5
Joypur	Routhkhanda	Hajipur	2
Joypur	Routhkhanda	Padumpur	3
Khatra	Dahala	Goala danga	1.5
Khatra	Gorabari	Khari dungri	2
Kotulpur	Madanmohanpur	Kankara	2
Onda	Chingani	Bet jhuria	3
Onda	Chingani	Dharsona	2
Onda	Chingani	Rajduha	2
Onda	Churamonipur	Pitambarpur	1.5
Onda	Kalyani	Kharigara	1.5
Onda	Lodna	Mukundabati	1.5
Onda	Ramsagar	Radha madhabpur	3
Onda	Ratanpur	Chakuparsol	3
Patrasayer	Balsi-II	Hajra bandh	1.5
Patrasayer	Hamirpur	Kendgare	1.5
Patrasayer	Kushdwip	Dihilapur	2.5
Patrasayer	Narayanpur	Jaljala	1.5
Raipur	Shyamsundarpur	Jagannathpur	1.5
Ranibandh	Barikul	Lep-am	6

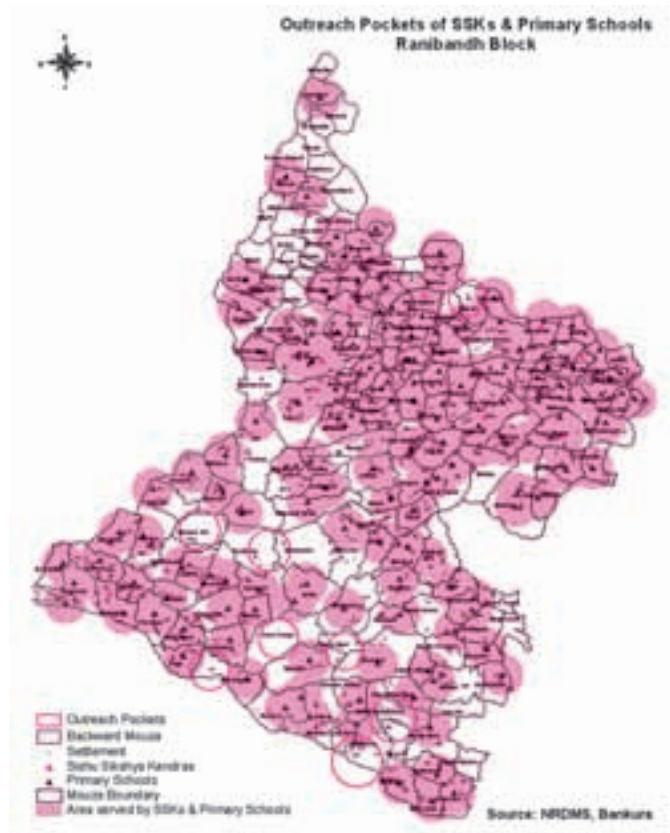
Name of Block	Gram Panchayet	Name of mouza	Distance to nearest primary school (in km.)
Ranibandh	Barikul	Singlahar	2
Ranibandh	Puddi	Barunia	3
Ranibandh	Puddi	Gosaindih	2
Saltora	Bamuntore	Krishnapur	2
Saltora	Salma	Dahuka	3
Saltora	Tiluri	Chakbaga	1.5
Saltora	Tiluri	Siakuldo	2
Simlapal	Bikrampur	Bhudrubad	3
Simlapal	Dubrajpur	Bagnada	2.5
Simlapal	Machatora	Memouli	4
Simlapal	Machatora	Suknabad	4
Sonamukhi	Dhansimla	Amghata	5
Sonamukhi	Dhansimla	Indkata	5
Sonamukhi	Hamirhati	Paschim nabasan	3
Taldangra	Panchmura	Chakjambedia	1.5

Source: Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

This has further been analysed using GIS-based habitation mapping. An attempt has been made to map the location of primary schools and SSKs including the layer showing habitation (from Survey of India toposheet). The gap areas have been identified which in turn will be validated from field verification. The exercise has been completed for all the blocks. Here an illustration has been made for Ranibandh block. As can be seen there are more uncovered areas in south Ranibandh which has more forest. New Sishu Siksha Kendra (i.e. non-formal schools) may be proposed using this methodology in the gap areas.

Even for the mouza where the distance of a primary school/SSK is less than 1 km., small children find it difficult to attend because of presence of, say, a rivulet which may be full in the rainy season or a busy road. It is a fact that parents are generally very interested in sending these children to school but are at the same time are worried about their security.

Similarly there are 23 backward mouza in this district where the nearest upper primary school or a Madhyamik Shiksha Kendra (MSK) is located at a distance of more than 3 km. The list is shown below on table 3.8.



Map 3.2 Outreach pockets of Primary Schools and Sishu Siksha Kendras in Ranibandh block

Table 3.8 Block level data on distance from government-run Upper Primary school

Name of Block	Gram Panchayet	Name of mouza	If no Upper Primary School, then distance of the nearest Upper Primary School (in km.)
Chhatna	Jhunjka	Banjuria	5
Joypur	Routhkhanda	Padumpur	4
Onda	Chingani	Bet jhuria	7
Onda	Chingani	Dharsona	5
Onda	Chingani	Rajduha	7
Onda	Kalyani	Kharigara	6
Onda	Ratanpur	Chakuparsol	4
Patrasayer	Kushdwip	Dihilapur	5
Patrasayer	Balsi-II	Hajrabandh	4
Ranibandh	Barikul	Lep-am	13
Ranibandh	Puddi	Barunia	10
Ranibandh	Puddi	Gosaindih	14
Saltora	Salma	Dahuka	4
Saltora	Tiluri	Siakuldoha	5
Simlapal	Bikrampur	Bhudrubad	7
Simlapal	Machatora	Memouli	8
Taldangra	Panchmura	Chakjambedia	2
Bishnupur	Ajodhya	Bansh kopa	4
Bishnupur	Belsulia	Hulmara	3
Bishnupur	Dwarika Gosainpur	Kelemele	3
Bishnupur	Dwarika Gosainpur	Kushtara	2
Bishnupur	Morar	Khuliamuri	3
Bishnupur	Morar	Kural Bari	2

Source:- Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

As can be seen there are mouza where the distance is as high as 14 km. Large distance in general a big impediment and is more so for a girl child.

Infrastructure is definitely a very important issue. The national norm is to provide 10 square feet for each child. As per the DISE 2005 data* there are 2188 primary schools in this district where space-student ratio is less than 7 sq.ft. All the schools have been indexed as per

the space-student ratio in this district and the schools having the worst ratio is being given priority for additional class room under the Sarva Siksha Abhijan (SSA).

The block wise number of primary schools where the space-student ratio is less than 7 sq. ft. is indicated below in Table 3.9. During 2005-'06, 624 schools have been covered.

* It is conducted once in a year in each district to build what is known as the District Information on School Education (DISE).

Table 3.9 Space-student ratio in Primary Schools

Name of the Block	Number of school where space-student ratio is less than or equal to 7 sq. ft.	No of additional class rooms provided during the year 2005-'06
Bankura-I	55	22
Bankura Municipality	54	14
Bankura-II	86	25
Chhatna	123	22
Barjoura	122	25
Gangajalghati	103	19
Bishnupur	95	37
Bishnupur Municipality	13	1
Indas	86	37
Indpur	111	20
Joypur	97	36
Kotulpur	118	50
Hirbandh	63	22
Khatra	78	30
Mejhia	32	18
Onda	159	26
Patrasayer	93	36
Ranibandh	90	21
Raipur	105	32
Sarernga	92	19
Sonamukhi	110	32
Saltora	79	21
Simlapal	113	31
Taldangra	96	26
Sonamukhi Municipality	15	2
Total	2188	624

Source:- Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

In municipal areas there are a large number of primary schools which are having space problem. A serious negotiation with community is necessary in this regard so that private land is obtained for setting up of schools. In extreme cases, Land Acquisition can be the only answer.

Migration is another big issue in this district. There is a seasonal migration of 1-6 months from this district in search of livelihood. Normally young children accompany their parents during migration and therefore miss out the vital primary education.

In view of the bottleneck indicated above following interventions have been taken up to improve enrolment in this district :

- Reduction of the cost of sending children to

schools by giving incentives like Free Textbooks, School Uniform etc. has been found to be effective.

- The recent study reveals that the demand for school attendance has been created by Mid-day Meal Programme and has significantly increased the attendance of pupils.
- The demand for education may be enhanced through active community and parents' participation. Therefore the mother-teachers' association, Village Education Committee (VEC) needs to be activated. The construction of school class rooms/toilets have been entrusted to VEC in this district and the results are very satisfactory. They have been able to construct structures with more floor area with the same amount.

- Attainment of high level of learning also requires requisite tools for teaching and learning i.e. Teaching and Learning Material (TLM) is to be used at the time of teaching. Unfortunately most of the achievement tests are held at the end of the year rather than periodic test of students' achievement. Use of TLM is generally less in class room interactions.

The issue of girl child :

Achieving Universal Primary completion of education is as important as achieving universal Primary enrolment. The main reason of out of school children

is often household economic factors. Poverty finally is the key issue and is more so for this district with high migration in search of livelihood.

A study was conducted to understand the reasons behind out-of-school girl children of 5+ to 14 age-group in Lakshmanpur Gram-Panchayat in Gangajalghati block. The picture which has emerged reveals similar story. 94 percent school girls (5+ to 8+) in primary level and 100 percent out of school girls (9+ to 14) in upper primary level have been found to have left schools due to poverty, household works and other factors.

Table 3.10 Out-of-school girls

Name of the Block	Name of the Gram-Panchayat	Reasons	Number of out of school Girls		
			5+ to 8+	9+ to 14	Total
Gangajalghati	Lakshmanpur	Economic Problem	190	235	425
		Household Works	110	50	160
		Others	20	0	20
		Total	320	285	605

Source: Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

There are of course some cases where distance is a problem but the main reason is economic. A vocational training programme has been initiated in that area for out of school girl children. There is also a plan to start a community library to ensure reading skill in girl children which will equip them to improve their learning. There is also a need to start Rabindra Mukta

Vidyalaya – an initiative under Sarva Siksha Abhijan on the distance learning methodology with flexible timings suited to the out of school girl children. However, the state norm on minimum number of girl children for opening such vidyalaya should be raised in view of the lower population density.

Community village library in Raipur block — a case study

Pratham, an NGO, recently collaborated with two West Bengal based NGOs, Calcutta Foundation and Inspiration to pilot a “Library based accelerated reading programme”, in this district.

The objective of the programme is to impart reading skills/ enhance reading ability of every child between 4 and 14, of every target village and supplement the efforts of the Government in universalising education.

The selection of blocks and panchayats were made by Inspiration. The villages were recommended by the panchayats. The preparatory work to start the Community Village Libraries began with a meeting with the BDO of Raipur and visits to each and every panchayat, by a member, each from Calcutta



3.2 A village rural library

Foundation, Inspiration and Pratham, where they met the Panchayat members, village elders and of course the children to assess the need of starting the libraries. The response was overwhelming. They not only welcomed the endeavour, but also helped with the selection of the village community volunteers to run the village community libraries.

In Bankura, four villages of Raipur block have been identified for piloting the programme.

After the block training in Raipur which was held in mid May, a door to door survey was carried out in each village, together with village mapping.

Table 3.11 Baseline test for Raipur

Village	Number of children tested	Number of readers	Number of children able to do subtraction
Phulkusma colony	46	23	23
Jashpara	131	105	119
Simli	260	118	83
Sarigari	137	92	89
Siarbeda	138	80	81

A base line test was also carried out at the time of survey. Children were tested in two areas, reading of simple paragraphs and simple two digit subtractions. Every child in the survey agreed to be tested. As can be seen from the above result there has been substantial gap in quality learning in these villages.

Table 3.12 Enrolment per library (As on 1st August, 2006)

Village/Location of Library	Total Number of children (3-14 yaers)	Enrolled in Libraries till 31 st July, 2006	Average daily attendance
Phulkusma colony	147	144	80
Jashpara	171	110	75
Simli	324	156	55
Sarigari	204	147	60
Siarbeda	221	100	60

In two months of implementation there has been remarkable support of the panchayat and village elders

together with substantial daily attendance of demanding children.

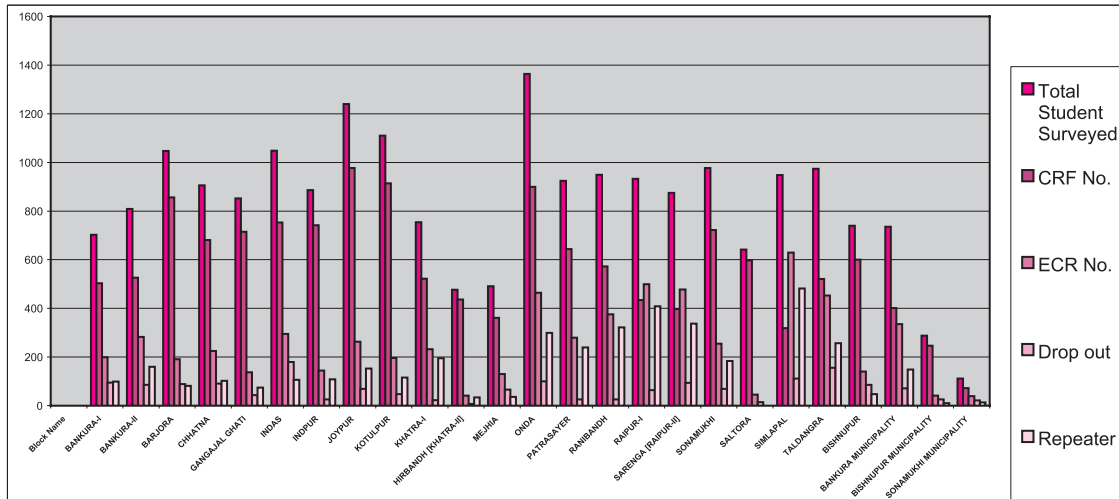
Success stories

Tanushree Dey, aged 12 years, Std II (Jashpara): After 2 months, she cannot only read stories, but also has learnt to write words without referring to books and subtract

Rashu Duley, aged 9 years, Std II, (Phulkusma): “Now I can read fluently and also subtract. I love coming here more than going to school-because I can draw and sing”.

We may now make an attempt to understand drop out scenario in this district. A study through sample survey had been conducted to understand the dropout scenario

in different blocks and the results are indicated on Table 3.13:



Bar diagram 3.3 Block wise analysis for primary education

CRF:- Completion rate in four years, ECR:- Ever completion rate

Table 3.13 Block and municipality-wise scenario of primary education (as on 30.04.2004)
(as revealed from COHORT sample study)

Name of the Block/ Municipality	Total Student Surveyed	Students who have completed primary education in four years		Students who have completed primary education in more than four years		Name of dropout students in				Total number of drop-out students	Percentage of drop-out students	Number of repeaters				Total number of repeaters	Percentage of repeaters
		No.	%	No.	%	First year	Second year	Third year	Fourth year			First year	Second year	Third year	Fourth year		
Bankura-I	702	503	72	199	28	78	4	13	0	95	14	51	28	17	3	99	14
Bankura-II	809	526	65	283	35	35	39	12	0	86	11	110	27	17	6	160	20
Barjora	1047	856	82	191	18	47	33	9	0	89	9	49	21	9	3	82	8
Chhatna	906	681	75	225	25	23	41	26	1	91	10	44	33	18	7	102	11
Gangajalghati	852	715	84	137	16	18	13	12	0	43	5	18	24	27	5	74	9
Indas	1048	753	72	295	28	94	48	37	0	179	17	71	20	15	0	106	10
Indpur	886	742	84	144	16	3	14	8	1	26	3	39	23	32	14	108	12
Joypur	1240	977	79	263	21	49	13	6	1	69	6	132	20	1	0	153	12
Kotulpur	1110	914	82	196	18	18	13	15	1	47	4	83	16	13	4	116	10
Khatra	754	522	69	232	31	3	10	10	0	23	3	66	89	32	8	195	26
Hirbandh	477	436	91	41	9	0	6	1	0	7	1	0	2	32	0	34	7
Mejhia	491	361	74	130	26	9	33	24	0	66	13	5	11	17	3	36	7
Onda	1364	900	66	464	34	49	41	9	1	100	7	142	52	94	11	299	22
Patrasayer	924	644	70	280	30	13	7	5	1	26	3	191	29	17	2	239	26
Ranibandh	949	573	60	376	40	18	2	6	0	26	3	238	35	48	1	322	34
Raipur	933	434	47	499	53	43	11	10	0	64	7	289	59	43	17	408	44
Sarenga	875	397	45	478	55	27	53	14	0	94	11	249	58	17	13	337	39
Sonamukhi	977	722	74	255	26	47	16	4	2	69	7	146	19	14	5	184	19
Saltora	642	597	93	45	7	5	9	0	0	14	2	0	0	0	0	0	0
Simlapal	948	319	34	629	66	43	39	29	0	111	12	320	58	90	14	482	51
Taldangra	974	521	53	453	47	41	81	33	1	156	16	202	30	21	4	257	26
Bishnupur	740	600	81	140	19	57	21	5	3	86	12	15	14	17	1	47	6
Bankura Municipality	736	401	54	335	46	47	15	9	0	71	10	77	48	21	3	149	20
Bishnupur Municipality	288	247	86	41	14	2	3	21	0	26	9	1	4	3	2	10	3
Sonamukhi Municipality	111	72	65	39	35	13	7	2	0	22	20	8	4	1	0	13	12
Total	20783	14413	69	6370	31	782	572	320	12	1686	8	2546	724	616	126	4012	19

Source: Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

As can be seen the dropout is the maximum in the first year. It is highest in Sonamukhi municipality followed by Taldangra and Indus. For Sonamukhi it is expected that switching to private schools might be one of the reasons for the high dropout. Completion rate is worst in Simlapal followed by Sarenga and Raipur. Similarly the percentage of repeaters is highest for Simlapal followed by Sarenga and Raipur.

The problem of dropout and repetition is linked closely

with quality of education. Poor quality schooling reduces completion rate. Even for upper primary level the dropout rate in class V is highest. The main reason is found to be the poor level of learning of Class IV children.

Teacher-student ratio is definitely an important factor in imparting quality education. Let us have a look at the teacher-student ratio in different levels of education in this district.

Table 3.14 Block-wise pupil-teacher ratio at the levels of primary, middle and higher education (2003-2004)

Block	Primary				Middle				High			
	Institution	Student	Teacher	Pupil Teacher Ratio	Institution	Student	Teacher	Pupil Teacher Ratio	Institution	Student	Teacher	Pupil Teacher Ratio
Bankura-I	105	10153	262	38.7	4	910	26	35	8	3754	103	36.4
Bankura-II	123	11779	320	36.8	4	1279	35	36.5	8	3860	100	38.6
Chhatna	239	16223	483	33.5	6	1564	39	40.1	11	6116	129	47.4
Saltora	119	10673	250	42.6	3	672	19	35.3	9	3889	112	34.7
Mejia	72	7477	177	42.2	2	863	12	71.9	5	2887	63	45.8
Gangajalghati	162	14791	369	40.0	6	1803	38	47.4	11	6117	145	42.1
Barjora	190	17532	474	36.9	4	911	26	35.0	14	7392	170	43.4
Onda	243	22586	617	36.6	3	407	19	21.4	17	11096	235	47.2
Indpur	166	16030	380	42.1	10	1939	65	29.8	10	5732	135	42.4
Khatra	116	11180	283	39.5	4	889	25	35.5	9	5674	118	48.0
Hirbandh	90	8008	180	44.4	4	998	26	38.3	7	4020	93	43.2
Ranibandh	155	12899	326	39.5	4	712	25	28.4	8	4759	103	46.2
Taldangra	164	15820	459	34.4	8	2467	51	48.3	10	4760	133	35.7
Simlapal	171	16227	385	42.1	8	2141	52	41.1	10	4994	127	39.3
Raipur	153	13334	350	38.0	11	2728	70	38.9	16	10002	221	45.2
Sarenga	156	13994	362	38.6	3	1293	19	68.0	8	5631	112	50.2
Bishnupur	147	14210	400	35.5	3	947	19	49.8	8	6248	121	51.6
Joypur	157	15267	519	29.4	6	1554	26	59.7	7	4509	98	46.0
Kotulpur	159	17176	539	31.8	6	1698	25	67.9	13	7846	187	41.9
Sonamukhi	153	15599	385	40.5	3	1058	19	55.6	5	3772	69	54.6
Patrasayer	140	17687	369	47.9	6	1427	27	52.8	7	2002	91	22
Indus	141	15520	404	38.4	8	1777	51	34.8	6	3116	78	39.9

Source: Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

Though the overall pupil-teacher ratio in primary education is 37.4, it is seen that in many blocks the ratio is much worse. A proper rationalization of distribution of teachers is essential in order to bring the quality of learning to a reasonable level.

There are also non-formal education systems such as Shishu Shiksha Kendra, Madhyamik Shiksha Kendra functioning in this district. A study suggests that the quality of learning in Shishu Shiksha Kendra (SSK) and

Madhyamik Shiksha Kendra (MSK) is better than that in primary schools and upper primary schools. The dedication of contractual Siksha Sahayika in SSK and Samprasarak in MSK is more than the regular teachers and that may be one of the reasons. Actually the Sahayika/Samprasarak are from the same area and are generally committed and responsible to the community. The coverage of students by these non-formal systems is far less as the table 3.15 suggests.

Table 3.15 Block wise total number of Shishu Siksha Kendra (SSK) & total number of learners (As on 30.09.2005)

Name of Block	No. of SSK	No. of boys	No. of girls	Total
Bankura-I	18	442	498	940
Bankura-II	21	425	481	906
Barjora	21	546	556	1102
Bishnupur	22	548	525	1073
Chhatna	16	403	378	781
Gangajalghati	22	589	564	1153
Hirbandh	11	267	271	538
Indpur	19	438	452	890
Indus	26	607	657	1264
Joypur	34	660	718	1378
Khatra	14	436	457	893
Kotulpur	27	632	664	1296
Mejia	6	161	151	312
Onda	33	862	875	1737
Patrasayer	29	825	905	1730
Raipur	21	532	492	1024
Ranibandh	9	194	217	411
Saltora	15	331	357	688
Sarenga	15	334	335	669
Simlapal	21	575	608	1183
Sonamukhi	23	600	616	1216
Taldangra	24	446	527	973
Total :	447	10853	11304	22157

Source: Office of the District Panchayat & Rural Development Officer, Bankura

Table 3.16 Block wise enrolment in Madhyamik Siksha Kendras (MSK) (As on 30.09.2005)

Sub-Division	Sl. No.	Block	No. of MSK	Class-V	Class-VI	Class-VII	Class-VIII	Total for all classes
Bankura Sadar	1	Bankura - I	2	120	108	97	85	410
	2	Bankura - II	2	95	86	78	36	295
	3	Barjora	2	100	92	82	35	309
	4	Chhatna	2	110	98	86	0	294
	5	Gangajalghati	3	185	165	147	81	578
	6	Saltora	3	137	124	114	75	450
	7	Onda	6	314	275	208	85	882
	8	Mejia	2	130	118	107	28	383
Bishnupur	9	Bishnupur	4	198	178	160	35	571
	10	Joypur	4	243	220	201	78	742
	11	Kotulpur	3	147	133	120	81	481
	12	Sonamukhi	5	292	267	242	105	906
	13	Patrasayer	9	385	348	320	76	1129
Khatra	14	Indus	3	155	141	125	29	450
	15	Ranibandh	7	370	338	306	58	1072
	16	Taldangra	6	275	253	230	103	861
	17	Simlapal	1	45	37	33	26	141
	18	Sarenga	1	60	54	45	28	187
	19	Raipur	4	244	223	42	30	539
		Grand Total	69	3605	3258	2743	1074	10680

Source: Office of the District Panchayat & Rural Development Officer, Bankura

3.5 Mid-day meal programme in Bankura*

Launched primarily with a very small number of selected primary schools (100 to be exact) of Ranibandh and Indus blocks of the district in January 2004, the Cooked Mid-day Meal programme took a remarkably quicker pace to cover all the primary schools and Sishu Siksha Kendras (SSK) by March 2005. And, at the time of writing this brief account of the Mid-day Meal programme in the district preparations were reportedly going on in full swing to overcome the difficulties to cover the upper primary and high schools and Madhyamik Sishu Siksha Kendras (MSK) under the scheme. As regards the number of children provided with this immensely important entitlement was 3,44,746 (83.25 percent of the children studying in primary classes) from 3460 primary schools and 453 SSKs. The district administration has reportedly made a plan to implement with priority - to extend this opportunity to the rest 69,397 children who were enrolled in the upper primary and high schools and MSKs (in class 5).¹

The Plan of Implementation

The strength of the programme lies, perhaps in its planning which made the implementation procedure much simpler. As such, the implementation of the Mid-day Meal programme in West Bengal is quite instructive in itself – there have been the strengths as well as the weaknesses, which are discussed elsewhere.² Nevertheless, one of the major strength of the programme seems to be the flexibility in the operational aspects of the programme. With a general guideline provided by the state government (which is again based on the central guideline) the different district administrations developed their own strategies of

implementation. The diversification in planning the implementation, however, produced mixed results: there have been large variations in the degree of effectiveness of the plans. The plan adopted for implementation in Bankura is much straight forward in nature that allows the various implementing constituents (block, school, etc.) larger space for focussing on actual works than on the bureaucratic formalities. According to the plan, the grain and fund are made available to the schools on a regular scale. The actual implementation (accounts related to number of children provided with meal, expenditure, and so on) is reported back to the District Administration through a very simple format. Also the implementation procedure made much larger room for the SHGs to get involved in the programme in a bigger way – not only cooking, but also procuring the vegetables and ingredients, etc. As a result, most of the teachers interviewed by us, unlike in some other districts, maintained that they did not have to sacrifice the teaching and learning activities for the Mid-day Meal programme.

The district administration was also found to be much active in making provision of cooking sheds in the primary schools and SSKs. A co-ordinated linkage of various departments has made it possible to establish kitchen sheds in 3298 primary schools and 225 SSKs. Rest of the institutions would be covered within 2006.

The Impact

That the programme in Bankura districts has been following the countrywide trend³ of exerting several impacts on child nutrition and education was re-affirmed by different stakeholders, viz. parents, teachers, children and others. While the major outcome of the

* **NOTE:** This study has been conducted by Pratichi trust. Earlier, Pratichi has carried out a study on the mid-day meal programme in Birbhum district in 2004, the usefulness of which has been recognised by the state and central Government and other agencies. The present study is based on a visit to fifteen primary schools across three blocks of the district (Bankura I, Mejhia, and Hirbandh) and also the findings of the study carried out by the Sarva Siksha Abhiyaan, Bankura.

¹ As a general practice in West Bengal, most of the primary schools have classes up to 4th standard and 5th standard is generally taught in upper primary and high schools and MSKs. The main difficulty of implementing the scheme in these schools is the attachment of the highest primary class with the classes above 5 which are not entitled to benefit from the cooked meal programme. How could only the class 5 children be served the meal ignoring the presence of others who are equally hungry is a practical problem.

² Rana, Kumar, (2005), 'Food for Thought', *The Little Magazine*, Vol. 6, Issue 1 & 2, Delhi. Also, Pratichi Research Team (forthcoming),

³ Dreze Jean and Aparajita Goel (2003), 'Future of Mid-Day Meals', *Economic and Political Weekly*, Vol XXXVIII, No. 44, November 1

programme was the increase in the level of attendance of the children and teachers, there have been several other influences of far reaching effect.

The increase in the rate of attendance is a critically important issue, and in Bankura district this achievement indicates a much bigger advancement. To illustrate, Bankura has a high concentration of socially and economically backward communities. The Scheduled Caste (SC) and the Scheduled Tribe (ST) population consist about 41 percent of the total population – SC 31 percent and ST 10 percent. Again, the socio-economic level of the SC communities of Bankura is much below the state average. While, according to the 2001 Census, the literacy rate of the SCs in West Bengal is 59 percent, the corresponding figure for Bankura is a meagre 43 percent (SC female literacy being appallingly low – 27 percent). Again, while the state average of proportion of agricultural labourer to main workers among the SCs in West Bengal is about 38 percent, the figure for Bankura district shows a much higher percentage (60) of SC population engaged as agricultural labourer. Even the condition of the STs in Bankura is marginally better than the SCs. The literacy rate among the STs in Bankura is about 50 percent (female literacy being 29 percent), which is considered to be very poor but better than the state average (43 percent). A large proportion of the STs in the district are engaged as agricultural labourers (53 percent of the main workers).⁴ The particular socio-economic background of the SC and ST communities of the district has added enormously to the relevance of the Mid-day Meal programme. The success of the programme in raising the level of attendance of the children is clearly linked with the uplift of the disadvantaged groups in terms of realising the educational facilities in an effective way.

No wonder thus, that while the increase in the level of attendance among the caste Hindu children veered around 10 percent, the corresponding figures for the SC and ST children were much higher – 18 percent and 21 percent respectively. This clearly relates the effectiveness of the programme with bringing the children of the disadvantaged groups into the realm of primary education who suffered from the traditional weakness of virtual inaccessibility of primary schooling.

At the same time the programme has seemingly linked itself with the success related to eradicating classroom hunger as well as under nutrition among the children of the underprivileged groups. Many of the parents and children have been seeing this programme as a major state intervention in their favour.

Aside from these vital advancements there have been several other impacts of the intervention. The increased rate of attendance of the children – and in many cases teachers – has had a positive role in the functioning of the schools. Barring a few exceptions all the schools visited were seen to be running in schedule keeping the teaching and learning activities in the centre. This clearly nullifies the anticipation of a larger section of the media, intelligentsia, relatively richer parents and others who predicted a total collapse in teaching and learning activities.

In addition, the programme has achieved some major successes in reducing the gap between the different caste hierarchies. At the initial phase of the implementation of the programme some of the primary schools of Bankura hit the headlines owing to their encountering of some conflicts based on caste line. Any keen social observer knows how obvious caste discriminations are in a society with strong class-caste compatibility, and how various social interventions could reduce such discriminations. The Mid-day Meal programme seems to have offered an opportunity, however limited it may be, to reduce the sense of distance between the children of different social groups. In many of the schools, teachers maintained that the high caste children have started sharing the food with others, shredding off their earlier inhibitions. In some schools some children were said to have been following the instructions of their parents as not to share the food with the children of *chhotolok* families, but only in the days when the food was not delicious: however strict the instructions might be, the high caste children were seen to defy them when a delicious meal (with eggs, fish or meat) was served.

Aside from the above, the programme seems to have some other impacts, viz., the expansion of opportunities of gainful employment among the women organized in self-help groups. As such the remuneration they receive as cooks is much less than just: it is much lower than

4 Census of India (2001), *Primary Census Abstract, West Bengal, SC&ST*

the declared minimum wage and calls forth a restructuring at the state and central level. Yet, the involvement in the programme has certainly created larger scope of income generating activities for the women in the form of supplying ingredients (fish, vegetables, eggs, spices, etc.) to the schools, not only by procuring from market but also by producing the same.

Of the various positive results of the programme one of the major advancement certainly deserves a mention: the programme, as across the state, has helped the primary education system attracting larger public attention. Most of the teachers said that on the one hand it had made the parents and other members of the public keener on the functioning of the primary schools. On the other it has helped dragging the attention of the authorities towards the primary schools some of which were not even visited by any official for two-three years by any official. As a villager pointed out, “now, even the District Magistrate has also visited the village.” Needless to mention, a visit by the District Magistrate to a geographically remote village, inhabited by very poor, was an event for the villagers.

Complaints on some problems

It is not, however, free from hindrances. There have been several problems that the implementing agencies in the district have to take suitable measures to solve. While some of the problems have to be addressed at the centre and state level some of them could certainly be taken care of at the district and locality level.

Let's take up the problems arose of the central design. The total schooling days as per the list provided by the District Primary School Council were 248, but the provision made by the central government for the meal to be served was for 220 days. Again, in several schools complaints were raised that the quantity of meal served was not up to the need of the children. Both the cooks and teachers reported that the allotted 100 grams of rice per child was found inadequate for a large section of the children, and it was demanded that the quantity be increased. Similar demands were also heard in many other schools across the state. Also most of the teachers demanded an increase in the conversion cost (which was Rs 2 per child, and again from which 10 paise was deducted for paying the cooks). The third complaint relates to the perceived injustice towards the cook, who are paid a pittance, which was much less than the

declared minimum wage. The teachers and some parents also supported the cooks and demanded that the cook be paid at least the minimum wage for the manual labourers fixed by the government.

While the above problems need the attention of the central and state governments some of the problems were found to be related with the local dynamics and programme implementations. One of the problems of much serious nature, as has been the case across the state, appeared to be the hindrances and complications concerning the appointment of cooks. Owing to the severe want of employment opportunity the programme was seen by a large number of women as a prospect, however meagre the remuneration might be. This desperation for gainful employment was found to have led to competition and eventually conflicts among the women that, in some places, even resulted in stopping the programme. In some places, the local party-political dynamics had reportedly played a counterproductive role. These problems need to be sorted out with prompt and resolute actions.

Secondly, in some cases the local authorities seem to have failed to understand the spirit of the programme. This guided them to implement the programme in a mechanical manner. For example, the programme was found not to be in operation in some of the schools in the month of May, though the schools were open. When enquired about the fact an official said that he was following the norm that provided meals for 10 months in the year. Unfortunate as it was the official did not consider adjusting the days of stopping meals with the vacations and other holidays. Similarly, while some of the blocks have made excellent use of the funds available for establishing kitchen sheds some seemingly could not overcome the bureaucratic hangover that resulted in a lacklustre construction of the kitchen sheds which were far too inadequate to serve the purpose. Indeed, we have seen some schools to abandon the newly built kitchen sheds, as they did not even have any ventilation.

Thirdly, the programme as a whole and the supervision and monitoring system in particular seems to be severely understaffed (this, nevertheless, has larger connection with the state level policies). There is probably a need for serious consideration on this aspect in order to fortify the programme from probable damages and run it more effectively.

Table 3.17 Statement of enrolment vis-à-vis month wise sub-allotment of mid-day meal rice for the year 2006 – 2007 for the month of July, 2006

Sl. No.	Block/ Municipality	Primary and Upper Primary Schools			MSK		SSK		Schools run by Local body		Total enrol- ment	Rice allotted for the month of July (in Qtl.)
		Number of Schools	Enrolment		Number	Enrol- ment	Number	Learners	Number	Enrol- ment		
			Class I-IV	Class V								
1	Bankura-I	119	9376	2049	2	120	18	940			12485	222.86
2	* Bankura-II	136	11136	2211	2	95	21	898			14340	95.00
3	Chhatna	262	16068	3353	2	110	16	820			20351	363.27
4	Gangajalghati	185	14727	3078	3	185	22	1147			19137	341.60
5	Saltora	134	10469	2343	3	137	16	725			13674	244.08
6	* Barjora	214	17018	3006	2	100	21	1102	1	84	21310	300.00
7	Onda	269	22581	4661	5	264	33	1734	1	280	29520	526.93
8	Mejhia	81	7203	1326	2	130	6	312			8971	160.13
9	Khatra	132	11314	2567	0	0	15	956			14837	264.84
10	Hirbandh	103	7542	1933	0	0	11	544			10019	178.84
11	* Indpur	192	15700	3379	0	0	19	899			19978	296.61
12	Raipur	217	16328	4464	1	76	21	1027			21895	390.83
13	Sarenga	135	10137	2710	1	60	15	679			13586	242.51
14	* Simlapal	194	15520	3159	1	45	21	1190			19914	255.46
15	* Taldangra	187	15007	2738	6	275	25	1009			19029	139.00
16	Ranibandh	171	12394	2848	7	370	10	461	1	162	16235	289.79
17	Bishnupur	164	14268	2945	4	198	22	1087			18498	330.19
18	Sonamukhi	167	15514	2687	5	292	25	1309			19802	353.47
19	* Patrasayer	159	17719	3309	9	410	29	1800			23238	414.80
20	* Indus	162	14640	3233	3	155	26	1260	1	215	19503	348.13
21	Joypur	176	14576	2951	4	243	34	1391			19161	342.02
22	Kotulpur	184	17132	3421	3	147	27	1295	1	66	22061	393.79
23	Bankura Municipality	99	10231	2704	0	0	0	0	11	580	13515	241.24
24	Bishnupur Municipality	40	3615	1505	0	0	0	0	1	60	5180	92.46
25	Sonamukhi Municipality	34	2450	817	0	0	0	0	5	235	3502	62.51
Total		3916	322665	69397	65	3412	453	22585	22	1682	419741	6890.36

Source : Office of the District Panchayat & Rural Development Officer, Bankura

Fourthly, some complaints regarding the poor quality of rice supplied by the FCI was raised by some cooks and teachers. Though such complaints were not found to great expanse, there is a need for particular vigilance on this aspect. Also there have been some complaints regarding shortages in quantity and delay in supply, which need to be addressed.

Finally, the functioning of the Mid-day Meal programme in the district, as elsewhere, was found to have strong attachments with the overall functioning of the schools that depended on several factors including,

public participation, number of teacher, infrastructure and so on. There has been a strong correlation between larger public involvement in the programme and its level of success. This adds to the urgency of modifying the plan in order that enough room could be created for parents and other locales to take part in the delivery of the programme as well the governance of the schools. Also there is a great need for immediate intervention in streamlining the distribution of teachers in order to equip all the schools with more than one teacher. The shortages in terms of infrastructure cannot also be ignored.

Despite several constraints the cooked meal programme in the district has achieved several successes. It has, in particular, contributed to the aspiration of visualising the dream of the poor people of acquiring education by their children. The determination and activeness that the district administration has shown in realising the programme, one can hope, would continue and eradicate the problems. The programme is a lesson for itself and also for others.

Besides migration is one of major causes of drop-out in some area of this district. Families from Bankura-I, Chhatna, Indpur, Khatra, Ranibandh, Simlapal blocks migrate to the Eastern district as agriculture labour in Boro and Kharif season. Children also are compelled to go with their families. They remain detached from studies and schools. Table 3.18 depicts the block-wise number of migrating families for highly migrating-prone blocks.

Table 3.18 Gram-Panchayat wise number of migrant family of Bankura

Name of Block	Name of Circle	Name of Gram-Panchayat	Number of migrating families
Bankura-I	Sadar (W)	Kalpathar, Kenjakura	228
Chhatna	Chhatna & Chhatna (S)	Chhatna-II, Chinabari	191
Indpur	Indpur & Indpur (W)	Gourbazar, Brahmandiha, Raghunathpur	561
Khatra	Khatra (E) & Khatra (E)-II	Khatra-II, Supur, Baidyanathpur	316
Mejhia	Mejhia	Kushtore	73
Ranibandh	Ranibandh & Ranibandh (N)	Barikul, Ranibandh, Routora, Rudra	616
Simlapal	Simlapal & Simlapal (W)	Simlapal, Lakshmisagar	121

Source: Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

If the migrant children are admitted to a primary school through a system of migration card, the problem will reduce. But the real solution is completely stopping migration.

Community Participation:

It is widely recognized that basic education can be more effectively provided in schooling system where monitoring responsibility is devolved at the village level – where the community, the main stakeholder, plays an active role in local decision making. Most of the Village Education Committees do not take interest for overall development of education. To strengthen the pedagogical and technical support, to reduce teachers absence, improvement in the quality of teaching, and increase in students enrolment and attendance and improve communication between schools and VEC the monitoring unit has to be strengthened. There are S.I. of schools in every

Cluster Level Resource Centre but there is an administrative confusion due to ambiguity about the exact role of Sub Inspector of schools. Involvement of the Mothers' Group may be very effective since they are the biggest stakeholders.

3.6 Gender and social group disparities :

“If you educate a man, you educate a person; but if you educate a woman you educate a family”.

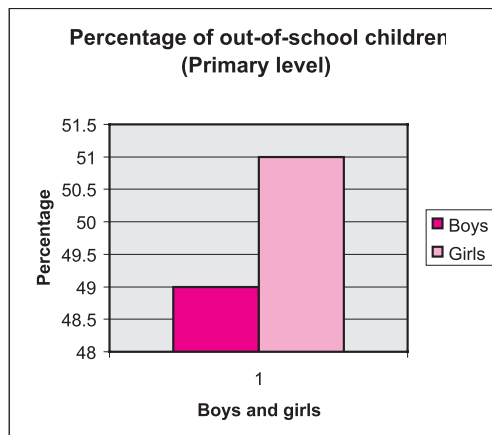
No society is even liberate itself, economically, politically or socially without a sound base of educated women.

The number of out-of-school boys and girls in primary and upper primary level, as is reflected by the DISE survey conducted under the Sarva Siksha Abhijan, Bankura is indicated in the Table 3.19.

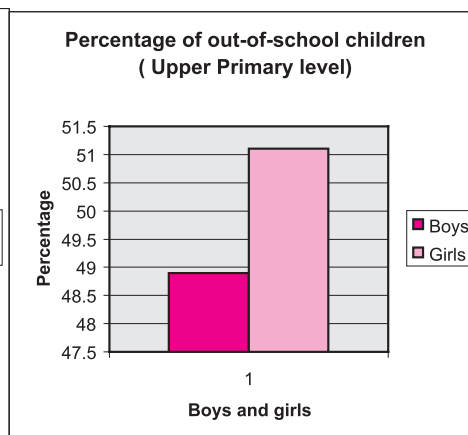
Table 3.19 Social group wise break-up of out-of-school children (As on 30.09.2005)

Section	Age	Sex	Social groups				
			SC	ST	Minorities	Others	Total
Primary	5+ to 8+	Boys	4596	596	1021	2298	8511
		Girls	4784	620	1063	2392	8859
Upper Primary	9+ to 13+	Total	9380	1216	2084	4690	17370
		Boys	8351	1083	1856	4176	15466
		Girls	8693	1127	1932	4346	16098
	Total	17044	2210	3788	8522	31564	
	Grand total	26424	3426	5872	13212	48934	

Source:- Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

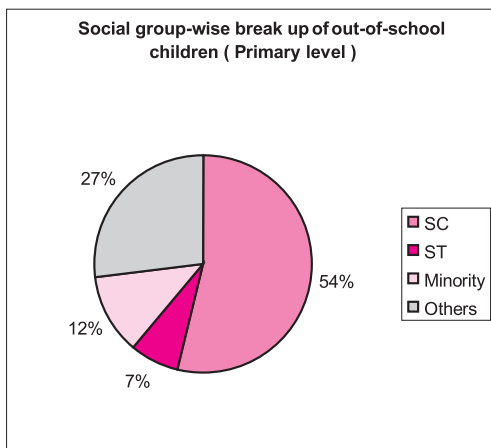


Bar diagram 3.4 Out-of-school children in Primary section

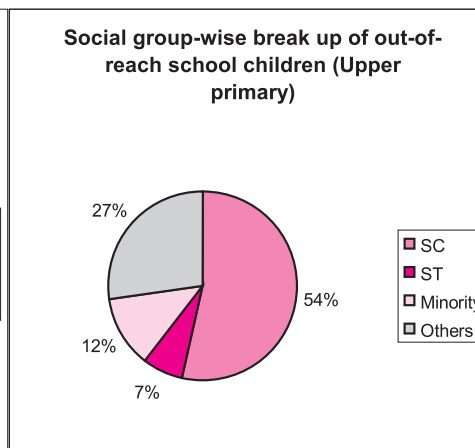


Bar diagram 3.5 Out-of-school children in Upper Primary section

Source : Office of the District Project Officer, Sarva Siksha Abhijan, Bankura



Pie chart 3.6 Social group-wise break-up of out-of school children (primary level)



Pie chart 3.7 Social group-wise break-up of out-of school children (upper primary level)

Source : Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

The reasons for gender gap in education are similar throughout the district. Poverty has an enormous bearing on girls' chances of schooling. When household income is limited boys generally tend to get preference over girls for schooling. The distance of schools is another factor. Schools located in distant places keeps them away from domestic work for longer period of time. This factor is prominent for girls students in Upper Primary system because the distance between two Upper Primary schools is more or less 7 to 10 km. in Bankura. In this regard, problem of communication is also a major reason for non-attendance of the girl students in Upper Primary schools.

Infrastructure related factors also play an important role in motivating girls to enrol and stay in schools. Other important factors are toilet facility, drinking water facility in schools and relevant gender sensitive curriculum.

Suggested strategy :

1. Advocacy for girls' education. This is the most

important step for raising awareness in society about the benefit of girls' education. Parents need to be convinced about benefits of educating their girl children. Vocational training has been conducted for 15 days at Hadal Narayanpur Gram Panchayet in Patrasayer block with 109 no. of girls of which 49 were out of school girls. The training has been based mainly on sewing and stitching. Vocational training coupled with awareness generation is also likely to enable them to postpone their early marriage.

- Promotion of vocational training courses. Community participation in planning development and management of education programme needs to be addressed. In this district Mother Teacher Association has been formed in all Primary schools.
- Promotion of adult literacy specially for women to be combined with skill training and income generating activities.

Table 3.20 Availability of drinking water and sanitation in Primary Schools

Name of the Block/Municipality	Primary Schools	Number of Primary Schools	
		Without drinking water facility	Without toilet facility
Bankura-I	104	14	19
Bankura-II	122	13	71
Barjora	190	43	102
Chhatna	239	45	160
Gangajalghati	162	32	101
Indas	141	14	1
Indpur	166	38	149
Joypur	157	10	34
Kotulpur	159	3	17
Khatra	116	14	43
Hirbandh	90	25	60
Mejhia	72	6	40
Onda	243	32	155
Patrasayer	140	8	63
Ranibandh	155	20	66
Raipur	193	44	158
Sarenga	114	7	61
Sonamukhi	153	11	61
Saltora	119	28	81
Simlapal	171	15	124
Taldangra	164	42	115
Bishnupur	147	14	22
Bankura Municipality	81	32	56
Bishnupur Municipality	33	22	27
Sonamukhi Municipality	29	12	18
Total	3460	* 544	** 1804

Source: DISE, 2005 conducted by the Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

[* Fund already allotted for 310 no. of tube wells.

** As on today no. of Primary Schools without toilet facilities : 826 (Fund already allotted for 725 no. of Primary schools)]

3.7 Education of disabled children

Education is a fundamental right of every child as it is mentioned in the Indian Constitution. Universalisation of elementary education of disabled children in the age group of 5+ to 18 years is equally important. It is found on screening and survey that at the end of June, 2006, total number of identified disabled children requiring special needs is 12073 in the district out of which 8779 number of children have been enrolled so far. Special integrated camps were held at Bankura-I, Hirbandh, Bishnupur and Bankura-II. Aids and appliances were distributed to 434 disabled children. It has been felt that the disability identification camp may be held for identification of all disabled people and then dovetailing of fund may be done to address the issue of the disabled children. Special Intervention on screening and

assessment of the disabled children has been continuing in this district for issuance of the Identity Card for the disabled from among the disabled persons with convergence of three government departments like Education, Health and Social Welfare. It is expected that the people with different types of disabilities of this district may be covered under this intervention.

As mentioned in the Disabled Act, 1995 the children with Mild and Moderate disabilities should be enrolled in the formal Primary and Upper Primary schools and it is being followed in this district for which Special Educators have been engaged through the District Level Resource Organisation (DLRO) for day to day checking up of physical and mental health of the disabled children. Ramp for disabled children has been constructed in almost all primary schools in this district.

Table 3.21 Category-wise disabled children (As on 01-07-2006)

Name of Block/ Municipality	Category-wise disabled children								Total
	OH	VI	MR	CP	HI	MD	AUT	LD	
Bankura-I	111	37	93	61	68	47	0	2	419
Bankura-II	195	59	67	21	76	26	1	6	451
Barjora	76	67	98	69	140	20	14	9	493
Chhatna	159	75	69	68	105	37	0	12	525
Gangajalghati	211	69	98	14	98	60	3	25	578
Hirbandh	122	69	56	19	85	40	0	20	411
Indpur	87	70	60	25	81	20	0	20	363
Indas	229	103	129	70	113	31	0	15	690
Mejhia	103	47	131	13	79	21	2	16	412
Joypur	211	148	143	69	143	74	03	22	813
Kotulpur	122	69	185	24	108	36	1	32	577
Khatra	97	41	51	4	80	21	00	13	307
Raipur	142	76	130	9	107	14	0	44	522
Ranibandh	89	23	51	16	67	17	0	27	290
Simlapal	123	70	91	8	117	39	3	20	471
Sarenga	79	39	73	67	68	40	0	59	425
Saltora	120	76	84	1	92	5	0	13	391
Sonamukhi	290	86	135	42	191	60	2	24	830
Taldangra	194	59	85	5	96	7	0	0	446
Bishnupur	123	28	75	27	71	18	0	58	400
Onda	204	45	71	8	126	33	0	17	504
Patrasayer	198	84	109	90	126	26	0	5	638
Bankura Municipality	108	28	36	69	64	19	0	3	327
Bishnupur Municipality	41	8	17	7	11	4	0	12	100
Sonamukhi Municipality	229	103	129	70	113	31	0	15	690
Total	3663	1579	2266	876	2425	746	29	489	12073

OH : Orthopedically handicapped
Locomotor disability

MR : Mentally retarded

CP: Cerebral Palsy

LD:

VI : Visually impaired

HI : Hearing impaired

MD: Multiple disabilities

AUT: Autism

Source :- Office of the District Project Officer, Sarva Siksha Abhijan, Bankura

The highest numbers of disabled children are in Sonamukhi municipality and Indus block.

It is mentioned here that Special Educators should similarly be engaged in the alternative schooling system (i.e. SSK/MSK/Rabindra Mukta Vidyalaya) etc.

It is suggested that community based Rehabilitation Centres may be opened at Village Education Committee/Ward Education Committee and Cluster Resource Centre level like where physical and mental care of the children with severe and profound disability may be taken regularly.

Further, it is found that the rate of drop out in this district is to some extent high from class-IV to V and

this high drop out rate is found among the disabled children because of the problem of distance between the residence and the school. Under Sarva Shiksha Abhiyan (SSA), Aids and Appliances have been distributed to the disabled children from time to time for attending the schools regularly.

It is needless to mention here that the problem of communication between the teachers and the students (mainly for the Hearing Impaired and Mentally Retarded children) is the major cause of drop out. Children can be first brought to school through vocational inputs and after an interest is developed and the rapport is established the normal learning process may be started.

4.1 Introduction

Bankura district has an area of 6,882 sq. kilometers and a population of 31,92,695 as per Census, 2001. The area of the district is large and it is thinly populated. This makes it quite difficult to make quality health services available to the community. Traditionally Bankura has been known for the problem of leprosy, malaria and filaria. On the other hand, the percentage of malnutrition and infant mortality rate have also been substantial. There are remote areas where accessibility is also a problem. Health is, therefore, a major concern in this district. It is also closely linked to the livelihood issue since the manday loss due to health problem has an impact in villages where majority of population falls under the category of daily wage earners. If the earning member of a family falls critically ill, the whole family becomes vulnerable and invariably falls into debt trap. Let us analyse the various aspects of health in Bankura one by one.

4.2 Reproductive and Child Health

“Of the 130 million babies born every year, about 4 million die in the first 4 weeks of life – the neonatal

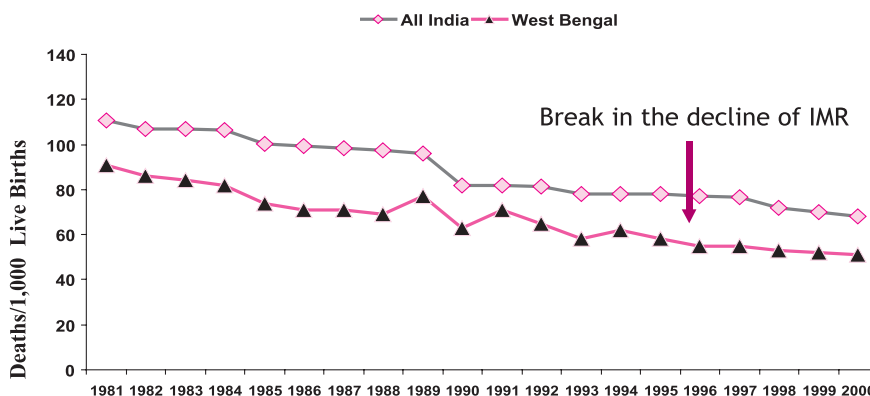
period. A similar number of babies are stillborn...”¹

The global scenario is very prominently reflected by the above statement. The level of infant and child mortality is a basic indicator of the quality of life in a society. The global community also declared a commitment to create an environment at national and also at the global levels alike. This declaration led to an agreement on the millennium development goals. Central among those goals are two that aim to reduce maternal and child mortality. Investment in maternal, newborn, and child health is not only a priority in saving lives, but also critical to advancing other goals related to human welfare, equity, and poverty reduction.

4.2.1 Infant mortality – an overview :

Although Health department and Integrated Child Development Service (ICDS) do capture data on a periodic basis, but getting an authentic and complete data remains a challenge. The reporting of death of children is often taxing for mothers and the family; some mothers may be reluctant to report childhood deaths at all, as not getting it documented provides some emotional comfort to the family.

How Many Die? ... IMR / India



Source: World Bank, 1999 & Health On The March

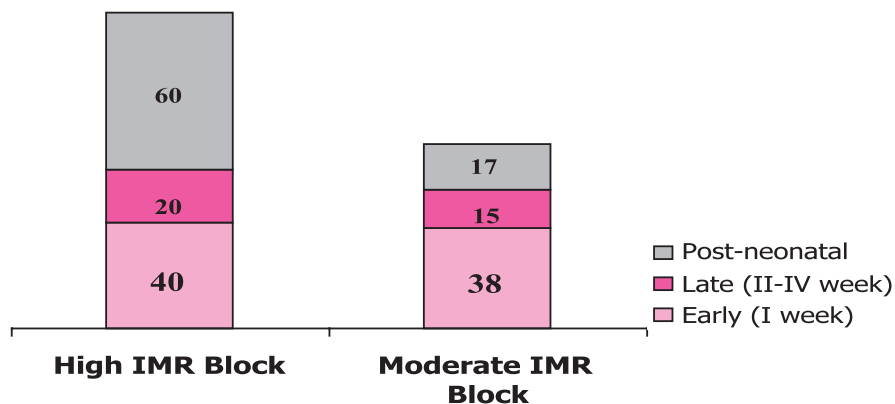
Graph 4.1 Improvement in the infant mortality rate in India from 1981 to 2000

1. source: www.thelancet.com, March, 2005

The socioeconomic consequences of maternal, newborn and child morbidity are also significant. Many conditions, such as obstructed labor or premature birth, can cause severe disabilities for survivors, adding stress to already fragile communities and health system. A mother's death or illness can jeopardize an entire family's well being; the care

required for disabled or sick children burdens families; and the loss of current or future earnings exacerbated the cycle of poverty and poor health for families and societies. All these become much more critical for this district which is among one of the lowest in terms of per capita income in West Bengal.

Neonatal Mortality does not come down with current interventions



Graph: 4.2 Current interventions & improvement in neonatal mortality in India

Source:- World Health Organization

The infant mortality rate for West Bengal for the five-year period immediately preceding the National Family Health Survey- 2 (NFHS-2) is estimated to have been forty nine per thousand live births. This means that five out of every hundred children born in West Bengal did not survive till their first birthday. There has been, however, a steady mortality decline over the three five-year periods in the infant and child mortality rates for all five-age intervals for the state as a whole.

Among all the challenges to bring down the IMR of the district the biggest of all would be to identify the different factors which contribute to infant mortality and its effective management. Let us look at the trend of the IMR of our country. The figure reflects that the main drop in IMR has been in the post-neonatal

phase, whereas the early neo-natal and late period remained almost unchanged. Within aggregate infant mortality, nearly 42 per cent of the deaths occur within the first week. Deaths in the next three weeks account for fifteen per cent, while deaths in the remaining 11 months amount to forty three per cent of the total infant mortality (West Bengal Human Development Report 2004). This clearly reflects that, for any further intervention to bring down the IMR, the focus area should be the early neonatal phase (from the day of birth to 28 days after delivery). The child survival programmes in the developing world have tended to focus on pneumonia, diarrhea, malaria and vaccine preventable diseases, which are important causes of death after the first month of life.

4.2.2. Infant mortality in Bankura :**Table 4.1 Block-wise infant mortality rate for male and female for the year 2005**

Name of Block	Male	Female	All
Bankura-I	47.87	46.04	46.99
Chhatna	32.29	24.22	28.40
Saltora	42.32	48.04	45.00
Gangajalghati	19.89	29.26	24.32
Khatra	21.22	17.74	19.65
Ranibandh	27.90	34.78	31.05
Raipur	12.54	11.08	11.88
Indpur	24.52	46.44	34.78
Sonamukhi	27.46	16.22	22.41
Indus	24.41	14.07	19.61
Patrasayer	9.61	12.22	10.89
Kotulpur	25.27	23.65	24.49
Hirbandh	21.16	3.11	12.56
Taldangra	2.86	3.55	3.17
Bankura - II	15.63	3.53	9.95
Sarenga	26.62	31.84	29.07
Simlapal	2.90	0.00	1.53
Mejhia	17.86	11.01	14.61
Onda	27.64	25.76	26.77
Borjora	12.70	17.06	14.63
Bishnupur	29.98	23.31	26.79
Joypur	23.50	29.27	26.26

Source:- District Programme Officer, ICDS, Bankura

Infant mortality in Bankura represents a significant block wise variation. Bankura-I, Saltora, Ranibandh, and Indpur are among the blocks representing higher infant mortality rate with respect to district IMR (source: ICDS MPR Jan.-Dec., 2005). Special strategies need to be evolved to address the disparities that exist among the blocks. Bankura I and Saltora are among the worst performing blocks with respect to IMR with IMR as high as 46.99 and 45 respectively. Taldangra and simlapal are among the better performing blocks of Bankura. Sex-wise variation among different blocks represents an interesting pattern. In most of the blocks the sex wise differentiation do not represent wide variation, but among few blocks the gap seems to be alarmingly high. Infant mortality of female child in Indpur is 46.44 where as their male siblings score 24.52 similarly in Gangajalghati, IMR (female) is 29.26 corresponding to 19.89 in case of IMR (male). Simlapal is also among these blocks where more female children are dying with respect to their male siblings. Though

male preference does exist in Bankura, which does reflect in some form or other, it becomes extremely important to know if the preference of male child is represented in these blocks in its most cruel form. It is also interesting to note that cases of selective abortions has also been reported from Saltora and Gangajalghati from some villages in these blocks. Though no correlation could be established but it becomes critical to note that in Indpur we have a large population of Utkal Bramhins community, among which dowry system is quite rigid.

4.2.3. Anaemia among women and children :

Anaemia is a condition that results when the level of hemoglobin in the blood is too low. Oxygen is transported by hemoglobin, in the red blood cells, from the lungs to other tissues and organs in the body, so that these tissues and organs can perform their functions. A deficiency of hemoglobin means a deficiency of the body's ability to deliver oxygen to

those tissues and organs. Anaemia usually results from a nutritional deficiency of iron, vitamin B12 and some other nutrients. This type of anaemia is commonly referred to as iron deficiency anaemia.

Anaemia has detrimental effects on the health of women and children and may become an underlying cause of maternal death, antenatal loss and prenatal loss. Anaemia among children can be associated with impaired cognitive performance, co-ordination, language development and scholastic achievement, as well as increased morbidity from infectious diseases. Early detection of anaemia can help prevent complications during pregnancy and delivery as well as the above-mentioned child development problems. Measurement of the prevalence of anaemia can provide important information for development of health intervention program, such as iron fortification, to prevent anaemia among women and children.

The proportion of children with anaemia in West Bengal (78 per cent) is higher compared to the Indian average of 74 per cent (West Bengal HDR 2004). However the proportion of children with severe anaemia is marginally lower, at 5.2 per cent compared to national average of 5.4 per cent. It would be interesting to see if anaemia does have a relationship with age, that it increases with number of living children (being highest for women with four or more children) and among adolescents. Unfortunately there is little data on anaemia which makes the analysis very difficult.

4.2.4 Adolescent health in Bankura :

Methodology :

The sample survey was done in two different schools of Kotulpur and Indpur of Bankura district. The purpose of the survey was to understand the status of adolescent health in the district. The sample study was felt important as no reliable study or data were available to substantiate the adolescent health in the district.

For these purpose 50 students from class VIII and class XI in both the schools were given a questionnaire and their responses were consolidated and analyzed. The analysis of the survey is mentioned below and the details are given in Annexure-I at the end of this report.

4.2.4.1. Personal hygiene:

Tap water has been identified as the chief source for drinking among both adolescent boys and girls in all age group. Toothpaste is commonly used for brushing teeth. In Indpur only 33 percent of the adolescent boys in standard VIII used neem for the purpose. Washing hand before food is a positive practice being followed by them. With respect to use of sanitary latrine at home in Indpur, only 21 percent of girls and 27 percent of boys follow the practice in standard VIII while 63 percent of girls follow the practice 87 percent of boys follow the practice in standard XI. In Kotulpur Block, 64 percent of the adolescent girls and 29 percent of the adolescent boys follow the practice respectively. It is to be noted here that in Indpur, nearly 73 percent of girls and 66 percent of boys in standard VIII and 27 percent of the adolescent girls and 18 percent of the adolescent boys in standard XI do not have access to sanitary latrine at home. However in Kotulpur, 33 percent of the adolescent girls and 70 percent of the adolescent boys do not have access to sanitary latrine at home respectively. Taking school sanitation into consideration, we find that the rate of school based sanitary latrine facility is very poor in Indpur, nearly 68 percent of the schools accommodating girls and 55 percent of the schools accommodating boys do not provide the infrastructure in standard VIII. In spite of 45 percent of the schools provide the facility, significantly 63 percent remain unused. While in standard XI nearly 63 percent of the schools accommodating girls do not provide the infrastructure, significantly 27 percent of the schools provide the facility, 27 percent remain unused. 95 percent of the schools accommodating boys provides the infrastructure, only 5 percent remain unused. In the schools accommodating girls at Kotulpur, the rate of school based sanitary latrine facility and its use rate is very high nearly 92 percent while 58 percent of the schools accommodating boys do not provide the infrastructure only 35 percent provide but remain unused. In Indpur, 78 percent of girls and 61 percent of the boys in standard VIII and 54 percent of girls and 45 percent of the boys in standard XI accessed pond for the purpose of bathing while in Kotulpur, 59 percent of girls and 20 percent of the boys accessed pond for the same purpose, however only 20 percent of the boys had in-house facility.

4.2.4.2. Physiological status :

In Indpur, about 89 percent of the adolescent girls in standard VIII undergo regular menstruation cycle and about 72 percent of the adolescent girls in standard XI undergo regular menstruation cycle. In Kotulpur, about 58 percent of the adolescent girls undergo regular menstruation cycle and nearly 36 percent suffered from irregular cycle. High percentage of the adolescent girls as traditional method use cloth for the purpose.

4.2.4.3. Consumption pattern :

In Indpur, 52 percent of the adolescent girls received one square meal a day and 61 percent of the adolescent boys received square meal a day at standard VIII. In the context of consumption pattern, there is an existing gap (9 percent) in terms of frequency of food intake between adolescent boys and girls, however there is no deviance in relation to the quality of food consumed on a regular basis. And 90 percent of the adolescent girls and 77 percent of the adolescent boys received square meal a day at standard XI respectively. In Kotulpur, 76 percent of the adolescent girls and 90 percent of the adolescent boys received square meal a day. Carbohydrate is the chief dietary source identified in their basic food group, which comprise of cereals, pulses and vegetables. Milk and milk products and animal protein are seldom consumed.

4.2.4.4. Level of awareness:

In Indpur and Kotulpur, on the issue related to age of marriage, high percentage of adolescents considered 18 years for female as the approved age for marriage, both socially and legally but possessed difference of opinion in respect to age of marriage for male. Only 41 percent of girls and 66 percent of the boys at standard VIII in Indpur possessed knowledge on the contraceptive measures for birth planning while in standard XI, 72 percent of girls and marginal percentage of adolescent boys possessed knowledge on the contraceptive measures for birth planning. In Kotulpur, 82 percent of adolescent boys and marginal percentage of adolescent girls possessed knowledge on the contraceptive measures for birth planning. In Indpur, 35 percent and 44 percent of the girls and boys respectively in standard VIII and in standard XI 90 percent of the girls and 45 percent of boys knew HIV/AIDS and its mode of transfer. In Kotulpur, 28 percent girls and 47 percent boys knew HIV/AIDS and its mode of transfer respectively.

4.2.4.5. Behavioral constraints:

In Indpur, rate of substance abuse is 10 percent in the form of chewing tobacco among girls and among the boys, 22 percent in the form of chewing tobacco and smoking in standard VIII. One incident of molestation has been identified from among the respondent group. With respect to adolescent boys and girls in standard XI, substance abuse is totally absent among the girls. Seven incidents of molestation have been identified from among the respondent group. Rate of substance abuse among the boys is 38 percent in the form of chewing tobacco, smoking and betel leaf consumption. Ten incidents of molestation have been identified from among the respondent group. In Kotulpur, rate of substance abuse is 17 percent in the form of chewing tobacco among the girls and rate of substance abuse is 11 percent in the form of chewing tobacco among the boys. No incident of molestation has been identified from among the respondent groups.

4.2.5. Maternal mortality :

In spite of the growing concern about reproductive health, information on levels, trends and differentials in maternal mortality remains in most developing countries. For India, the National Family Health Survey of 1992-93 was the first to provide a national-level estimate of 437 maternal deaths per 100,000 births for the two-year period preceding the survey (International Institute for Population Sciences, 1995). But in spite of surveying nearly 90,000 households, it could not provide estimates at regional or state-levels owing to the smallness of the sample. Even at the national level, the sample inadequacies of the NFHS came into sharp focus when the second round of the survey in 1998-99 produced a maternal mortality estimate of 520, but failed to confirm statistically the possible rise in the level of maternal mortality (International Institute for Population Sciences and ORC-Macro, 2000).

The application of sisterhood method to the data from the Human Development Profile Survey of 1994 yields an estimate of maternal mortality of 544 deaths per 100,000 births in rural India for a period roughly 12 years before the survey. It also shows that maternal mortality ratio was more than 600 in east and north-central India, while it was between 300 to 400 in north-western and southern India.

4.2.6. Indirect indicators :

4.2.6.1. Institutional delivery :

Maternal mortality is strongly related to institutional

delivery. Table 4.2 shows the status of institutional delivery for different blocks.

Table 4.2 Institutional delivery status during the year 2005-2006

Sl. No.	Block/Unit	Number of delivery			Percentage of institutional deliveries
		Home	Institutional	Total	
1	Bankura Sammilani Medical College & Hospital		15432	15432	100.00
2	Bishnupur Subdivisional Hospital		4382	4382	100.00
3	Anchuri BPHC (Bankura-I)	405	106	511	20.74
4	Kanchanpur BPHC (Bankura-II)	423	139	562	24.73
5	Amarkanani BPHC (Gangajalghati)	706	1130	1836	61.55
6	Barjora BPHC	702	1080	1782	60.61
7	Mejhia BPHC	348	691	1039	66.51
8	Saltora BPHC	926	529	1455	36.36
9	Chhatna BPHC	1212	405	1617	25.05
10	Onda BPHC	1325	604	1929	31.31
11	Indpur BPHC	935	590	1525	38.69
12	Khatra BPHC	662	1009	1671	60.38
13	Hirbandh BPHC	668	305	973	31.35
14	Ranibandh BPHC	868	805	1673	48.12
15	Raipur BPHC	1213	888	2101	42.27
16	Sarenga BPHC	779	191	970	19.69
17	Simlapal BPHC	918	597	1515	39.41
18	Taldangra BPHC	709	1206	1915	62.98
19	Kotulpur BPHC	938	1315	2253	58.37
20	Joypur BPHC	1099	558	1657	33.68
21	Radhanagar BPHC	1225	427	1652	25.85
22	Sonamukhi BPHC	956	1233	2189	56.33
23	Patrasayer BPHC	1501	554	2055	26.96
24	Indus BPHC	1342	945	2287	41.32
25	Sarenga BPHC		1299	1299	100.00
26	Nursing homes in the district		2702	2702	100.00
	Total	19860	39122	58982	66.33

Source: Office of the Chief Medical Officer of Health, Bankura

The age-old practice of trained Dai has also been much emphasized in reducing the maternal mortality rate. So far, in this district 1627 numbers of Dai have been trained. However, most of the Dai do not participate in the process of delivery of children. They are generally providing post-delivery help. In fact, they

are not chosen by community through a participatory process and are looked upon as paid Government Employees (Specially after they are provided the training). This lack of community support has made the whole lot of these Dai rather ineffective.

Training for the Dai at Sarenga BPHC

Indian Institute of Bio-social Research & Development (IBRAD) organised training for the Dai at Sarenga Block from 24th July-29th July, 2006. Twenty-one participants attended the training. The main objective of this training was to make untrained Dai more aware about the scientific methods of home delivery and its implementation. They have inherited this knowledge from their parents and in-laws, but they are not habituated with the different scientific methods and the use of those methods. They were also taught about the do's and don'ts during delivery. So this training would help them to carry out proper and safe delivery in a scientific manner.



4.1 Training of Dai going on

Feedback from after training:

Kapura Kadma has attended and sent two women with their babies to the local sub-centre for birth registration, weight measurement and immunisation.

(Source:- IBRAD)

What has appeared to be more effective is to provide transport services to pregnant mothers and provide them at subsidized rates to the most vulnerable and underprivileged. In fact, ICDS workers may be trained to keep track of the pregnant mothers and they may

facilitate the access to the transport service around the expected date of delivery. Ambulance services have been started at the primary health centres, but a study shows that the most deprived sections have not been able to make use of the same.

Micro-planning for Chhatna

An attempt has been made to understand the institutional delivery, infant mortality rate and other related indicators for Chhatna Block. Data on child death and other such indicators were collected both from the Anganwadi workers and the ANMs for validation. The IMR was then calculated and was shared with them.

The ANMs were then asked to provide data on the number of institutional delivery, immunisation coverage etc. and basic indicators in percentage terms were derived and handed over to them. They were then asked to do the micro-planning for each sub-centre citing reasons for shortfall and suggest remedial measures.

It has been one year since the plan was formulated and it has served as a very effective tool for the management of the health services. Firstly, the ANMs and the ICDS workers have started reporting correct figures of child-deaths. Also, the remote and uncovered areas have gained more focus and the immunization coverage and institutional delivery has improved.

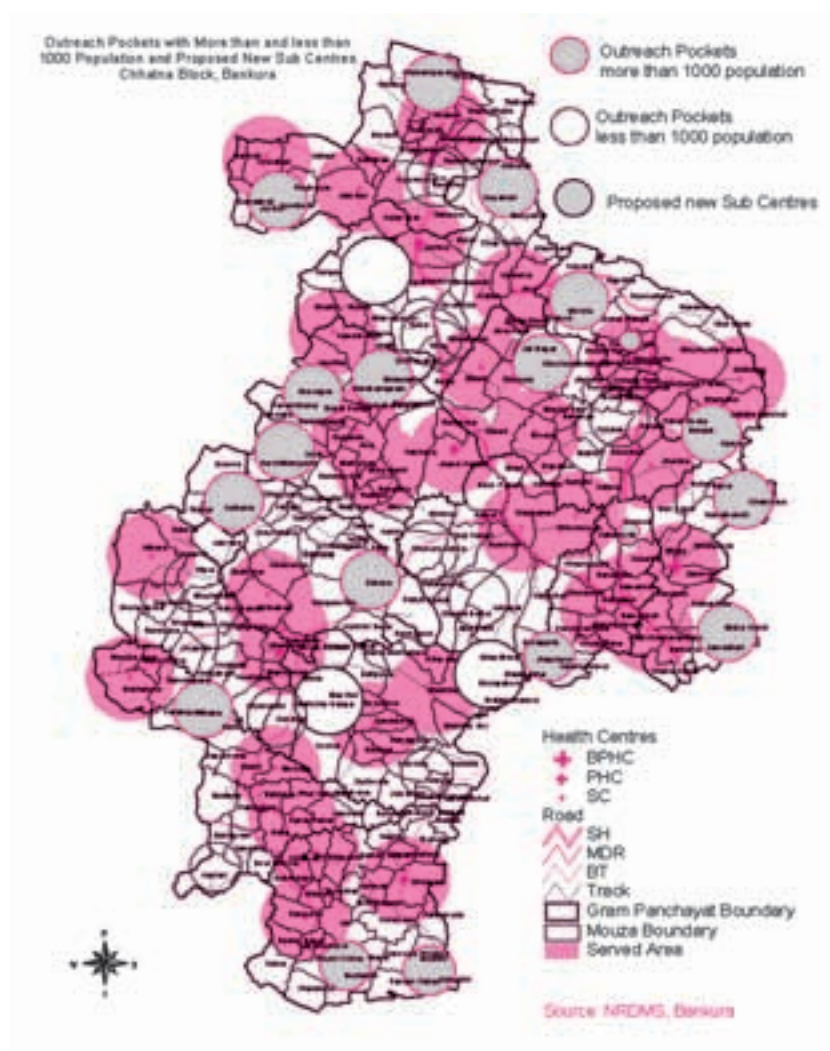
The outreach section has been designed by plotting the sub-centres on a GIS platform and identifying the uncovered habitation.

4.2.6.2. Sex ratio :

Although the recent Indian census has brought favorable figures for the better half of the society, a rise of 6 more females per 1000 males than the 927 of previous census. However, the fall in sex ratio of 0-6 population is continuing as well as intensifying. The census of India has revealed the stunning fact that the sex ratio in the age-group 0-6 years in India has further gone down sharply from 945 females per 1000 males in 1991 to 927 in 2001. Sex ratio at birth declines with maternal age, paternal age and parity; it has been associated with decline in coital frequency (William James, 1983). At the national level, for women giving birth at younger ages, sex ratio at birth is high and it subsequently goes down for older age group.

Analysis of health perspectives related with this ratio

in two surveys, namely National Family Health Survey-I (1993) and National Family Health Survey-II (2000) shows that, those who have never experienced stillbirths or spontaneous abortions contribute more masculinity to the population. As for the mothers having the experience of either stillbirths or spontaneous abortion or both of them the, ratio of male to female births is less than the average 104, while it is more in case of those who have never experienced any of them. This finding is consistent with the assumption that the sex ratio of the new born became more masculine as the conditions of childbearing become ameliorate, health care improves and proportion of stillbirth comes down (William James, 1983; Griffiths et. al., 2000). The sex ratio gradually stabilizes at the age of five (chances of having 1:1 sex ratio).



Map 4.3 Outreach pockets of health service in Chhatna Block

(Source:- NRDMS, Bankura)

4.2.6.3. Age of marriage :

Marriage is the predominant context for childbearing in all developing countries. Customs do vary governing whether men and women live together — and have children — outside of marriage or in consensual unions rather than in legal marriages. The initial timing of entry into unions and the prevalence and continuity of marriage also vary from country to country. But in spite of these variations, most births still occur to women in

union, and this is also true for women ages 15 to 19. Age at marriage is of particular interest because teenage marriage and early pregnancy tend to be associated with low birth-weight and higher infant mortality and also higher maternal mortality.

The average age of marriage still remains low in West Bengal, although it appears to have increased in recent years.. Where as the average age of marriage in Bankura, still remains low.

4.2.6.4. Fertility rate :

Table 4.3 Block-wise number of eligible couples, live births and gross fertility rate during the year 2005

Name of Block	Number of eligible couples	Number of live birth		Total live birth	Gross fertility rate
		Male	Female		
Bankura-I	15182	789	696	1485	97.81
Bankura-II	22267	1169	1100	2269	101.90
Gangajalghati	27672	1571	1425	2996	108.27
Barjora	29192	1671	1470	3141	107.60
Mejhia	12737	715	689	1404	110.23
Saltora	18993	909	848	1757	92.51
Chhatna	29895	1664	1606	3270	109.38
Onda	36388	2086	1948	4034	110.86
Indpur	24166	1353	1290	2643	109.37
Khatra	17506	960	868	1828	104.42
Hirbandh	12119	459	454	913	75.34
Ranibandh	18187	978	891	1869	102.77
Raipur	25981	1139	1017	2156	82.98
Sarenga	14741	957	930	1887	128.01
Simlapal	22179	1226	1170	2396	108.03
Taldangra	22074	1339	1202	2541	115.11
Kotulpur	29135	1587	1506	3093	106.16
Joypur	26963	1357	1251	2608	96.73
Bishnupur	24293	1404	1214	2618	107.77
Sonamukhi	21005	1182	1099	2281	108.59
Patrasayer	29840	1552	1504	3056	102.41
Indas	24700	1433	1338	2771	112.19

Source:- Office of the Chief Medical Officer of Health, Bankura

It is interesting to note that the gross fertility rate is highest in Sarenga, followed by Taldangra.

4.2.7. Malnutrition in Bankura :

District ICDS cell is the nodal agency at the district level which is entrusted with the responsibility of management of interventions related to malnutrition in children. Each child is supposed to be weighed by an

Anganwadi worker (AWW). At the district level the malnutrition data comes in two broad categories, viz. 0-1 year, 1-3 years and 3-6 years. Considering the secondary data that comes to the district periodically, it's difficult to understand the pattern of malnutrition. However, the data obtained on malnourishment for the blocks of this district following standard growth chart of World Health Organization is given in table 4.4.

Table 4.4 Malnutrition status of 0-6 year children in Bankura as on May, 2006

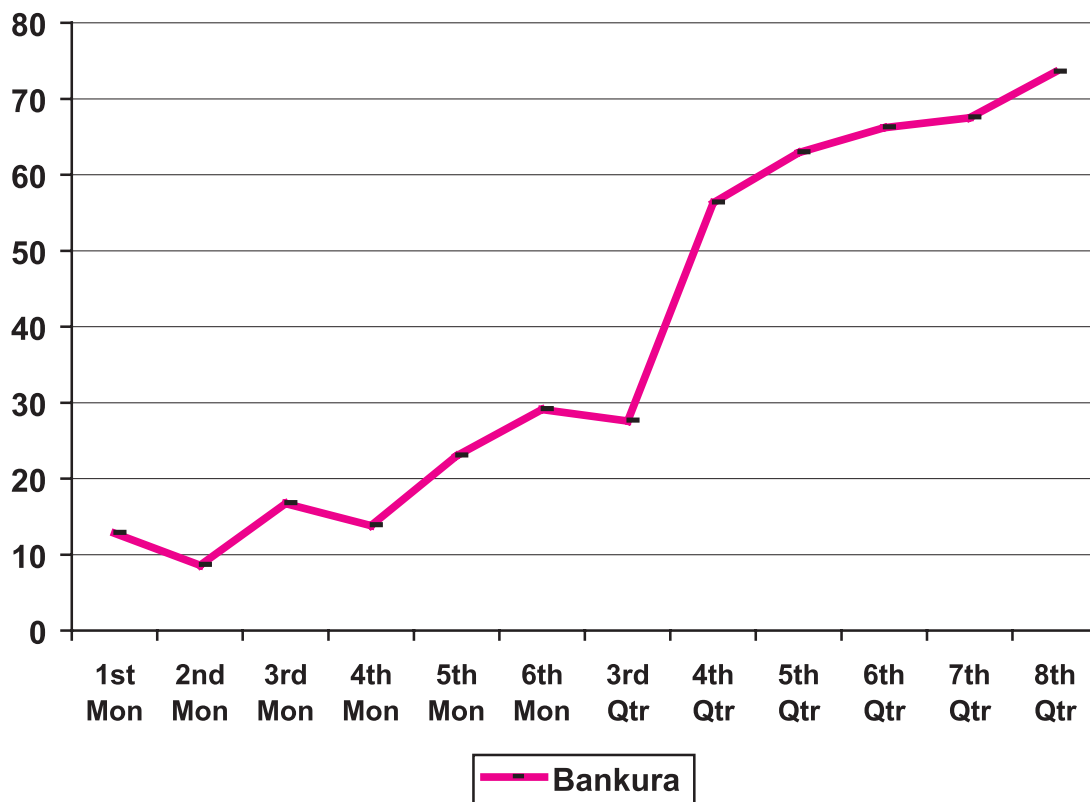
Sl. No.	Name of Block	Total children (0-6 years) weighted	Total children (0-6 years) malnourished	Malnourish children (0-6 years) per 1000 children weighted
1	Bankura-I	7792	4912	630
2	Chhatna	12521	7296	583
3	Saltora	8252	5296	642
4	Gangajalghati	10555	6210	588
5	Khatra	7757	4623	596
6	Ranibandh	9268	5138	554
7	Raipur	8133	4933	607
8	Indpur	9470	5786	611
9	Sonamukhi	9828	6138	625
10	Indus	9724	5681	584
11	Patrasayer	8126	5218	642
12	Kotulpur	10328	5895	571
13	Hirbandh	4608	287	62
14	Taldangra	7448	3123	419
15	Bankura-II	11235	7102	632
16	Sarenga	4336	2255	520
17	Simlapal	6012	2972	494
18	Mejhia	3501	1217	348
19	Onda	14792	9344	632
20	Barjora	9430	5619	596
21	Bishnupur	10710	6698	625
22	Joypur	8817	4948	561
	Total	192643	110691	575

(Part of the Hirbandh data is included in that of Khatra)

Source: Office of the District Programme Officer, Bankura (ICDS), Bankura

Also the Rapid Assessment Programme (RAP) study conducted by CARE (September, 2005) has been taken into consideration to capture the trend of proportion of malnourishment across Bankura over the first two

years of birth. The methodology of RAP study conducted by CARE is given in Annexure-II at the end of this book.



Graph 4.4 Trends of proportion of malnourishment across Bankura over the first two years (based on RAP data)

Source : CARE Survey (September, 2005)

Malnutrition as in other parts of the country is also a chronic problem in Bankura. In Bankura more than 90 percent of the children born (both institutional and home delivery) are normal (birth weight more than 2.5kg). It is important to note that malnutrition curve remain constant till the age of 6-7 months. Thereafter the curve represents a sudden decrease of normal children from 90 percent to 30 percent. That means within a period of 11-12 months the percentage of normal children comes down by 60 percent. Once the children reached 17 months of age, the curve stabilises further and don't represent further rise. But the fact remains that even if one feeds the child adequately after 17 months, the condition doesn't improve. Thus the window of opportunity is between 6 months to 17 months. This is the period where the children need to

be appropriately fed and taken care of. Experience says that once the children are severely malnourished it becomes very difficult to bring them back to normalcy unless they get clinical assistance. So the challenge is to hold those children who were born as normal beyond 6 months of age.

The time the children reach the anganwadi centres (AWCs) more than half the children are malnourished. In order to make a sustainable dent in improving the nutritional status of children, the major focus should be towards those children who are below 17-18 months old. All nutrition related intervention (below 17 months) needs sharpening. This suggests a radical change from pre-schooling to more and meaningful home contacts by service provider to take care of above age group.

Table 4.5 Block-wise report on malnutrition of children

Sl No.	Name of Block	Percentage of malnourished child below 1 year			Percentage of malnourished child in the age-group of (1-3) years		
		Male	Female	Total	Male	Female	Total
1	Bankura-I	44.30	62.87	53.16	60.44	75.10	67.35
2	Chhatna	49.90	57.73	53.88	61.32	67.83	64.53
3	Saltora	50.20	62.63	56.41	65.09	78.77	71.64
4	Gangajalghati	42.12	54.94	48.16	57.20	70.59	63.52
5	Khatra	49.27	57.33	53.03	62.46	68.89	65.49
6	Ranibandh	49.69	62.64	55.81	62.72	70.60	66.58
7	Raipur	49.77	51.11	50.46	60.44	64.52	62.47
8	Indpur	50.53	58.04	54.11	62.14	69.57	65.77
9	Sonamukhi	55.70	62.76	59.15	64.25	70.10	67.17
10	Indus	43.80	50.84	47.50	53.82	65.00	59.44
11	Patrasayer	53.93	58.15	56.06	64.03	68.11	66.08
12	Kotulpur	45.07	49.21	47.13	52.89	63.52	58.04
13	Hirbandh *	12.81	7.51	10.49	14.53	7.57	11.42
14	Taldangra	35.39	41.77	38.58	46.98	53.90	50.38
15	Bankura-II	55.34	56.67	55.99	58.34	65.74	61.89
16	Sarenga	42.37	50.00	45.99	54.61	60.19	57.30
17	Simlapal	51.17	52.88	51.99	38.35	41.08	39.64
18	Mejhia	38.92	43.87	41.43	43.12	50.83	46.79
19	Onda	40.12	51.63	45.72	57.41	70.49	63.85
20	Barjora	42.53	60.24	51.50	58.22	68.23	63.06
21	Bishnupur	53.37	62.51	57.82	63.17	70.43	66.71
22	Joypur	47.07	49.49	48.24	51.19	62.05	56.53

Source: DPO, ICDS (*Part of the Hirbandh data is included in that of Khatra)

Malnutrition problem in Bankura is multi-dimensional and hence demands a similar approach to address the complexities of the problem. The co-ordination between ICDS, Panchayat-raj Institutions and Health & Family Welfare needs to be further strengthened at every level.

Weighing efficiency was a big concern area in the district a couple of years ago but the district has significantly progressed in this respect. The weighing efficiency being defined as (total number of children of a particular age-group weighed / total number of children of that age-group) x 100, at present the weighing efficiency on an average has reached over 70 percent. On an average in Bankura every second child is moderately or severely malnourished. The majority of the malnourished children belong to moderate group (more than 90 percent). It is important to note that as the severely malnourished children needs clinical support and is difficult to be managed at the community level, the AWW has a very little role to play. She, of course, plays a vital role of referring the child at the appropriate level

and time. Hence there needs to be a radical change in the way the AWW and ICDS supervisors are managing malnutrition. The major focus and resources needs to be towards those children who have taken birth as normal children and the children belonging to Grade-I and Grade-II as per norms prescribed by the World Health Organization. Holding the normal children as normal beyond 6 months holds the key as has been discussed earlier and that the window of opportunity is during the period between birth and 17 months of age of the children. Children belonging to Grade-I and Grade-II can be managed at the community level. Hence, the majority of the resources and focus of ICDS could be channelised towards them and not on Grade-III and Grade-IV children.

4.2.8. Behaviour-related status :

Presently the monthly reports submitted by the Angan Wadi Workers does not capture the behaviour related aspects. An integrated format has been developed in the district for them. This is yet to be implemented.

The behaviour-related data were primarily captured from RAP (Rapid Assessment Programme) data. In Bankura 3 rounds of RAP data are available at the district. To capture the data 3 different and independent agencies were identified and the survey was done with the support from CARE-India.]

ROUND AGENCY

R I- TNS MODE (Sept 2003)

R II- AC Nielsen ORG MARG (September, 2004)

R III- EPOS Health Consultant (September, 2005)

(The methodology of these surveys is given in Annexure-II at the end of this book)

4.2.8.1. Behaviour-related status with respect to new-born care:-

Some results :

Newborn care at the community level still remains a critical area in Bankura. Though the institutional delivery has gone up from 45.7 percent (Sept 03 RAP I, TNS Mode) to 59.1 percent (Sept 05 RAP III, EPOS), but still new born care at the community level remains a critical area as 39.9 percent of the deliveries are still at the community level. More over it becomes much more critical when home delivery by untrained personnel is as high as 53 percent (Sept 05 RAP III, EPOS).

Initiation of breast-feeding within 1 hour of birth has shown a significant improvement from 84.7 percent to 91.5 percent (low socio-economic status 83.3 percent to 92.2 percent) RII-RIII. Early and Exclusive breast-feeding has increased from 52.5 percent to 62 percent (Low socio-economic status 53.3 percent to 69.9 percent) RII-RIII. Exclusive breast-feeding dropped by more than 30 percent by 4 - 5 months though early breast-feeding within one hour remains as high as 91.5 percent. But the issue remains that in case of more than 68 percent of the total deliveries, the baby is not wiped and dried immediately after the birth.

With respect to five cleans, desired level of change and level of understanding is shown (clean thread and new blade was reported to be as high as 90 percent, Sept 05 RAP III, EPOS). Worst among all the five cleans remains the clean hands. All five cleans not practiced in case of home deliveries is as high as 49 percent. Another significant area is the extent the mothers are aware of the danger signs of the newborn. Mothers not aware about even one-danger sign of newborn remains as high as 33 percent.

Every weighed (3-5 months) has increased from 47.1percent to 83.5 percent (low socio-economic status from 44.6 percent to 87 percent (Sept 04 RAP II, AC Nelson ORG MARG –Sept 05 RIII, EPOS). Babies weighed within 3 days of birth have also increased from 19.6 percent to 46.8 percent (Low socio-economic status 16.2 percent to 48.1percent) RII-RIII. But the issue remains that, more than 50 percent of the babies taking their birth at the community level do not have their birth weight recorded till the third day of delivery.

Factors which have contributed towards the improvement :

Increased contact :

AWW ever visited during the first week of delivery has increased from 17.2 percent to 24.6 percent (low socio-economic status from 11.7 percent to 24 percent) RII-RIII. AWW/ ANM visited anytime during 2-7 days after delivery increased from 17.9 percent to 25.4 percent (Low socio-economic status from 10 percent to 27.1 percent) RII-RIII. Any service provider or local person ever visited during the first week of delivery has increased from 21.2 percent to 29.9 percent (Low socio-economic status from 14.6 percent to 13.2 percent) RII-RIII.

Content of the contact :

Any advice related to breastfeeding has increased from 39.4 percent to 78.6percent (Low socio-economic status from 33.3 percent to 76.7 percent) RII-RIII. Advice regarding colostrum / first milk has increased from 24.4 percent to 47.6 percent (Low socio-economic status from 26.7 percent to 40 percent) RII-RIII. Advice regarding giving only breast milk until 6 months has increased from 24.2percent to 47.6 percent

(Low socio-economic status from 26.7 percent to 40 percent) RII-RIII. Told that the baby is weak has increased from 9.1 percent to 21.4 percent (Low socio-economic status from 6.75 to 16.7 percent) RII-RIII.

Challenges :

One of the major challenges that remain to be addressed is planning the critical contact period. Contact of AWW of the ANM on the day of delivery as low as 1.5 percent and in case of AWW 9 percent. Contact within 1st week of delivery in case of ANM 7 percent and AWW 24 percent (Survey done during Sept 05 RAP III, EPOS).

4.2.8.2. Behaviour-related status with respect to pregnancy and ante-natal care:

Women check at least once by ANM has gone up from 29.3 percent to 45.7 percent (low socio-economic status 34 percent to 51 percent) RI-RII. Received 3+ checkups during pregnancy from 34.1 percent to 40.7 percent to further to 54 percent in case of RI-RIII (low socio-economic status 31.8 percent to 40.9 percent). Women checked at least once by ANM in the last trimester have also increased from 22.6 percent to 39.3 percent (Low socio-economic status 25.8 percent to 43.8 percent) RI-RII.

Challenges:

But the major issue remains that more than 46 percent of the women are not receiving 3+ ANC. ANM contacts during the 3rd. trimester also remains low. Of the total pregnant women, only 59 percent have been reported to have been contacted by any service provider during the last trimester of her pregnancy. AWW ever contacted during pregnancy numbers 50 percent and those cases that have received at least 90 IFA numbers 54 percent.

IFA:

Mean number of tablets received by those who received any IFA increased from 72.21 to 83.06 (Low socio-economic status from 75.44 to 85.47) RI-RII (Denominator: Mothers of children 0-5 months who received 90+IFA). Consumed 90+ tablets (or equivalent), among those who received 90 tablets increased from 49.4 percent to 63.5 percent (Low socio-economic status 42.9 percent to 63.8 percent) RI-RII. Mean number of tablets consumed by those who

receipt 90+ IFA increased from 53.91 to 69.41 (Low socio-economic status 53.74 to 71.23) RI-RII.

Challenges:

Almost half the pregnant women's are not receiving 90 percent IFA. Received at least 90+ IFA remains as low as 54 percent (Sept., '05 RAP III, EPOS). More than 10 percent of the pregnant population has not consumed even a single tablet of IFA (Consumed any amount - 89 percent, Sept., '05 RAP III, EPOS). Consumed at least 90 among those received 90-57 percent.

Factors which have contributed towards the improvement:

Contacts during pregnancy:

AWW ever met during pregnancy, for any purpose from has increased from 40.4 percent to 50 percent RII-RIII and any contact in the last trimester in which health was discussed has also increased from 40.4 percent to 46.3 percent RII-RIII.

Home visit of ANM during the last trimester has increased from 12.4 percent to 20 percent RII-RIII.

Home visit in last trimester by any Service Provider has increased from 35.7 percent to 39.1 percent RII-RIII.

Advice / content of the contact:

Advice provided by anyone who has received any check ups has increased 39.8 percent to 63.8 percent (Low socio-economic status from 28.8 percent to 39.7 percent) RII-RIII. Advice provided by ANM has also increased from 39.9 percent to 53.5 percent (Low socio-economic status from 28.8 percent to 39.7 percent). Advice received about breastfeeding during pregnancy (women who delivered at home and contacted in last trimester) from 8.5 percent to 51.1 percent (Low socio-economic status 2.8 percent to 44.8 percent) RI-RII and from 51.1 percent to 70.4 percent (Low socio-economic status from 49.3 percent to 67.7 percent) RII-RIII. Among 0-5 months old who were ever visited at home in last trimester and advised about breast feedings has increased from 60.2 percent to 79.9 percent (Low socio-economic status 52.3 percent to 80 percent) RII-RIII.

4.2.8.3. Behaviour-related status with respect to complementary feeding:

This is an area, which requires immediate attention. Children of 6 - 8 months age not having half the

recommended quantity of food is as high as 77percent (Sept 05 RAP III, EPOS) and children of 9-11 months not having half the recommended quantity of food is 53 percent. This is an area, which demands serious attention in Bankura.

Typical malnutrition curve of Bankura shows that during the time of birth most of the children are born normal but by the time they reach 6-7 months there is a sharp fall and the fall continues till they are 17 months old. This means that, by the time the children reaches AWCs, the majority of them are already malnourished. Different studies substantiate that no matter how actively one feeds the malnourished children once they are 2 years old they never improve in terms of their nutritional status. So a point of realization is that the children, those who are coming to the AWCs for pre schooling, comprises just the tip of the iceberg.

4.2.8.4. Behaviour-related status with respect to supplementary nutrition :

Take Home Ration (Ever received Take Home Ration (THR) on the day of Nutrition and Health Day (NHD)-there has been increase in women ever receiving THR, having children 0-5 months old from 33.4 percent to 45.5 percent (RI-RII) (Increase in Low socio-economic status from 42.5 percent to 62.8 percent) and further from 45.5 percent to 73.8 percent (RII-RIII). (More than 40 percent increase)

Ever received supplementary nutrition (during 0-5 months of child's age) increased from 59 percent to 70.1 percent (Low socio-economic status from 62.9 percent to 70.6 percent) RII-RIII. (More than 10 percent increase).

4.2.8.5 Nutrition and Health Day:

Any set day, which occurs at least once in a month, when Take Home Rations are distributed in the AWC and an ANM visits the AWC and offers immunization and / or ANC services.

The supplementary nutrition programme run by the ICDS prior to the initiation of NH Day required the beneficiary to come to the centre on a daily basis to get their ration. Studies as well as field observations revealed that the coverage rate of intended beneficiaries was low

especially in the Rural and Tribal pockets. Reasons were obvious -

- ❑ Scattered housing patterns that explained large distances covered to reach the AWC.
- ❑ Nature of occupation in rural/tribal areas & other household priorities.

The concept of THR was promising and had distinct advantages that were subsequently experienced. Accordingly, State Government agreed in principle to provide supplementary food as THR especially to under 3 children, Pregnant and Lactating women (non BPL) during each monthly / fortnight NHD at all AWCs along with other health services provided by ANM / AWW.

On the other hand, the grass-root workers of the Health Department were having a tough time pursuing the eligible beneficiaries for delivering essential services, like immunization, drug supply, counseling, ANC services. Keeping track was all the more difficult and left-outs easily evaded the sight as well as the mind. The tough grind faced by the ANMs in making door-to-door visits for the beneficiaries to avail the services was not rewarding. Most of the cases required constant follow-ups but she would never find all beneficiaries as a single group.

Thus the "Nutrition and Health Day" strategy was envisaged, with a view to improve access and utilization of services by eligible women and children especially from the inaccessible pockets where magnitude of malnutrition and mortality is very high. The THR-TAKE HOME RATION component linked to it had twin objectives:

- ❑ To improve the coverage of outreach target population who go out of village in search of livelihood and miss out on the feeding;
- ❑ To provide daily ration to U3 children, pregnant and lactating mothers during each monthly Nutrition and Health Day with counseling, basic curative care and family planning services from the ANM. THR would be used as incentive to improve the coverage of health facilities like immunization, drugs supply, ANC services, growth monitoring, imparting health education and counseling services.

Our experience in Bankura of Monthly Take Home

Table 4.6 Impact of Nutrition & Health Day

Beneficiary category	Enrolment prior to Nutrition & Health Day	Enrolment after Nutrition & Health Day	Actual coverage prior to Nutrition & Health Day	Actual coverage after Nutrition & Health Day
0-3	28	71	20	56
P/L women	16	34	14	28

Source:- Care India

Ration as part of fixed Nutrition and Health Day initiated by Women and Child Development Department with support of Health and Family Welfare Department. Government of West Bengal is as follow:-

Enrollment and coverage of U3, pregnant and lactating mothers have been increased from out reach pockets significantly. The data collected in absolute number from one of the AWCs of Sonamukhi block substantiate the above statement.

1. Mother attendance for weighing of the children (less than 3 years) has been increased from 30 percent to 73 percent during the implementation period.
2. Take Home Ration collection is relatively better among rural, tribal, nuclear families, working mothers & families from villages with 3 Km. of the Anganwadi centres.
3. The provision of THR at demonstration sites showed a statistically significant increase in immunization among young children including

TT among pregnant women,.

4. Take Home Ration also ensured ICDS and Health program convergence by bringing ANMs and Anganwadi workers together on a fixed Nutrition and Health Day for the following activities – antenatal care, IFA distribution, weighing of U3 children and plotting their weight on the growth chart, Health and Nutrition education to women & distribution of ration in presence of community representative, which minimizes ration dilution at the centre level.
5. Social status of Anganwadi workers has improved in the eyes of the community because of their intense involvement in delivering health services along with food.

By and large INHP experiences reveal that Take Home Ration as part of fixed Nutrition and Health day is an effective strategy to ensure better ICDS and health program convergence, increased compliance of health interventions, and increased coverage of beneficiaries from the outreach pockets.

4.2.8.6. Challenges:

Table 4.7 Eligibility-vs-coverage with THR and after withdrawal of THR in a few tribal and non-tribal blocks of Bankura

Name of the Block	Number of eligible beneficiaries		Number of beneficiaries covered		Percentage (Coverage vs Eligible)	
	May, '05	June, '05	May, '05	June, '05	May, '05	June, '05
Ranibandh	7428	7181	7189	5171	97	72
Raipur	11283	11151	10653	6090	94	55
Khatra	7266	7210	6531	5277	90	73
Saltora	8265	8179	5754	4533	70	55
Gangajalghati	9953	9740	4323	3854	43	40
Indpur	8159	10133	8159	6492	100	64
Indus	9427	9477	8899	6146	94	65
Chattna	11796	10079	6863	6453	58	64
Sonamukhi	9610	9458	9610	7437	100	88
Patrasayer	9662	9467	396	4011	4	42
Bankura-I	5677	6152	751	1390	13	23

Source: - ICDS M.P.R. & AWCR (May & June, 2005)

Comparative analysis of eligible beneficiaries vs. has influenced the coverage. It is seen that the tribal coverage of all INHP blocks to understand the impact and the remote blocks are among the most affected of withdrawal of THR a strategy (from 1st June,'05) blocks.

By and large the experience in the district reveals that Take Home Ration as part of fixed Nutrition and Health day is an effective strategy to ensure better ICDS and health programme convergence at the lowest level, increased compliance of health interventions. The strategies are much more effective in areas/ blocks, which are outreach and where migration is also high.

Towards a baby-friendly community – an initiative

It's a tale of a village – Belowa of Sonamukhi block. Alpana Das, the Anganwadi Worker of the village works hard-day in and day out to promote newborn care, better mother and child nutrition and minimize infant death at the community level. She gets the support of active Change Agents, Self Help Groups including Belowa Bijoya Sangha (the SHG Cluster of that area) to ensure community health and nutrition.

Even today, Alochona breaks into tears while speaking about her child's birth and how Anganwadi Worker and Change Agents of the village guided her to ensure safe motherhood. The 'Kantha' she displays today as a tool for self-monitoring speaks of her success story. Every stitch on the piece of cloth sewed by her, reflects one leap forward towards safe motherhood



Self-monitoring Tool (Picture 4.2)

Behaviour Change Communication (BCC) found the strongest strategy to bring behaviour change at the household level. Pregnant and lactating mothers demonstrating the positive behaviours stitch self-monitoring tool in the form of 'kantha'.

Earlier child malnutrition was a growing concern of the village. Debidī – cluster leader recalls the day when the group monitoring tool was reviewed at their cluster meeting in presence of the AWW. “We could see with our own eyes that the nutritional status of our children was alarming;”



Group-Monitoring Tool (Picture 4.3)

Behaviour Change Communication (BCC) initiatives at the community level speak of community empowerment process. The underlying objective of this is to facilitate replication of positive behaviours with special focus on improved childcare, feeding practices and growth monitoring.

This called for immediate attention and integrated efforts of the community, service providers, members of Panchayat Raj Institution. As part of the community initiative (Cluster based management process with adequate support from all levels), it was decided to promote Anganwadi Centre (AWC) based nutrition garden to supplement quality nutrition to the food cooked at the AWC, promote adequate quantity through household level counseling and regulate growth monitoring (especially for malnourished and younger children).



Community Based Nutrition Garden (Picture 4.4 & 4.5)

Anganwadi Centre (AWC) based Nutrition Garden is a community based management initiative. It is to supplement quality nutrition to the food cooked at the AWC and promote adequate quantity and

thus regulate growth monitoring.

Now the Belowa Bijoya Sangha could start a nutrition garden on the land of a member of the cluster close to the AWC. They had purchased seeds of vegetables, fenced the garden, planted the seed by their own, watering from the neighbour's tube-well. Debi feels excited to see the day when they would be fed

with nutrition-rich food and grow. They have planned to distribute the products to the poorest families at the free of cost for their domestic consumption. This tale is being echoed in other areas of Bankura. With the objective to reduce malnutrition in children, ‘Sabujer Abhijan’ (journey to the green) initiative have been processed through community growth chart where monthly growth tracking of individual children (under-2) is being monitored by SHG/Cluster to identify malnutrition in children. This speaks for a move in the making community based care and management initiative towards “health for all”.

4.2.8.7. Immunisation :

Mothers of 12-23 month old children BCG vaccines received (card only) increased from 95.5 percent to 97.3 percent to 98.2 percent (RI-RII-RIII). DPT 3 vaccines received (card + Recall) increased from 86.7 percent to 84.4 percent to 89.2 percent (RI-RII-RIII). Measles vaccines received (card only) increased from 65.1 percent to 86.4 percent to 86.7 percent (RI-RII-RIII) (More than 20percent improvement). Measles vaccine received (card + recall) increased from 64.8 percent to 81.7 percent to 85 percent (RI-RII-RIII) (More than 20percent improvement)

Fully immunized (card only) increased from 62 percent to 81.8 percent to 84.2 percent (RI-RII-RIII) (More than 22 percent improvement). Timely completion of the measles vaccine increased from 57.5 percent to 65.5 percent to 75.1 percent (RI-RII-RIII) (More than 18 percent improvement). Fully Immunized (card + Recall) increased from 59.9 percent to 72.5 percent to 75.8 percent (RI-RII-RIII). Fully immunized on time increased from 53.8 percent to 59.5 percent to 63.5 percent (RI-RII-RIII) (More than 20 percent improvement). Drop outs from BCG to measles vaccination (card + Recall) reduced from 31.1 percent to 16 percent to 11.8 percent (RI-RII-RIII) (More than 20 percent drop).

When the respondents were asked about how they know about the immunization day, 29.2 percent respondent replied that it is held on a fixed day, which they know. This particular indicator is showing an upward trend from 17 percent to 29.2 percent (RII- RIII).

VITAMIN-A:

First dose of VITAMIN A (12-23 MO):

Card +Recall has increased from 69.8 percent to 76.1 percent to 84.4 percent (25 percent increase) from RI-RII-RIII (More than 15 percent improvement). Recall

only has increased from 47 percent to 69 percent RII-RIII (More than 22 percent improvement). Card alone has increased from 79.4 percent to 82 percent RII-RIII (10-17 MO).

Second dose (18-23 MO):

Card alone has increased from 18 percent to 40 percent (Low socio-economic status from 13.5 percent to 37.9 percent) RII-RIII (More than 22 percent improvement). Recall alone has increased from 25 percent to 50 percent (Low socio-economic status 23 percent to 75 percent) RII-RIII. (More than 25 percent improvement)

Challenges:

A couple of years back the coverage of Vita-A in Bankura was quite poor, more particularly from the third doze onwards. Realizing the potential of the AWW in terms of strengthening the coverage of Vitamin a pilot initiative was take up in the district, to make the AWW the depot holder of Vita A. Experience and data substantiate that the strategy has been working well. There is a need to strengthen the initiatives further and to scale up the strategy across the district.

Strategies which needs to be strengthened:

- ✓ Nutritional Health Day calendar to be strengthened (To strengthen contacts)-Possibility to make this as part of monthly reporting system.
- ✓ AWC as depot holder of IFA and Vita-A
- ✓ A health and Nutrition card to be implemented to track and ensure services during migration.
- ✓ Developing models for baby friendly communities. Promotion of active feeding for improving IYCF practices (quality, active feeding, feeding during and after illness) including personal hygiene and growth promotion.

- ✓ In order to ensure critical contacts the home visit planner and the centre visit supervisory checklist to be periodically updated and monitored.
- ✓ House hold level behavior tracking & micro planning through community participation using people friendly tool to capture household level behavior.
- ✓ Strengthening CHCMI programme through PRI and involving CA/SHG - how do we institutionalize.
- ✓ Using different channels of communication (IEC) for promoting household level feeding behavior of younger children.

4.2.8.8. Other issues :

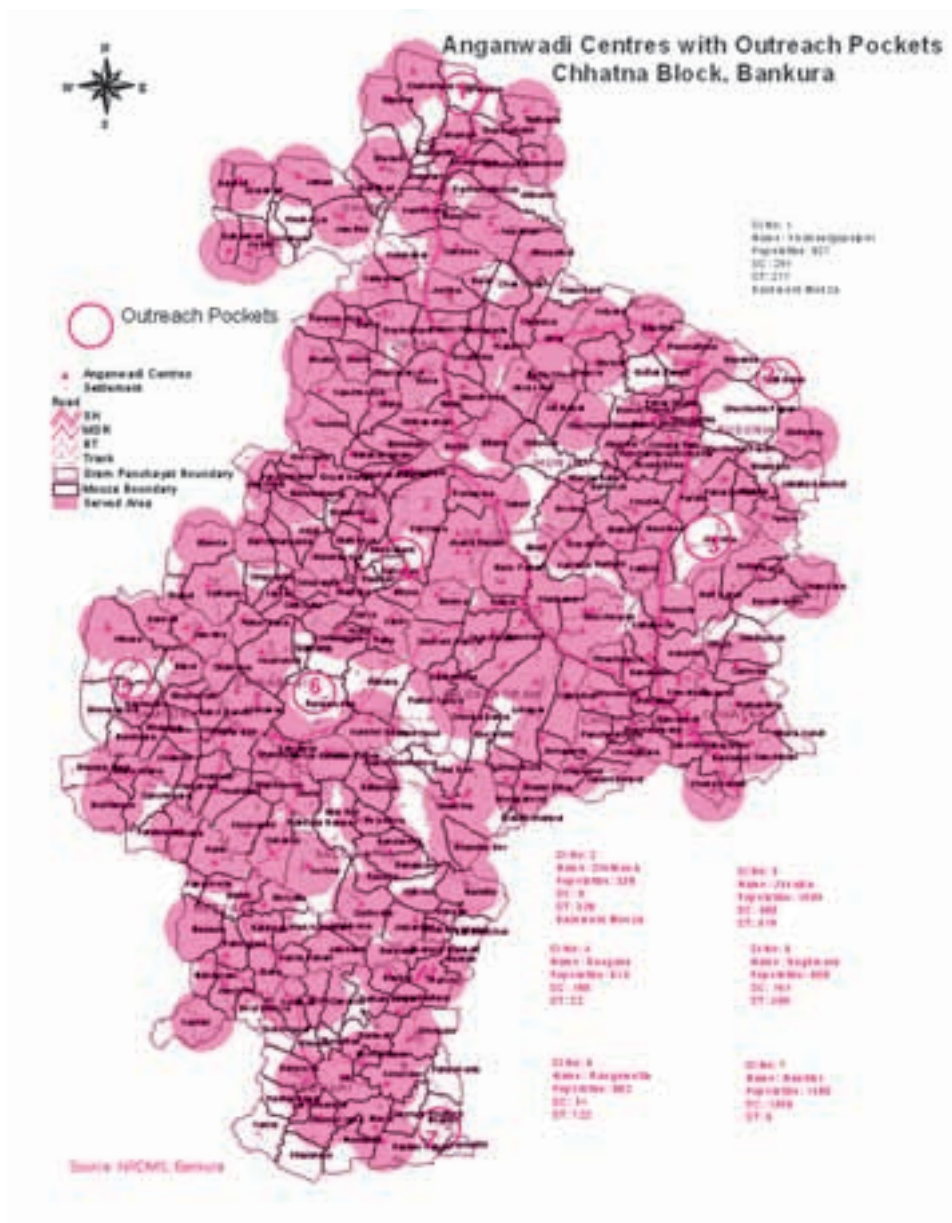
- ✓ One of the biggest challenges that lie in front is how to address nutritional security and other health services to the migratory population. In Bankura about 21percent of the households migrates for more than 6 months in a year and about 16percent of the households migrates with the entire family (base line survey of 59 RSVY Mouza, AC Nelson ORG MARG). Migration for more than 6 months hinders any institution building processes within the community. As the migratory population is among the most vulnerable, the challenge is even bigger.
- ✓ The density of population is almost half the west Bengal average, which means dispersed population

and people residing in small hamlets and often resulting to geographical exclusion. The geographical exclusion and social exclusion in the district has been overlapping.

- ✓ There are also problems with the food-grain supply to the ICDS centres. There are delays and the quality is also not up to the mark. There have been efforts to supply foodgrains by the self-help groups (SHGs) in this district. The quality has been very satisfactory and the accountability of the groups to community is very high.
- ✓ In Bankura Medical College, there are about 16000 deliveries per year. There is an urgent need to start a neo-natal care unit in the hospital. It is going to help in a big way in reducing IMR in the district.

4.3. Infrastructure :

Good infrastructure is a necessary condition for providing quality services. In this district hardly 20 percent of ICDS centres have their own infrastructure. Mostly, the centres are located in the clubs, private houses, or the primary schools. Since clubs, private buildings may not be located optimally, there is always a possibility of exclusion of certain parts. We made an analysis of the coverage of ICDS Centres in Chhatna Block on a GIS Platform. It has been observed that the uncovered areas are high in SC/ST percentage. A similar mapping has been undertaken for all the blocks.



4.5 Anganwadi centres with outreach pockets in Chhatna block

(Source : NRDMS, Bankura)

Habitation layers have been superimposed from Survey of India maps. This has helped in identification of uncovered pockets. In fact, the district has recently obtained a sanction of additional 506 centres. Location for the same has been planned using the GIS Decision Support System as indicated above. Natural barriers like river, forest, are also considered while selecting the location of a new ICDS Centre. Parallely there has been an effort to locate land for existing ICDS Centres so that building may be constructed. Land for ICDS centres are generally available provided it is looked for in the area where target children (generally the deprived

lot) reside. A detailed land bank has been prepared for all the ICDS Centres in the district.

4.4 Public Health :

4.4.1. Revised National Tuberculosis Programme (RNTCP) :

Tuberculosis is a major public Health problem & Number One killer of adults among all infectious diseases in India. Direct Observe Treatment (DOT) is the best strategy to cut the chain of transmission in the community. 50 percent of the population are

already infected with *Microbacteria Tuberculai* & recently co-infection with HIV worsened the situation. HIV infection increased the risk of TB infection more than 60 percent.

Bankura is the 4th biggest district situated in the South-Western part of the State. The Projected Population of the district is 3408408 (Projected 2006). The Tribal Population in the District 9 lakh & nearly 80 percent of the population live in rural area. The district is divided into 8 sub-districts (Tuberculosis Unit). Each TB Unit approximately covering 5 lakh population, except in the Tribal area (2.5 lakh/TB Unit).

RNTCP programme started on 14th November 2000. The approach today is totally decentralized. At present there are 35 designated Microscopy Centres situated in all BPHC & a few PHC. Sputum microscopy is the diagnostic criteria & one of the most important component of DOTS strategy. There are presently 570 DOTS Centres. There are four DOTS centres run by the NGOs.

The goal of RNTCP is to decrease mortality & morbidity due to TB and cut transmission of infection until TB ceases to be a major public health problem. To reach the goal we have two objectives (1) Cure rate 85 percent among newly detected infectious cases (Sputum Smear Positive) (2) Case detection of 70 percent of such cases.

ARTI (Annual Rate of Tubercular Infection) in east zone of India is 1.5 on this basis at least 203 patient/

lakh/year in a community should be detected.

Though Bankura District has achieved both the objectives yet we are lagging behind in total case detection i.e. 203/lakh population/year. The total case detection rate was 128/lakh in 2005. Cure rate is 89 percent, & Case detection rate is 82 percent, death rate is 4 percent, and defaulter is less than 2 percent.

The major constraints of the programme are:

- i) Less detection of Sputum Negative and Pulmonary Tuberculosis.
- ii) DOTS strategy not taken up for the Municipal areas.
- iii) Involvement of the general practitioner, Private Hospital & Poly clinic.

To overcome the situation the district has taken the initiative to:-

- i) Retraining the Medical Officers to diagnose the sputum negative case.
- ii) X-ray facilities to be available in remote PHC (Including Mobile Tuberculosis Facility).
- iii) To conduct sensitization programme through IMA for general practitioner.
- iv) To implement DOTS intervention in municipal areas through other programmes.
- v) Involvement of the NGO for DOT provision.
- vi) Involvement of tribal chieftains in disseminating information and motivating the villagers

Performance on RNTCP at Bankura District (Period November, 2000 to June, 2006)

Total No. of Patients put on Treatment up to June 2006 : 24285

Result of Treatment Outcome upto June, 2005

A) Total number of patients put on treatment :	20015
B) Outcome	
i) Number of patients cured :	17851
ii) Number of patients died :	753
iii) Number of patient-failure, i.e., number of patients with sputum positive at the end of treatment :	220
iv) Number of default, i.e., number of patients who have given up the treatment :	1119
v) Number of patients transferred out :	72

We may now have a look at the age profile of the newly detected cases :

Table 4.8 Age-wise distribution of Smear Positive new cases in the year 2004 & 2005

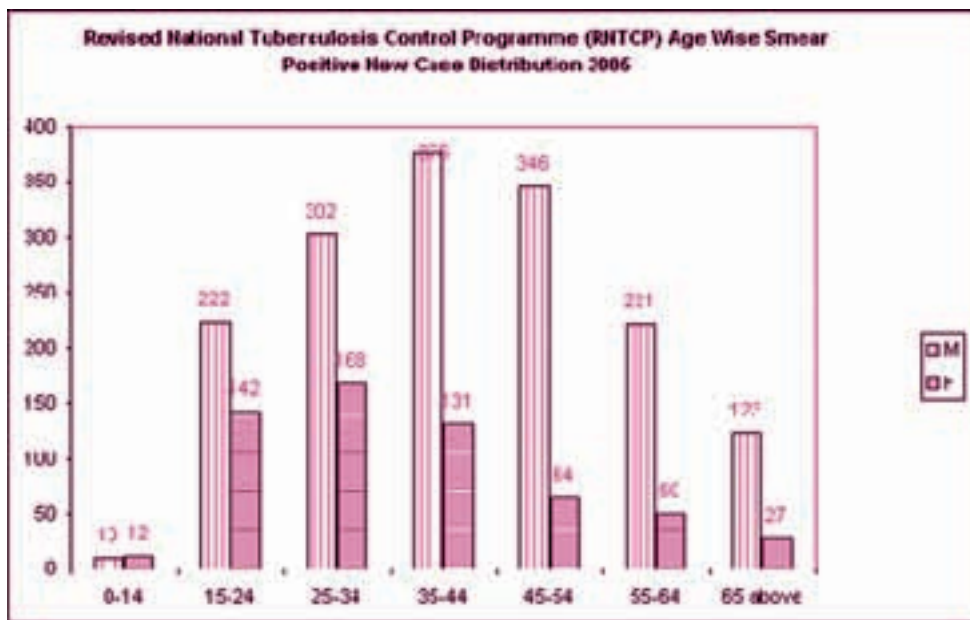
**Age-wise distribution in 2005 (Smear Positive new case)
Age-group (Years)**

0-14		15-24		25-24		35-44		45-54		55-64		65 & Above		Total		
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
10	12	222	142	302	168	376	131	346	64	221	50	123	27	1600	594	2194

**Age-wise distribution in 2004 (Smear Positive new case)
Age-group (Years)**

0-14		15-24		25-24		35-44		45-54		55-64		65 & Above		Total		
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
15	17	223	155	311	153	368	128	339	59	205	41	98	15	1559	568	2127

Source:- Office of the Chief Medical Officer for Health, Bankura



4.6 Age-wise smear-positive new cases

(Source : Office of the Chief Medical Officer of Health, Bankura)

As can be seen, the proportion of women cases has decreased sharply for the age group of more than 15 years. As discussed earlier, the total new case detection is also less than the target estimated. This suggests that the detection of cases in women may not be happening properly. This is mainly because of self-abrogating

nature of women and their tendency to ignore physical ailments to the maximum extent possible. Collection of sputum by NGOs has been found to be very helpful in reaching out to the people, especially women. There seems to be a necessity to enhance this further.

4.4.2. Filariasis:

Table 4.9 Prevalence of filaria in Bankura

Micro-filaria (MF) rate	2000	2001	2002	2003	2004	2005
Bankura	5.06	2	3.69	2.45	2.68	3.03
Bishnupur	5.7	3.47	3.95	2.9	1.56	3.30
Disease rate	2000	2001	2002	2003	2004	2005
Bankura	5.68	6.32	11	9.6	5.56	10.9
Bishnupur	2.28	2.26	3.06	4.36	3.75	3.8

Source: Office of the Chief Medical Officer of Health, Bankura

Micro-filaria rate is defined as number of persons having micro-filaria out of thousand population and disease rate is defined as number of persons affected by the disease out of one thousand population on an average.

Filariasis is endemic in Bankura district. All the blocks are more or less affected, but urban filariasis control programme is the only ongoing programme in Bankura & Bishnupur Municipality, for which staff and logistics

are available. Therefore, the data on prevalence of filariasis in the rural area is not available. During survey, it is seen that some villages are highly infected with Filariasis. In 2004, one survey revealed that Arkama village of Khatra Block has 5.8 percent of m.f. infection & Indpur village of Indpur block has 7.3 percent of m.f. infection.

National Filariasis Day is observed for one day in a year except the normal activities of Health & Family Welfare Department of the government.

Table 4.10 Observance of National Filariasis Day

	2004		2005	
	Number of patients	Percent	Number of patients	Percent
Targetted population	3120259	100	3067482	100
Population covered	1587874	50.88	2353725	76.73
Total population who have consumed DEC tablets	1587874	50.88	2353725	76.7

Source: Office of the Chief Medical Officer of Health, Bankura

The following steps have been taken to combat the situation:

1. All Block Primary Health Centres (BPHCs) have been provided with sufficient D.E.C. Tabs to treat all filariasis cases reporting to BPHC.
2. State government has been asked to provide fund & logistic to carry out active search for filariasis case through night blood survey in all blocks.
3. To reduce morbidity, hydrocele operation is being done in rural hospitals through camps.

Recommendation

Rural filariasis control programme should also be adapted in line with the urban filariasis control programme.

4.4.3. Diarrhoea:

Diarrhoea occurs in almost all the blocks of Bankura district throughout the year. Sporadic outbreak occurs mainly in late summer. Two reasons for this disease are identified :

1. During summer, source of water is scarce. Some water is used for washing and other house hold purposes, which very often infects the drinking water.
2. Early showers of rain washes the night soil of catchment area of dug-wells used for purpose of drinking water and the infected subsoil water drains into the kutchha dug-well & even tube-well.

Diarroheal diseases :

There is a steady increase in diarrhoeal diseases, both in incidence and death. But the apparent increase is not the true scenario, as the increase is due to the fact that there is increased vigilance and better reporting in comparison to the previous years. There has been an increase in the safe drinking water supply, even in remote

villages. Still, the target remains unfulfilled. It can be achieved only by creating public awareness to use safe drinking water and early recognition of signs of dehydration, so that corrective measures can be initiated at the earliest by providing Home Available fluid, ORS or hospitalisation. The figure below gives an account of trend of Diarrhoeal diseases in Bankura District.

Table 4.11 Prevalence of dysentery and diarrhoeal diseases

Year	Acute Gastro-Enteritis		Bacillary Dysentery		Diarrhoeal Diseases		Total number of patients	
	Number of patient		Number of patient		Number of patient			
	Affected	Died	Affected	Died	Affected	Died	Affected	Died
2002	8986	23	55	0	23219	1	32260	24
2003	14824	24	278	0	15708	2	30810	26
2004	21932	30	796	0	25913	3	48641	33
2005	26911	23	616	0	30841	3	58368	26

Source: Office of the Chief Medical Officer of Health, Bankura

Recommendation

For the above reasons, every village is prone to diarrhoeal outbreak in the season as well as any time during the year. To combat the situation, the following measures are to be taken.

1. Provision of safe drinking water by pipe water supply & deep tube-well construction.
2. Provision of sanitary latrine for every family has to be ensured. In addition, I.E.C. is the key factor. It is done during the outbreak season by miking, leaflet distribution, video show, public meeting & door-to-door visit.

4.4.4. Malaria:

Malaria is a major public health problem in Bankura District. Majority of the cases occur in Ranibandh Block, which is a hilly and tribal block .

The causes of increase in Malaria and action taken there of is summarized below:

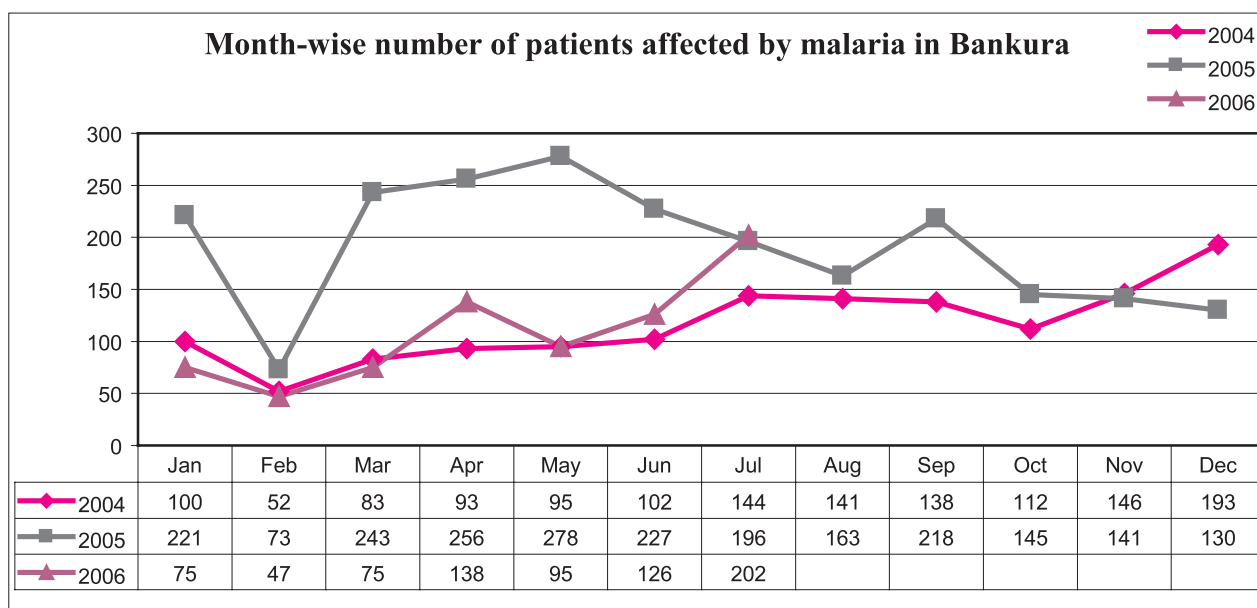
Resistance to DDT : Since 2002, vector (Anoph. Culicifacis) has become 100 percent resistant to DDT. State government has been requested to change to the insecticide malathion which has not been supplied to

West Bengal by Central government till now, we are compelled to continue to spray with DDT, as it reduces the infection from mosquito to some extent.

Resistance to chloroquine : Malaria parasites have shown resistance to chloroquine in Ranibandh and it has crossed 25 percent mark in 2004. So this year alternative drug policy has been adopted since June, 2005. Now patients in Ranibandh Block are being administered with alternative drug in combipack (Sulfadoxin and Pyrimethaprin), which is more effective & easier to use.

Inaccessibility : Large portion of the hilly & forest area was not easily reachable by health staff from block level. To combat this, all vacant posts of Health Assistant (Female) has been filled up and 165 drug distribution centres has been established by trained Anganwadi Workers at village level.

Lack of personal protection : Poor & illiterate villages are not in a position to afford personal protection like use of mosquito net. So one thousand mosquito nets has already been procured and distributed in most affected villages, ensuring that every individual uses insecticide-treated mosquito net.



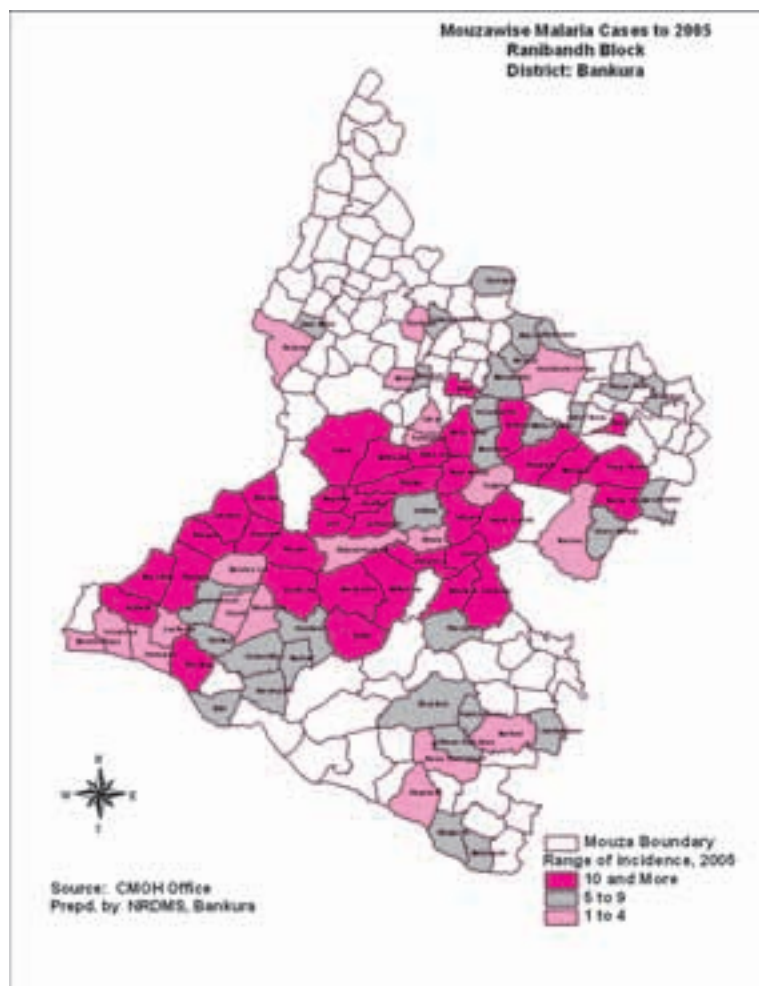
Graph 4.7 Trend of malaria in Bankura

Source: Office of the Chief Medical Officer of Health, Bankura

The above data clearly shows that the incidence of malaria has declined during 2006 compared to the year 2005. The success has been due to the following facts:

1. Intensive mass survey and administration of Fever Radical Treatment (FRT) in most affected villages of the most affected block, i.e. Ranibandh and contiguous blocks i.e. Raipur & Sarenga. An effort

has been made to do mass radical treatment for those who are not suffering from fever. However, it is generally not possible to find villagers since they normally go out for work and coverage is only partial. To start this process prevalence of malaria was first plotted on a GIS based map as shown in map 4.7.



Map 4.8 Mouza-wise malaria cases in Ranibandh block

The mouza showing high prevalence has been taken up first. Similar exercise has been done for contiguous blocks since December, 2005. This has led to a decline of prevalence in 2006.

1. Filling up of posts in Sub-Centres in Ranibandh.
2. Provision of insecticide treated bed nets in highly infected villages. Since Ranibandh accounts for 70 percent of the total malaria cases in the district, the bed nets have been distributed there. So far, 3500 bed nets have been distributed. However, there are problems with respect to its use and efforts are being made to take help of NGOs in bringing about those behavioural changes.
3. 165 Drug Distribution Centres (DDCs) have been established in all the Anganwadi centres of Ranibandh Block. Establishment of 100 more DDCs and 200 Fever Treatment Depots (FTDs) in Ranibandh and 5 other Blocks are in process. Local

voluntary workers have been engaged for running FTDs where collection of blood slides and radical treatment of all positive cases will be done.

4. During the month of June 2006, Behaviour Change Communication Campaign have been extensively started in 10 Blocks, 14 Sub-Centres and 19 villages. Under this programme, people are being motivated to have personal protection measures and environmental measures to reduce mosquito breeding places

Some challenges for Anti-Malaria Activity-

1. Vector is 100 percent resistant to DDT, which is still being used for seasonal spraying. Malathion is to be used as soon as it is supplied.
2. Mosquito net could not be provided to all the affected population. It would have helped to a great extent in solving the problem.

3. Inaccessible jungles having permanent source of Anopheles breeding place with hamlets within flying range of vector.

4.4.5. Leprosy :

Leprosy has been a major problem in Bankura for a very long time.

At the time of starting MDT in 1988 the Prevalence Rate was 72/ 10000 and over a period of time MDT come to be applied through out the district in a substantial way. Leprosy was regarded as a perennial problem with no solution in sight and the introduction of Multi Drug Therapy (MDT) during the last 20 years resulted in enormous progress towards combating the disease. The leadership provided by the authorities, the strong commitment of the staff and the support of

NGOs have together helped to reduce the burden of Leprosy by almost 80 percent.

The case strategy for Leprosy elimination is to identify all leprosy cases and cure them with MDT. For too long, the responsibility for identifying cases of leprosy was held solely by Health Services, particularly the specialized (Vertical) leprosy services. While the approach had certain advantages in certain situations, the major disadvantage was the relatively poor coverage of the population by these specialized services. This resulted in a large number of patients remaining undetected.

In the year 2003, April, the Basic Health Services to take over responsibility for specialized leprosy control services. ANMs' working close to the rural community were to take the responsibility for leprosy treatment in their Sub-Health Centre areas.

June' 05	July' 05	Aug' 05	Sep' 05	Oct' 05	Nov' 05	Dec' 05	Jan' 06	Feb' 06	Mar' 06	Apr' 06	May' 06	June' 06
5.78	5.60	5.38	5.21	5.24	5.09	4.64	4.18	3.61	3.34	3.13	2.99	2.95

After integration of vertical programme of Leprosy with the general Health Care Staff the position of the district is improved. P.R. is one of the indicator to show the improvement of the district status. PR status of

Bankura district from June '05 to June '06 is given below.

Comparison with the previous years the achievement is as follows:

March'02	March'03	March'04	March'05	March'06
6.68	6.36	6.63	6.33	3.34

In case of Ranibandh Block, where PR is highest in the district, the progress is as follows:

June' 05	July' 05	Aug' 05	Sep' 05	Oct' 05	Nov' 05	Dec' 05	Jan' 06	Feb' 06	Mar' 06	Apr' 06	May' 06	June' 06
15.34	14.37	14.01	13.56	12.93	11.05	9.35	9.26	7.78	6.98	6.88	6.18	5.83

The improvement is achieved by regular visit to Sub-Centre, PHC and BPHC, validation of the new cases, regular IEC, defaulter tracing, improvement in MDT

distribution, and regular training to the general Health Care Staff.

Table 4.12 Block and Municipality-wise balance caseload with their PR (as on July, 2006)**Bankura sub-division**

Sl. No.	Name of the Block	Total population	PB			MB			Grand total	P.R.
			Ad.	Ch.	Total	Ad.	Ch.	Total		
1	Gangajalghati	175852	32	2	34	34	6	40	74	4.20
2	Bankura-I	104030	21	1	22	30	0	30	52	4.99
3	Bankura-II	133961	12	3	15	34	3	37	52	3.88
4	Chhatna	183675	23	7	30	28	3	31	61	3.32
5	Barjora	194305	14	2	16	42	3	45	61	3.14
6	Mejia	82629	8	1	9	10	0	10	19	2.30
7	Onda	239421	25	4	29	45	2	47	76	3.74
8	Saltora	131940	11	3	14	48	5	53	67	5.07
Total		1245813	146	23	169	271	22	293	462	3.71

Bishnupur sub-division

Sl. No.	Name of the Block	Total population	PB			MB			Grand total	P.R.
			Ad.	Ch.	Total	Ad.	Ch.	Total		
1	Sonamukhi	154491	8	3	11	14	0	14	25	1.62
2	Patrasayer	178080	7	0	7	14	1	15	22	1.23
3	Indus	165909	4	0	4	17	1	18	22	1.33
4	Joypur	153589	0	0	0	13	0	13	13	0.85
5	Bishnupur	150627	15	1	16	16	1	17	33	2.20
6	Kotulpur	181865	7	1	8	8	0	8	16	0.88
Total		984561	41	5	46	82	3	85	131	1.33

Khatra sub-division

Sl. No.	Name of the Block	Total population	PB			MB			Grand total	P.R.
			Ad.	Ch.	Total	Ad.	Ch.	Total		
1	Khatra	111334	10	1	11	21	1	22	33	2.96
2	Ranibandh	113242	17	0	17	37	6	43	60	5.30
3	Hirbandh	78697	13	1	14	12	0	12	26	3.30
4	Raipur	164222	35	4	39	24	2	26	65	3.96
5	Sarenga	103257	9	0	9	12	0	12	21	2.03
6	Simlapal	138336	8	2	10	32	0	32	42	3.04
7	Taldangra	139750	11	1	12	20	0	20	32	2.29
8	Indpur	149603	14	2	16	41	3	44	60	4.01
Total		998441	117	11	128	199	12	211	339	3.39

Municipalities

Sl. No.	Name of the Block	Total population	PB			MB			Grand total	P.R.
			Ad.	Ch.	Total	Ad.	Ch.	Total		
1	Bankura	139785	30	43	73	37	6	43	116	6.15
2	Bishnupur	67242	3	1	4	23	0	23	27	4.01
3	Sonamukhi	29691	2	0	2	2	0	2	4	1.34
Total		236718	35	44	79	62	6	68	147	4.94
Total caseload with PR		3465533	339	83	422	614	43	657	1079	3.02

Balance case load = Number of persons having leprosy at a particular time

Prevalence rate (PR) = Balance case load per 10,000 population at a particular time

PB : Pauci-Bacillary, MB : Multi-Bacillary, Child (Ch.) : Person below 14 years, Adult (Ad.) : Person above 14 years

Source: Zonal Leprosy Officer, Bankura

Strategy :

1. Promoting genuine community involvement and community action.
2. Building the capacity of General Health Care Services and motivating them to 'own' leprosy work.
3. Supporting the General Health Services through special teams in order to improve their performance.
4. Ensuring supply of drugs and other materials.
5. Regular I.E.C. and workshop.
6. Improve the urban area activities.
7. Try to prevent disability by the training to the health workers and teach the old treated patients about the 'self care'. Arrangement for the Reconstructive Surgery.
8. Rehabilitation of the age old and homeless leprosy patients.
9. Coordinating the activities of all partners.

Promoting community involvement and community action:-

Activities in these areas, particularly to create and improve awareness, have been part of the National Leprosy Programme (NLEP) for many years. These activities were also widely promoted during the Modified Leprosy Elimination Campaigns (MLEC)

and Block Leprosy Awareness Campaigns (BLAC). The programmes were highly successful because communities accepted ownership of their problems and institutions such as Panchayati Raj taking the initiative in discussing leprosy and seeking help and collaboration from the health services. In tribal areas involvement of tribal chieftain had been found to be very helpful.

Integration and building the capacity of general health services

It is easy to say that leprosy should be integrated within the general health services in order to improve coverage. But such integration has not been easy in practice. First, the historical burden of the vertical approach to leprosy, with its specialized workers, makes it difficult for general health services to accept leprosy work. In addition, even where some progress has been made towards integration, the specialized workers are unwilling to part with their ownership of leprosy work. They create impediments to integration specially in areas where supervision was weak.

Apart from these there is an urgent need to build the capacity of general health services and motivate them. In past, leprosy was once a difficult disease to deal with. Now the technology for diagnosis and treatment has been simplified to a very great extent.

4.4.6. AIDS :

There has been a upsurge of HIV/AIDS in Bankura district. Though it is still much lower than the incidence

rate in West Bengal, the situation is alarming as Durgapur shows an upward trend in infection among pregnant women, which is the sign of percolation of infection among the general public from the high risk group.

Efforts are being made to spread the message of ways of AIDS prevention, by various methods like training to health and allied personnel, awareness among truck drivers, forest dept. employees, Anganwadi Workers and NGOs. As awareness is the best tool of AIDS prevention, every effort is being made to reach out to the people.

In a few cases AIDS has been observed in migrating population. Since the migration happens on a regular basis, the population is vulnerable.

4.5 Drinking water & Sanitation in Bankura

4.5.1. Drinking water:

4.5.1.1. Availability of drinking-water in Bankura :-

The district of Bankura is known as drought-prone and in dry season water for drinking and other uses is a major problem for this area. Majority of the shallow wells go dry or retain scanty water, which dry up during winter and summer. The water level varies in the district from 1.5 mts. to 22 mts. A number of flowing tubewells exist along the banks of the Dwarakeshwar river, the Jaipanda river and the Champa stream. Artesian flows are generally obtained

from aquifers occurring between the depth spans of 30 mts. to 75 mts. In the Dwarakeshwar river basin, free flow of 25 to 34 litres per minute is obtained from 50 mm. diameter tubewell. The artesian pressure is weak and varies from 1.1 mts. to 6.5 mts. above land surface.

A survey was conducted by the Public Health Engineering Department to assess the pocket uncovered by the drinking water sources. The survey was conducted in 2003. 228 habitations had been found to have no source of drinking water and 359 habitations were partly covered on a scale of one tubewell per 250 population in a habitation. Habitation in this context refers to some households living together in a hamlet, 'para', 'tola' etc., whatever small the size of the population residing there may be. The scenario may have changed with the installation of new tubewells between 2003 & 2006, but the sorry state of affairs is that most of the tubewells go dry during summer leaving a sizeable population of the district without any safe source of drinking water and compelling them to take recourse to dugwells and other sources of water for drinking.

Hand-boring is done for installation of tubewells in most parts of the blocks like Bishnupur, Sonamukhi, Patrasayer, Taldangra, Barjora, Onda and parts of Sarenga and Raipur. In other parts of the district machine-boring is the only way for installation of tubewells due to hard rocks. Even in some areas, machine-boring even fails and efforts are being taken to extend piped-water facility to those areas.

Table 4.13 Extent of coverage of habitation with drinking water facility

Sl. No.	Name of Block	Number of habitations not covered	Number of habitations partially covered
1	Bankura-I	1	27
2	Bankura-II	0	28
3	Indpur	6	17
4	Saltora	1	0
5	Chhatna	12	19
6	Mejia	5	1
7	Gangajalghati	2	11
8	Barjora	8	42
9	Bishnupur	13	22
10	Kotulpur	5	29
11	Joypur	5	14
12	Indas	0	7
13	Sonamukhi	13	2
14	Patrasayer	21	10
15	Onda	6	7
16	Khatra	32	15
17	Ranibandh	18	10
18	Taldangra	8	19
19	Simlapal	32	9
20	Sarenga	10	14
21	Raipur	29	43
22	Hirbandh	1	13
Total		228	359

Source: Office of the Executive Engineer, Public Health Engineering Directorate (Civil), Bankura

Table 4.14 Coverage of rural piped water supply scheme

Programme	Number of piped water supply scheme	Number of villages covered	Number of habitations covered	Population covered (as per 2001 Census)
Minimum Need Programme	10	95	172	134409
Augmented Rural Water Supply Programme	14	180	374	222407
Pradhan Mantri Gramoday Yojana	6	21	34	18103
Augmented Urban Water Supply Programme	1	1	1	16632
Total	31	297	581	391551

Source:- Office of the Executive Engineer, Public Health Engineering Directorate (Civil), Bankura

The district has taken up the work of rain-water harvesting through micro-watershed approach, which will accelerate recharge of the ground water. It is expected that the process will raise the water table, which will enhance overall availability of water in the area.

4.5.1.2. Fluoride contamination in ground water in Bankura:-

Fluorine is a fairly common element that does not occur in the elemental state in nature because of its high reactivity. It accounts for about 0.3 gm/kg of the earth's crust and exists in the form of fluorides in a number of

minerals. Fluoride is found almost everywhere in the environment. It is available in air, water and virtually all foodstuffs. In sea-water, a total concentration of 1.3 mg/litre has been reported. In areas rich in fluoride-containing minerals, well-waters may contain up to 10 mg or more fluoride per liter. Level of daily exposure to fluoride depends mainly on the geographical area. Daily intakes ranging from 0.46 to 3.6-5.4 mg have been reported in several studies.

After oral intake, water-soluble fluorides are rapidly and almost completely absorbed in the gastrointestinal tract. Fluorides less soluble in water are absorbed to a lesser degree. Absorbed fluoride is transported via the blood; with prolonged intake of fluoride from drinking water,

concentration in the blood is the same as those in the drinking water, a relationship that remains valid up to a concentration of drinking water of 10 mg/litre. In warmer areas like Bankura, dental fluorosis occurs at a concentration below 1.5-2.0 mg/litre of drinking water, skeletal fluorosis takes place at a concentration of 3.6 mg/litre, crippling skeletal fluorosis develops where drinking water contains over 10 mg/litre of fluoride.

A study of samples tested from various districts is shown in the following table from which it is seen that Bankura has the highest concentration so far as presence of fluoride in ground-water is concerned.

Table 4.15 Concentration of fluoride in ground-water

Sl. No.	Name of District	Number of Blocks where testing done	Total number of samples tested	Concentration-wise (in mg/litre) number of samples			Max. conc. of F (mg/l)
				F<1.0	1.0<F<1.5	F>1.5	
1	Bankura	20	2198	2081	79	38	8.61
2	Birbhum	17	1905	1769	121	15	
3	Purulia	18	1629	1325	177	127	7.70
4	Bardhaman	6	730	728	2	0	0.689
5	Purba Midnapur	2	203	203	0	0	0.394
6	Paschim Midnapur	10	1198	1190	8	0	1.38
7	Cooch Behar	4	1576	1575	1	0	1.20
8	Uttar Dinajpur	3	1296	1279	14	3	1.84
9	Dakshin Dinajpur	6	1358	1233	88	37	6.41
10	Malda	6	1195	1177	14	4	2.54
11	Murshidabad	4	507	507	0	0	0.703
12	South 24 Paraganas	5	856	855	0	1	1.57
Total		101	14651	13922	504	225	33.036

Source : UNICEF

Table 4.16 Gram-Sansads having high fluoride concentration

Sl. No.	Name of District	Number of affected Blocks	Number of affected Gram-Sansads	Population affected (as per Census, 2001)
1	Bankura	10	38	1372970
2	Birbhum	7	15	966202
3	Purulia	17	127	2089256
4	Dakshin Dinajpur	5	37	882742
5	Uttar Dinajpur	1	3	249500
6	Malda	2	4	288078
7	South 24 Paraganas	1	1	351569
Total		43	225	6200317

Source: UNICEF

4.5.1.3. Iron contamination in ground water in Bankura:

Though iron content in drinking water may not affect the human system as a simple dietary overload, but in the long run prolonged accumulation of iron in the body may result in homochromatosis, a disease in which tissues are damaged. In Bankura quite high concentration of iron in ground-water has been found in Sonamukhi Municipality and areas of Sonamukhi Block adjacent to that Municipality. Iron concentration as high as 4.70 mg/litre has been found in that area whereas the maximum permissible limit of iron is 1 mg/litre. Effective preventive steps are required to be taken up at the right earnest so that the people consuming the contaminated water are not affected in future.

Table 4.17 Concentration of iron in some tubewells at Sonamukhi Municipality and adjacent area

Sl. No.	Site of tubewell	Iron concentration (mg/litre)
1	Banerjee Para	4.70
2	Sonamukhi Hospital outdoor	1.53
3	Barasanko	1.17
4	Block Office	1.27
5	Amalnagar	1.68
6	Naiphela	1.67

Source: Office of the Executive Engineer, Public Health Engineering Directorate (Civil), Bankura

4.5.1.4 Drinking water problems in municipality areas:

Like rural areas the three Municipalities face some specific problems related to the drinking water.

Bankura Municipality:

Bankura Municipality was established in the year 1865. At that time water of ponds and rivers were mainly used as drinking water and household water. Concept of dugwell started in the nineteenth century and the municipality took up this work by digging many wells and gradually developed the water supply system by establishing different pump houses. In twentieth century, first project of water lifting from river started. Gradually a network of water supply system has been developed in the municipality and the present infrastructure is shown in table 4.18.

Except the fact that only 65 percent of the population is being supplied with piped water supply, during summer the piped water supply decreases by 35 percent to 40 percent due to non-availability of water from source as water level from river bed goes down. To combat the situation and to keep the water supply smooth in summer season, different steps has been taken, but the actual demand of municipal area has not been fulfilled.

Following strategy has been chalked out to address the issue :

1. Revival of the river Gandheswari:- Gandheswari in its total span of 32 kms. has emerged from Murlu range in Saltora and has flown into the river Dwarakeshar at Bhutsahar in Onda. Thus Gandheswari with its tributaries like Dhankora, Bankajore, Haroka, Amagora has its catchment in Bankura and as the history reveals, it was one potential river of the district influencing the lives and occupation of the people of catchment area throughout its course. According to the District Gazetteer of O, Malley, it was once the biggest tributary of Dwarakeswar. But of late, it has lost its relevance as the river-bed has silted and the water has become polluted due to effluents, specially from Bankura municipality. Water flows during the months of monsoon, but during other parts of the year, the river remains dry.

In the past, Gandheswari had a major role in providing drinking water to the inhabitants of adjacent areas with the people taking water from small pits on the river-beds, as the river was then alive for major parts of the year. With the purpose of increasing the flow of the river in the dry seasons of the year, it has been decided to construct a number of check-dams over the main river and its tributaries in the catchment area which will recharge the groundwater and enhance the stream over the surface. Effluent treatment plants are being thought about in the municipality area so that pollution of river-water does not occur. The groundwater recharge is expected to be enhanced by a number of check-dams and the deep tubewells at the river-bed will then be able to supply water to the municipality people.

2. Water resource mapping of the municipal area would be done to ascertain the recharge and discharge zones so that pond excavation may be taken up in the recharge zones, which will improve the groundwater availability.

3. Roof rain water harvesting would be propagated in educational institutions, industrial establishments and buildings which would newly come up.
1. Since the acquifer is very shallow for the rivers Gandheswari and Darakeswar near Bankura municipality area, all sand excavation near the two rivers would be stopped.
2. A sub-surface dike would be constructed at the confluence of Darakeswar and Gandheswari for more ground-water recharge.
3. A few existing big ponds will be re-excavated so that the water of these ponds after treatment will meet the requirement of some areas of the municipality.
4. In addition a pricing mechanism will be worked out for piped water supply so that people continue to use tube wells also for other purposes. As of now, when piped water supply is adequate, the tube wells are not used and slowly go defunct.

Bishnupur Municipality:

In Bishnupur Municipality area, although 45 percent of the population has been brought under coverage of the piped water supply scheme, yet per capita supply is still quite inadequate than actual requirement. Spot water sources like hand pump tube-wells and deep tube-wells function to fulfill the remaining need of the area covered with piped water supply line, but such insufficient spot water sources is not able to serve the purpose.

The scarcity of water in the entire area is particularly due to location of this municipality in a tropical zone, which is a drought-prone region with scanty rainfall, hard and gritty soil, inadequate ground-recharge capacity. Two-pronged approach of recharging the ground-water and using the water of the existing big tanks around Bishnupur are being thought about to solve the problem.

Sonamukhi Municipality:

Like two other municipalities, piped water supply has not been able to provide drinking water to all the inhabitants of this municipality and people have to take recourse to tubewells for drinking water. But the high iron concentration in the tubewells of the area is a major area of concern, which can be solved by bringing all people under the coverage of piped water supply and setting up of iron treatment plants. Similarly, roof-top rainwater harvesting may help.

4.5.1.5. Schools having no drinking water source:

For the last few years stress has been laid on the installation of tubewell at each Primary School of the district so that the children are not deprived in getting potable drinking water. Effort is now on to complete the job so that no Primary School remains without tubewell by the end of 2006-2007. A review of the progress made so far (table below) implies that the target is achievable:

Table 4.18 Some statistics on drinking water for Bankura Municipality

Population (as per 2001 census report)	128811
Source of water	Ground water (river bed of Dwarakeswar and Gandheswari)
No. of Pump House	5 Nos.
No. of reservoir	7 Nos.
Per day requirement of water	25,20,000 Gallon
Actual supply made	16,79,400 Gallon i.e. 8mld (million litres / day)
Population covered by piped water	65percent
Population not covered by piped water	35percent
Hand tubewells	850 nos.
Street stand-post	3000 nos.
House hold connection	10106
Length of distribution network	500 kms.

Source: Bankura Municipality

Table 4.19 Drinking water facility in Primary Schools

Number of Primary Schools	3460
Number of Pry. Schools having drinking water facility	2329
Number of Pry. Schools without drinking water facility	531
Number of Pry. Schools in which installation of tubewell going on	310

Source: DISE Survey Report by DPEP

4.5.1 Sanitation :

Provision of proper sanitary facilities at each household and at each locality of the district is an important component of sanitation, which is required for better standard of living. Needless to say, installation of sanitary latrine at each household and its proper use is of prime necessity towards this end. So far as the use of sanitary latrines by the people of Bankura is concerned, the district is lagging behind. Total Sanitation Campaign (TSC) has been launched in the district with the twin

objective of making the people aware of the advantages of use of sanitary latrines and at the same time providing low-cost sanitary latrines to every household. Under the programme the people living below poverty line (BPL) get a subsidy for constructing the latrine, whereas for the above poverty line (APL) households, entire cost of the latrine is to be borne by the owner of the latrine. Even after four years of its launching, the campaign could not be speeded up as people could not be motivated on the use of the such latrines.

Table 4.20 Sanitation coverage in Bankura

Item	For APL households	For BPL households	Total
Number of household	375150	241953	617103
Number of household having latrine before the launching of TSC	55808	5307	61115
Target under TSC	319342	236646	555988
Number of toilets constructed			
During 2002-2003	24081	1364	25445
During 2003-2004	14961	13653	28614
During 2004-2005	27259	18711	45970
During 2005-2006	15954	4070	20024
From April, 2006 to May, 2006	1591	1191	2782
Total number of latrines constructed under TSC so far	84341	38494	122835
Latrines to be constructed	235001	198152	433153

Source : Bankura Zilla Parishad

Water scarcity is certainly an added problem in Bankura (specially in western and southern Bankura). In summer, water is not available even for bathing or for cattle in some villages. Thus water scarcity has to be addressed first if the sanitation movement has to succeed. Otherwise, the sanitary latrines will lie unutilized for the major part of the year. Bishnupur Sub-division, where water is less scarce, the movement

has high potential for success. In fact, Kotulpur block and Indus block have already reached close to the target. Wherever watershed development programme has taken off well, the Watershed Development Committee is being motivated to take up sanitation programmes in the micro-watershed areas. Block-wise scenario on sanitation is indicated in table 4.21.

Table 4.21 Block-wise scenario on sanitation

Sl. No.	Blocks	Installation of household latrines					
		Target under Total Sanitation Campaign			Achievement under Total Sanitation Campaign		
		For APL households	For BPL households	Total	For APL households	For BPL households	Total
1	Bankura I	9667	8103	17770	5412	2349	7761
2	Bankura II	13358	7184	20542	3142	2028	5170
3	Chhatna	19466	16196	35662	2838	730	3568
4	Onda	24365	16771	41136	1468	495	1963
5	Gangajalghati	16867	11474	28341	3297	540	3837
6	Mejhia	8123	5818	13941	1987	125	2112
7	Saltora	15629	7513	23142	2240	667	2907
8	Barjora	18720	14396	33116	1591	58	1649
9	Bishnupur	15865	10574	26439	3725	1111	4836
10	Kotulpur	18853	8185	27038	18853	8185	27038
11	Joypur	13475	9085	22560	3677	2743	6420
12	Sonamukhi	16544	11874	28418	3037	1801	4838
13	Patrasayer	15352	17332	32684	365	35	400
14	Indas	16248	10235	26483	15663	10235	25898
15	Khatra	10245	8950	19195	2095	1066	3161
16	Sarenga	8836	9335	18171	630	240	870
17	Taldangra	13945	10753	24698	878	97	975
18	Indpur	14075	13019	27094	7139	2591	9730
19	Hirbandh	6651	7651	14302	1316	445	1761
20	Simlapal	13345	10378	23723	1047	226	1273
21	Ranibandh	11559	10257	21816	3620	2631	6251
22	Raipur	17750	11967	29717	321	96	417
Total		318938	237050	555988	84341	38494	122835

Source : Bankura Zilla Parishad

4.5.2.1 School sanitation:

School sanitation has been taken up more vigorously since schools are expected to act as the nodal point to disseminate the message on sanitation. The objective of the programme is as follows:

- Provision of water and sanitation facilities in the school.

- To get the facilities used and maintained by the students and teachers of the school without any external support.
- To promote Health and Hygiene Education (HHE) to the students and also promote the same to the community through the school students.

We can have a glance at the progress made so far:

Table 4.22 Sanitation coverage in Primary Schools

Total number of Primary Schools	3460
No. of Pry. School sanitary latrines constructed during	
Year 2002-2003	NIL
Year 2003-2004	161
Year 2004-2005	616
Year 2005-2006	1001
April, 2006 to May, 2006	218
Total Cumulative (May'06)	1996
Toilets constructed from other source	638
Number of Pry. Schools without sanitary latrines	826
Number of pry. Schools in which construction of sanitary latrines is going on	725

Source: Bankura Zilla Parishad

It has been reported that the major portion of toilets are not being used in the district.

A study in this regard was conducted in two blocks, viz, Khatra and Chhatna between September, 2005 and February, 2006 to have an analysis of the impact of installation of sanitary latrines. The specific objectives of the study were to study:

1. The present status of problems in the schools without water and sanitation facilities.
2. The status of problems in the schools where toilets have been provided but there are no water facilities.
3. Other indicators to understand the effectiveness of the Total Sanitation Campaign are
 - Quality of construction
 - Whether the facilities are being used properly

by the students as well as the teachers.

- Whether the facilities are maintained properly.
- Whether the teachers are motivating community through the school children to the community to accelerate the ongoing rural sanitation programme.

Observations:

The survey was conducted for all the Primary schools of the two blocks. In Khatra Block, 60 percent of the schools have toilets and in Chhatna it was seen that 30 percent of the schools have toilets, both the blocks have 90 percent coverage as far as availability of drinking water is concerned. But in most cases students could not use toilets as the teachers are of the opinion that the students will make it dirty and habit of use of toilets is not grown amongst the students. A brief finding of the survey is shown in table 4.23.

Table 4.23 Survey report on the Primary Schools of Khatra & Chhatna

Block	Khatra	Chhatna
Total number of Primary Schools	116	239
Total number of Primary Schools having sanitary latrines	73	63
Number of Primary Schools with good quality of construction of sanitary latrines	40	35
Number of Primary Schools in which toilets are kept open for student	15	10
Number of Primary Schools in which toilets were found to be used	10	12
Number of Primary Schools in which running water in toilet was found	10	10
Number of Primary Schools in which water source is available in toilet	8	10

Source:- Office of the District Magistrate, Bankura

It may be seen that toilet is being used in hardly 20 percent or less of the schools where the toilets have been constructed. In fact, lady teachers are found to be more motivated on the use of toilets.

Gender Issues

Chapter 5

5.1 Introduction

The debate on women and development had already begun to take shape in the decades of 1970s and 1980s (UN decade for women 1975-85). The issue came at the center stage in the international arena in 1995 because of United Nation's Fourth International Conference of Women at Beijing as well as United Nations Social Summit Conference at Copenhagen in March 1995. The central message of the UNDP Human Development Report 1995 was 'Human Development If not Engendered is Endangered'. Accordingly UNDP suggested construction of gender related development index (GDI) and gender empowerment measure (GEM).

In West Bengal Human Development Report, 2004, Gender Development Indices for the whole state and for different districts were published. For West Bengal the index was calculated to be equal to 0.549. As far as different districts are concerned, Kolkata occupied the highest rank (0.642) and Maldaha was at the lowest rank (0.416). Bankura was placed in the tenth position (0.494) in this comparison standard.

The sex ratio (2001 census) was 934 for West Bengal and varied between 828 (Kolkata) and 955 (Midnapore) in different districts. In Bankura sex ratio was 953.

Female literacy rate in West Bengal was 60.2% as against the overall state level rate of 68.2 percent. Female literacy in different districts varied between 37.2 percent (Purulia, North Dinajpore) and 77.9 percent (Kolkata). In Bankura district female literacy rate was 49.8 percent as against male literacy rate of 76.8 percent.

Infant mortality rate among female children in different districts varied between 18 (Kolkata) and 89 (Maldaha) as against the corresponding lower and upper limits of male infant mortality of 15 (Kolkata) and 76 (Cooch Behar). In Bankura district the female infant mortality rate was 45 percent as against male infant mortality of 41 percent.

Main and marginal rural female workers in West Bengal constituted 29.70 percent of rural female population as against the corresponding male workers percentage of 54.30. In the urban area gender gap in this context was

more prominent – work force participation rate for female and male workers were 11.13 percent and 54.08 percent respectively.

5.2 Gender issues in Bankura district :

5.2.1 Our approach :

To analyse the status of women and the extent of gender discrimination in Bankura district, construction of gender related indices will be too complicated with too narrow perception of the actual problem. 'Ultimately the impact of development on gender must be measured in terms of changes in life options for women' (Meena Acharya, Puspa Ghimire, EPW, 2005). Not only material aspects of women's life determine life options for women but also by the whole context of women's existence – economic, political and social aspects. Hence, the approach adopted here is to select broad indicators of gender discrimination in Bankura district – some of which are objective indicators and some are subjective.

Objective indicators are those, which can be directly measured. For example, economic indicators like work force participation rate, ownership of economic resources by women, social indicator like sex ratio, educational indicators like literacy rate, enrolment ratio, health indicators like infant mortality rate, fertility rate etc. are measurable either in percentage or as 'number of women per thousand men'. For these indicators we have to depend on secondary data.

On the other hand, subjective indicators cannot be directly measured and their status are to be realized from qualitative standpoint with the help of case studies, focus group discussion (FGD) personal interviews and participatory rural appraisal (PRA) For example, to analyse the extent of women's political and social empowerment in Bankura district, we have to conduct subjective studies in different blocks and municipality areas regarding women's participation in community based committees, their inheritance on parental property, their status of control over family income and family resources, their average age of

marriage (since it is not recorded through compulsory registration), extent of different types of violence against women (physical and mental; within the family and outside), overall decision making power of women and the social status of single women.

The District of Bankura is situated on the western fringe of West Bengal and is one of the dry and drought prone areas of the state. The geography and topography distinctly differ in the northern and southern parts of Bankura. The area closer to Burdwan, which is the northeastern part, is fertile with multiple cropping and irrigation facilities. On the other hand the southwestern region is dry, arid and undulated. The livelihood pattern is mostly dependent on geography and topography of the region and it also determines the cultural pattern and gender roles and responsibilities.

Though women by and large are subjected to similar social discriminations and suffer from similar health problems across the country, subjective studies are essential to understand the impact of certain specific factors like caste, community, migration, scarcity of water, poor infrastructure etc on gender issues.

Hence, to have an in-depth realisation of the status of different subjective indicators of gender issues seven blocks have been selected on the basis of random sampling method. The block outcome of random sampling was Saltora, Chhatna, Gangajalghati, Bankura-II, Ranibandh, Indpur, and Bankura-I. We selected seven villages from the first six blocks and one locality in the Bankura municipality's area. Except these randomized sample villages, we purposefully included Indus block in our study to serve as a case study of 'all-women Panchayat'. In each village/locality we came into contact with groups of women, mostly representing different Self-Help Groups. Each group constituted 30 to 40 women of several age groups. Thus, we discussed with about 360 women from different corners of Bankura district. Additionally, in three villages we talked to male groups also to examine males' perception regarding women's status. Surveyed villages and localities represented a total population of about 17,000. For this focus group discussion (FGD) we used semi-structured questionnaires. We asked the questions through informal discussion and recorded their responses and answers. Moreover, for PRA chart papers and markers were supplied to them to describe women's daily routine in a clock-format.

The details of the type of villages visited was as follows:

1. Tribal village: Udaypur: Saltora, Bhalukgoria: Chhatna, Kamo: Ranibandh, Udaypur: Indpur, Kelia: Gangajalghati (1 tola)
2. Scheduled caste village: Kelia: Gangajalghati, Bisinda : Gangajalghati (1 Tola), Barogobindapur, Ruidaspara: Indas
3. General caste village: Bisinda: Gangajalghati, Arjunpur: Bankura-II
4. Urban slum: Ward No.19, Shitpara, Bankura Municipality.

5.2.2 Purpose of study :

Through the study we were looking for some basic behaviors and social norms, which are integral parts of the lives of women in Bankura as a whole. These systems become very important influencing factors for the health and decision-making power of women, which is a major component of development as a whole. This insight will help in determining the underlying causes behind certain behaviour, understand the logic behind the secondary data and also design strategies. The purpose of the study was not to develop a very scientific survey but to get a feel of the extent of disparity that exists in the District and whether there are any issues very specific to Bankura.

Besides our own survey, we have also used some other field works in similar lines :

1. Baseline and Techno-Economic Survey of Swayamsidha in Bankura, by State Institute of Panchayat Rural Development (2003)
2. A Survey of six blocks in Bankura district by CARE India-West Bengal to identify male perception regarding physiology, care, social and Financial Location of women (2003).
3. A field survey report of two all-women FPCs in Bankura district conducted by Ritajyoti Bandyopadhyay, Jadavpur University.

5.2.3 Indicators of gender discrimination in Bankura district :

5.2.3.1 Sex ratio :

- (i) One indicator used to assess society's treatment for women is the population sex ratio. The sex ratio in India has seen a downward trend throughout the 20th century reaching 927 in 1991 as against 972

in 1901. In 2001, however, the sex ratio improved marginally to 933 (0.6 percent). In West Bengal the sex ratio improved from 917 in 1991 to 934 in 2001 (1.8 percent increase). In Bankura district the sex ratio improved by a negligible percentage from 951 in 1991 to 953 in 2001, i.e. by 0.2 percent.

In twenty-two blocks of Bankura district and in three municipalities sex ratio varied between 971 (Patrasayer) and 928 (Indpur) in 1991, while the upper and lower limits changed to 984 (Bishnupur Municipality) and 926 (Mejia) respectively in 2001. Thus the range of variability in different regions of Bankura district increased between 1991 and 2001. While the sex ratio in Bankura Municipality, Chhatna, Saltora, Gangajalghati, Indpur, Khatra, Hirbandh, Ranibandh, Bishnupur Municipality and Joypur improved, the sex ratio in Bankura -I, Mejia, Barjora, Onda, Taldangra, Simlapal, Raipur, Sarenga, Bishnupur, Kotulpur, Sonamukhi, Sonamukhi Municipality, Patrasayer and Indus declined over the period 1991-2001. In Bankura-II block the sex ratio remained constant at a level 949. A complete data set in this sphere is given in table 5.1.

From column 3 of this table, we see that improvement in sex ratio is highest in Bankura municipal area (Bankura Municipality) – an increase by 2.18 percent, while decrease in sex ratio is highest in Bankura-I block (a decrease by 1.45 percent) followed by Kotulpur block (a decrease by 1.37 percent). In 1991 Patrasayer block witnessed the highest sex ratio. However with a decrease of .72 percent by 2001 the position of this block comes down to rank 3 in a decreasing order ranking of sex ratios of different regions. In 2001, Bishnupur municipality area (Bishnupur Municipality) occupies the highest rank followed by Chhatna block. In Bishnupur sub-division (except for the Bishnupur Municipality and marginal increase in Joypur), sex ratio has declined in all the blocks. In fact the instance of Kotulpur (which is considered relatively better off in terms of standard of living) the decline of sex-ratio reveals that it has no correlation with the income level of the family

Lowest sex ratio in Mejia may be due to the fact that most of migrated male workers and service holders do not shift their families from original place of residence.

Table 5.1 Sex ratio in different blocks and municipalities of Bankura district

(Figures within brackets in third and fourth columns show ranks)

Sl. No.	Block/Municipality	1991 Census	2001 Census	Percent change
1.	Bankura-I	967(2)	953(9)	-1.45
2.	Bankura Municipality	919(13)	939(16)	2.18
3.	Bankura-II	949(12)	949(13)	00
4.	Chhatna	963(3)	975(2)	1.25
5.	Saltora	950(11)	953(9)	0.32
6.	Mejia	929(16)	926(18)	-0.32
7.	Gangajalghati	946(13)	949(13)	0.32
8.	Borjora	944(15)	938(17)	-0.64
9.	Onda	958(6)	954(8)	-0.42
10.	Indpur	928(17)	941(15)	1.40
11.	Khatra	941(14)	951(10)	1.06
12.	Hirbandh	941(14)	944(14)	0.32
13.	Ranibandh	949(12)	962(4)	1.79
14.	Taldangra	960(5)	959(5)	-0.10
15.	Simlapal	953(8)	952(10)	-0.10
16.	Raipur	962(4)	958(6)	-0.42
17.	Sarenga	952(9)	951(11)	-0.11
18.	Bishnupur	954(7)	950(12)	-0.42
19.	Bishnupur Municipality	967(2)	984(1)	1.75
20.	Joypur	953(8)	956(7)	0.31
21.	Kotulpur	952(9)	939(16)	-1.37
22.	Sonamukhi	951(10)	944(14)	-0.72
23.	Sonamukhi Municipality	953(8)	950(12)	-0.31
24.	Patrasayer	971(1)	964(3)	-0.72
25.	Indus	953(8)	949(13)	-0.42
	District	951	953	0.20

Source: Census Reports 1991, 2001: reproduced from District Statistical Handbook, 2004

Adverse sex ratio can be attributed to a number of factors – (i) strong preference for sons, (ii) high infant mortality rate among female babies, (iii) early marriage of women and death of adolescent mothers – adolescent mothers are twice as likely to die from complications during pregnancy as are women 20 years or older.

Care India-West Bengal conducted a survey of five blocks (Gangajalghati, Indpur, Saltora, Bankura, Raipur) covering 1396 households of 24 villages. In this survey, males were interviewed to analyse their perception regarding community's preference for child – son or daughter, 84 percent of the respondents tried to establish strong preference for a male child while 16 percent revealed indifference between male and female child. The interviewee expressed different dimensions of privileges of being a male child – (i) more share of food, (ii) Preference in education, (iii) better quality food, (iv) better healthcare (v) right

to opinion sharing and (vi) right to get property.

This study, though small in coverage, reflects clearly the social gender bias in Bankura district – which can largely explain the adverse sex ratio in the district.

In the table 5.2, we present sex ratio for different social groups in different blocks of Bankura district. The table shows that sex ratio for general castes in almost all the blocks and municipalities (except Hirbandh block and Sonamukhi Municipality) are lower than the sex ratio for scheduled castes and scheduled tribes. In Hirbandh block the sex ratio for scheduled castes (941) is marginally lower than that for general castes (943). In 15 blocks out of 22, sex ratio of scheduled tribes are higher than sex ratio for scheduled castes. In rural area as a whole sex ratio for scheduled tribes is higher than the sex ratio for scheduled castes. In urban area, however sex ratio for scheduled tribes is lower than that for scheduled as well as general castes.

Table 5.2 Sex-ratio in different blocks and municipalities of Bankura district for different social groups

District /Sub-Division	Sex ratio for people belonging to		
	Scheduled caste	Scheduled tribe	General caste
Sadar subdivision	971	987	933
Bankura-I	963	944	947
Bankura Municipality	975	984	927
Bankura-II	986	955	933
Chhatna	971	1013	962
Saltora	965	975	936
Mejia	953	927	913
Gangajalghati	973	976	935
Barjora	958	980	927
Onda	983	981	938
Khatra Sub-Division	958	986	937
Indpur	951	974	928
Khatra	962	990	931
Hirbandh	941	947	943
Ranibandh	951	980	946
Taldangra	963	997	950
Simlapal	975	1003	930
Raipur	958	995	939
Sarenga	954	1003	930
Bishnupur Sub-Division	971	962	940
Bishnupur	981	953	931
Bishnupur Municipality	1041	1034	975
Joypur	965	954	950
Kotulpur	956	963	929
Sonamukhi	964	960	927
Sonamukhi Municipality	960	659	953
Patrasayer	981	1007	948
Indus	963	974	939
District	968	984	937
Rural	966	984	937
Urban	990	916	941

Source: Census 2001: compiled from District Statistical Handbook, 2004

Thus, from table 5.2, we may infer that

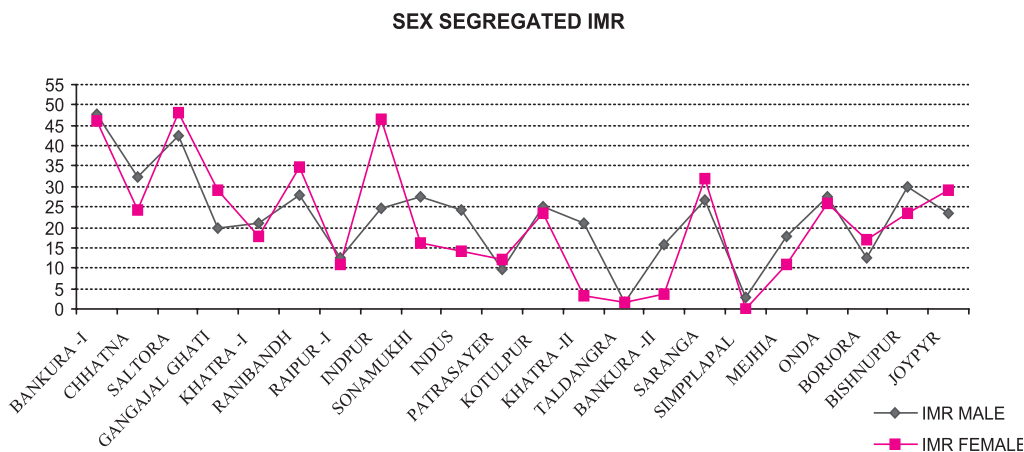
- (i) Gender discrimination among tribal population is less prominent compared to scheduled castes and general castes. This is supported by our survey of some tribal villages (Udaypur: saltora block, Udaypur: Indpur block, Kamo: Ranibandh block, Kelia: Gangajalhati block)
- (ii) Among general castes, considerably lower sex ratio indicates the possibilities of malnutrition, negligence of girl children, high infant mortality among female babies due to lack of proper care, unnatural death of women due to social evils like dowry, molestation, illegal sex determination before birth etc. If we could analyse the behaviour of different income groups of general caste people separately, gender discrimination among poorer section and lower middle class would appear to be more evident compared to the richer section. The attitude towards girl child has been changing favorably among higher incomes groups.

- (iii) Lower sex ratio among urban tribes reflects immobility of tribal women to the urban areas compared to scheduled caste and general caste population.

5.2.3.1 Infant mortality rate :

At birth, females enjoy a biological edge over males in survival. For this reason, child mortality rates (up to age five) all over the world are lower for girls than for boys. However, in some developing countries, more girls than boys die at a young age – which reflects a marked departure from the biological pattern observed in most countries. In these cases, it can be said that there is discrimination against the girl child in the provision of health and nutrition.

In West Bengal State Human Development Report it was stated that infant mortality rate (IMR) for girls would be higher than that of boys. In Bankura district the female IMR is reported to be 45 as against male IMR of 41. The sex segregated infant mortality rate is shown in graph 5.1.



Graph 5.1 Sex-segregated IMR

Source: ICDS Monthly Progress Reports, Jan., '05 to Dec., '05

5.2.3.3 Fertility rate :

Fertility depends on (i) age at which females marry, (ii) duration of the period of fertile union and the (iii) rapidity with which they build their families.

General fertility rate (GFR) is a common measure of fertility, which is obtained by relating the number of live births to the number of females in the childbearing ages. GFR is a true probability rate as the denominator

of the formula of GFR consists of the entire female population, which is exposed to the risk of producing children. According to the data set compiled by Biswajit Chatterjee & D.K Ghosh (Towards a District Development Report for West Bengal p.99), GFR in Bankura district was 93.87 in 2001 as against 78.40 in West Bengal.

The following table (Table 5.3) records the GFR in

different blocks of Bankura district and in the district as a whole for the period 2005. From the table it is observed that GFR is lowest in Hirbandh block (75.34

and highest in Sagenga (128.01), while the district GFR lies in between (104.94).

Table 5.3 Block-wise variation of general fertility rate

Block Name	GFR	Block Name	GFR
Bankura-I	97.81	Ranibandh	102.77
Bankura-II	101.90	Taldangra	115.11
Chhatna	109.38	Simlapal	108.03
Saltora	92.51	Raipur	82.98
Mejia	110.23	Sarenga	128.01
Gangajalghati	108.27	Bishnupur	107.77
Borjora	107.60	Joypur	96.73
Onda	110.86	Kotulpur	106.16
Indpur	109.37	Sonamukhi	108.59
Khatra	104.42	Patrasayer	102.41
Hirbandh	75.34	Indus	112.19
District Total			104.94

Source: N.R.D.M.S., Bankura

Fertility seems to have strong correlation with the educational level of the mother. Average number of children born to a woman in the India (according to the Census of 1991) was 4.3. This figure for illiterates was 4.4: for those who were middle but below matric, it declined to 3.8: but for those who got education up to matric, but below graduate, it was only 3.0 and for those with a graduate degree and above, it was only 2.3. Fertility in every category was higher in rural areas than in urban areas.

In Bankura district, however, data for specific education level vis-à-vis fertility rate is not available either in district level or in block levels. However, in the Baseline and Techno-economic Survey of Swayamsidha in Bankura by SIPRD, 2003 (henceforth, we shall refer to this as SIPRD Survey), a close relationship between female literacy and family planning practices was noticed among the seven blocks selected (Chhatna, Indpur, Gangajalghati, Ranibandh, Sonamukhi, Khatra and Saltora).

5.2.3.4 Indicators for education :

Education has been regarded both as an end in itself and as a means of realizing other desirable ends. It develops the personality and rationality of individuals,

qualifiers them to fulfill certain economic, political and cultural functions and thereby improves their socio-economic status. The universal declarations of human rights regard education as one of the basic rights of every human being. According to a World Bank study, increased education for women is not only a matter of justice but would yield exceptional returns in terms of world food security. The study concluded that if women received the same amount of education as men, farm yields would rise by between 7 and 22 percent. Increasing women's primary schooling alone could increase agricultural output by 24 percent. The benefits of schooling for women are not limited to increased productivity. Education can play a major role in improving the status of women and would significantly improve household health and nutrition, lower child morbidity and mortality and slow population growth. According to one UN study, child mortality would be reduced more effectively by providing women with ten years of education rather than by doubling their income, providing sanitation and piped water and turning every agricultural worker into a white-collar worker. In the agricultural context, education not only helps women to achieve higher productivity and enhances their social and professional status, but also enables them to implement measures to protect environment.

Table 5.4 Block-wise information regarding literacy rate

Sub-Divisions/Blocks/ Municipalities	Literacy rate (percent) as per Census, 2001			Ranks show highest to lowest (among the blocks)
	Male	Female	Total	
Sadar Sub-Division	76.7	48.7	63.0	
Bankura-I	77.7	48.1	63.2	11
Bankura Municipality	89.4	73.9	81.9	
Bankura-II	77.8	49.5	64.0	7
Chhatna	74.9	42.2	58.7	20
Saltora	71.3	38.1	55.1	22
Mejia	73.6	43.9	59.3	18
Gangajalghati	75.7	44.8	60.8	15
Barjora	77.6	51.9	65.1	5
Onda	73.2	45.7	59.8	14
Khatra Sub-Division	79.0	47.6	63.7	
Indpur	78.2	44.6	61.9	16
Khatra	79.5	47.7	63.9	12
Hirbandh	76.6	38.7	58.2	21
Ranibandh	79.0	43.8	61.7	19
Taldangra	78.4	51.5	65.3	6
Simlapal	77.4	48.4	63.2	10
Raipur	79.9	49.2	64.9	9
Sarenga	83.1	53.6	68.7	4
Bishnupur Sub-Division	74.8	52.1	63.7	
Bishnupur	71.4	44.6	58.3	16
Bishnupur Municipality	85.9	68.2	77.1	
Joypur	78.4	54.8	67.9	2
Kotulpur	78.9	57.7	68.6	1
Sonamukhi	70.7	45.9	58.7	13
Sonamukhi Municipality	86.5	70.7	78.8	
Patrasayer	67.5	44.3	56.1	17
Indus	74.5	54.1	64.6	3
District (as per Census, 2001)	76.8	49.4	63.4	
District (as per Census, 1991)	66.7	36.5	52.0	

Source: Census, 2001 & Census, 1991

In India, in spite of all the expansion that has taken place in the formal educational system, a sizeable number of Indian women have remained outside the reach of all education and are illiterate. In West Bengal, the level of literacy is higher than the national level. According to Census Report, 2001, the overall literacy rate in India was 65.4 percent, literacy for male was 75.8 percent and for female, 52.1 percent. In West Bengal, the overall literacy was 68.2 percent while the

female literacy rate was 60.2 percent. In the district of Bankura, the overall literacy rate was 63.4 percent and female literacy rate was 49.4 percent (as against male literacy rate of 76.8 percent). Thus, the literacy status (overall as well as female literacy) of Bankura district is lower than the state level as well as national level.

In Table 5.4, we record the block-wise data for literacy rate of Bankura district.

Table 5.5 Sex ratio of enrolment (Primary & Upper Primary level), 2004-2005

Name of Block/ Municipalities	Girls enrolment per thousand boys (Ranks are given in brackets)
Bankura Municipality	995(2)
Bishnupur Municipality	1019(1)
Sonamukhi Municipality	927(3)
Bankura-I	997(1)
Bankura-II	918(13)
Chhatna	879(19)
Saltora	874(20)
Mejia	914(14)
Gangajalghati	864(21)
Barjora	941(10)
Onda	883(18)
Indpur	949(9)
Khatra	899(17)
Hirbandh	900(16)
Ranibandh	931(12)
Taldangra	980(4)
Simlapal	959(7)
Raipur	977(5)
Sarenga	983(2)
Bishnupur	908(15)
Joypur	956(8)
Kotulpur	973(6)
Sonamukhi	941(10)
Patrasayer	940(11)
Indus	982(3)
District	937

Source: N.R.D.M.S., Bankura

Female literacy rates in different blocks (according to Census 2001) vary between a highest of 57.7 percent (Kotulpur block) and a lowest of 38 percent (Saltora block). In the three municipalities, i.e.; in urban area, female literacy is higher; highest in Bankura Municipality (73.9 percent) followed by Sonamukhi (70.7 percent) and Bishnupur (68.2 percent) Municipalities. Thus female literacy in rural area is much lower than female literacy in urban area. Moreover in 16 out of 22 blocks, female literacy is less than 50 percent, implying that the majority of rural women in Bankura are illiterate. Thus, district level female literacy comes to be 49.4 percent. On the other hand, male literacy rate in all blocks and municipalities is more than 70 percent and district level male literacy rate becomes 76.8 percent. However, between 1991 and 2001 percentage increase in female literacy is

higher (35 percent) than the percentage increase in male literacy (15.14 percent),

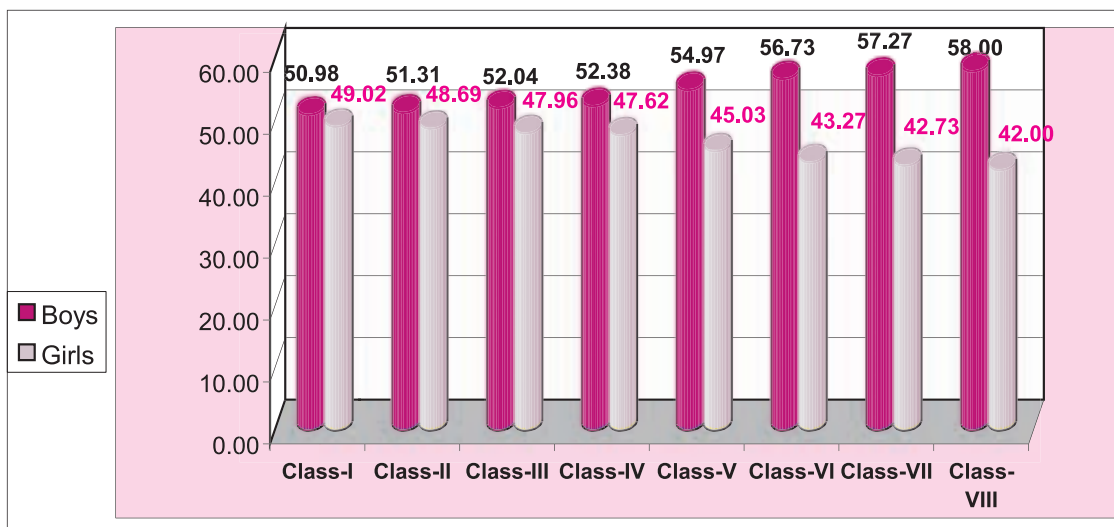
Lower female literacy rate compared to male literacy rate is naturally matched by lower enrolment of girls compared to enrolment of boys in primary and upper primary levels.

The table 5.5 shows the sex ratio of formal education (at primary and upper primary levels). The product of the ratio of total girls enrolled to total boys enrolled on a base of 1000.

Six blocks with highest ranks in female literacy rate in (Kotulpur, Joypur, Indus, Sarenga, Barjora, Taldangra) show high girls' enrolment also. On the other hand, blocks like Saltora, Gangajalghati, and Chhatna show low enrolment ratio for girls as well as low female literacy rate. In Bankura-I, rank for female literacy is

11 (48.1 percent) while rank for enrolment is highest with an enrolment ratio of 997. This reflects that the literacy rate among younger female generation of this block is much higher than the overall female population.

Another set of information regarding enrolment of boys and girls in classes I, II, III, IV, V and VI (DISE analysis, Sarva Siksha Abhijan) show that as class level goes up, girls' enrolment as percent of total enrolment decreases. This is recorded in the graph 5.2.



Graph 5.2 Comparison between boys and girls in class-wise enrolment

Source: DISE analysis of Sarva Siksha Abhijan, Bankura

From the graph, it is clear that with higher classes, girls' enrolment decreases and drop out increases. In fact, high rate of school drop out among female students is significantly responsible for poor educational status of women in Bankura.

In our sample survey of seven villages in six blocks, school drop out cases among the reported women in our focused group discussion (FGD) vary between 50 percent and 100 percent of total school enrolment of female population. The cases of high rates of school drop out have been enquired.

An in depth analysis of the causes of high school dropout rates among females (as came out from the FGD) is important for chalking out corrective 'action plans' for the district:

(i) Working mother: girls manage household work in absence of mother: Generally it was found that it is absolutely imperative that a woman must be skilled at executing the duties assigned as 'women's job'. This is a necessary requisite for marriage, so supporting mother at home is of prime importance. Most of the adolescents shared that they had very

little time for school work after attending the household chores.

- (ii) Difficulty to cope with syllabus:- Many of the women also mentioned that their daughters were dull and lacked the ability to cope with school syllabus. The quality of education at the primary school is also perceived as poor, as it ceases to make the children capable enough to cope with high school syllabus.
- (iii) Cost of providing formal education:- The majority felt that the biggest hindrance was the cost of providing private tuition, which was indispensable and also buying books and stationery. Books are provided free of cost only at the primary level.
- (iv) Long distance of schools:- Poor road conditions and distance over 3-4 km. makes the schools difficult to access. Especially for girls it becomes both physically difficult as well as insecure.
- (v) Early age of marriage:- The tradition of early marriage of girls makes parents reluctant to school going girls.

- (vi) Concept of practical utility of education among girls:-In one of the tribal villages, the community mentioned that as long as they are able to read and write it is enough for them. They do not expect to get employment, so the need to pursue education up to class X and beyond is not felt necessary.
- (vii) Inadequate nutrition and other supports to continue with formal education: - Most people of the villages survive on two square meals a day, once in the morning and once in the evening. High schools do not have provision for any snacks/ meals. Children have to walk for 4-6 km up and down, hence they are starved and it reduces their concentration. Basic requirements like stationery,

electricity/ fuel for lamps are all scarce in the villages. The present generation is the first generation literate in many households and there is no supportive environment at home. People are aware about the importance of education but circumstances are not conducive for engaging adolescents in schools.

In the sample survey of seven villages in six blocks, the percentage of women having attended school and able to read and write is 90 percent among the general caste, 40 percent among schedule Tribes (Except Ranibandh with 21 percent) and as low as 9 percent to 10 percent among the schedule castes. There are some exceptions like Udaipur, a Tribal village in Indpur where 81 percent of the women interviewed were literate.

Kelia in Gangajalghati is exclusively a SC and ST village. Tribal population was sending their children to school and 40 percent – 50 percent of the women were literate. It was interestingly noted that within the same environment the scheduled caste did not send their children to school and 100 percent of the women were illiterate. The SC women complained that their children were not treated well and that there were frequent fight among the children. There was a feeling of exclusion and non-acceptance from others in the school.

The general caste villages Bisinda and Arjunpur have primary as well as high schools within the village so accessibility is better and the number of girls enrolled is also high. The 2 out of 5 hamlets of the ST and SC were within half a kilometer from the primary school and all 5 were 2 or more kilometers from the high schools.

Though the literacy rate is quite high amongst the general caste, school drop out is also as high as approximately 65 percent. There were some graduates from the village but on an average the women drop out of schools from classes VII & VIII onwards.

Compared to the general caste community the hardship is greater in the tribal villages, in spite of that the tendency to attend school is quite good, but drop out rate is as high as 90 percent. Even in Indpur the drop out was as high as 56 percent.

The situation is not very different for boys from the Tribal communities. Discrimination was not very conspicuous among the Tribal. Among the general caste the men are given greater preference for higher

education (Graduation). Educated men with or without employment can fetch high amounts of dowry, which helps the family to get the daughters married.

5.2.3.5 Female work participation rate :

In India all over, women are traditionally attached to household affairs, while men are primarily responsible for earning money through economic activities. Women's going out for work is considered primarily to supplement the income for betterment of the living conditions or to make both ends meet. Even when a woman is employed she has to take full responsibility of the house and family. "We hardly find man exclusively engaged in household affairs (i.e. cooking, cleaning utensils, housekeeping etc.), even when he is not employed or many be doing such jobs in other's house or establishments such as hotels etc." (Ray, P.K; Yojana, 1997). Against this traditional background, GAD (Gender and Development) approach towards gender issues claim that direct female participation in gainful economic activity is a necessary condition for women's empowerment. According to Harish (1991), the

female participation in economic activity, besides increasing total participation and output, have other important implications. Firstly, it tends to reduce fertility and population growth, thereby raising per capita income and consumption. Secondly, women participation will result in their greater access to educational opportunities, Thirdly, female participation in economic activity affects the structure and operation of labour market.

According to 2001 census, in India, female work participation rate was 25.7 percent as against male work participation rate of 51.9 percent. In rural area female work participation rate was 31.01 percent and in urban area the rate come to be 11 percent as against the corresponding male participation rates of 52.4 percent and 50.9 percent. In West Bengal percentage of female workers in total female population in rural area was 13.07 percent in 1991 and 20.70 percent in 2001 (the corresponding male percentages were 52.09 percent and 54.30 percent). In urban area, the percentage of female

workers to total female population was 6.20 percent in 1991 (male – 49.65 percent) and 11.13 percent in 2001 (male 54.08 percent), (West Bengal Human Development Report, 2004).

In Bankura district, female work participation rate according to 2001 census was 32.04 percent, which was 24.66 percent higher than the national level female work participation rate and 3.35 percent higher than national rural female work participation rate.

This is mainly due to the fact that the economy of Bankura district is predominantly a rural economy and the rural economy is seriously backward with poor standard of living and poor infrastructure. Therefore, in addition to their domestic chores rural women have to go out to work in the fields along with their husbands in order to supplement their family income. Hence female occupation pattern in Bankura district shows that female workers are predominantly agricultural labourers. Women's participation in the service sector is marginal.

Table 5.6 Occupational structure of female workers in Bankura as per Census, 2001

Category	Number of female workers engaged in different categories of work	Percentage of female workers in different categories of work
Cultivators	108032	21.66
Agricultural labourers	243115	48.74
Household industry	48498	9.72
Other workers	99191	19.88
Total	498836	100

Source: District Statistical Handbook, Bankura, 2004

Table 5.7 Female work participation rate in Bankura

Sl. No.	Name of Block/ Municipality	Female work participation rate (in percentage)		
		As per Census, 1991	As per Census, 2001	Increase/decrease between 1991 & 2001
1	Bankura-I	25.31	31.14	23.03
2	Bankura Municipality	11.45	17.96	56.85
3	Bankura-II	20.36	36.34	78.49
4	Chhatna	31.72	39.06	23.14
5	Saltora	35.98	39.13	8.75
6	Mejhia	24.31	28.32	16.50
7	Gangajalghati	32.04	32.36	1.00
8	Borjora	22.01	27.48	24.85
9	Onda	22.66	38.90	71.67
10	Indpur	27.68	34.69	23.33
11	Khatra	32.62	35.72	9.50
12	Hirbandh	31.37	36.57	16.58
13	Ranibandh	37.39	44.67	19.47
14	Taldangra	26.77	30.24	12.96
15	Simlapal	30.71	33.47	8.99
16	Raipur	37.81	35.94	-4.95
17	Sarenga	37.6	35.19	-6.41
18	Bishnupur	26.93	20.32	-24.55
19	Bishnupur Municipality	16.91	17.96	0.30
20	Joypur	13.84	35.44	156.07
21	Kotulpur	11.17	41.04	267.41
22	Sonamukhi	23.29	35.64	53.03
23	Sonamukhi Municipality	16.01	24.49	52.97
24	Patrasayer	21.39	38.39	79.48
25	Indus	15.21	31.77	108.88
District		19.21	31.96	66.37

Source:- District Statistical Handbook, Bankura, 2004

In the table 5.7 we reproduce female work participation rates for different municipalities and blocks of Bankura district as given in 1991 and 2001 census reports

From table 5.7, it is seen that female work participation rate is highest in Ranibandh (44.67) and lowest in Barjora (27.48). However, by and large, Bishnupur subdivision by and large the growth in female work participation is much higher.

Thus, it is clear that in Bankura, whatever the pattern of female occupation is, 68.04 percent of female work force in the district as a whole remain outside the

mainstream of economic activities. Even in the block with highest female work participation (Ranibandh), the percentage of unemployed female workforce is as high as 55.33 percent.

In the SIPRD Survey, it was reported that in three blocks, viz, Chhatna, Sonamukhi and Khatra more than 50 percent women of the productive age group in the sample families are out of the workforce. In general, women's engagement in the tertiary sector is minimum. Women are mainly engaged in traditional activities of the secondary sector, viz. rice pounding, muri-chira making, broom stick making, traditional handicrafts etc.

5.2.3.6 Land ownership :

Table 5.8 Block-wise number of joint Patta holders & single women Patta holders upto December, 2005

Sl. No.	Name of the Block	Number of joint Patta holders	Number of single Patta holders		Total number of Patta holders	Percentage of joint Patta holders	Percentage of single women Patta holders
			Women	Others			
1	Bankura-I	643	251	2928	3822	16.82	6.57
2	Bankura-II	578	371	1322	2271	25.45	16.34
3	Chhatna	897	107	3654	4658	19.26	2.30
4	Saltora	561	197	5564	6322	8.87	3.12
5	MeJhia	416	32	3555	4003	10.39	0.80
6	Gangajalghati	1771	278	3900	5949	29.77	4.67
7	Barjora	1749	753	8671	11173	15.65	6.74
8	Onda	3645	825	3711	8181	44.55	10.08
9	Taldangra	891	824	9600	11315	7.87	7.28
10	Simlapal	1962	133	5367	7462	26.29	1.78
11	Khatra	460	150	2585	3195	14.40	4.69
12	Hirbundh	426	30	2239	2695	15.81	1.11
13	Indpur	221	231	3363	3815	5.79	6.06
14	Raipur	2156	918	7162	10236	21.06	8.97
15	Sarenga	3041	174	1009	4224	71.99	4.12
16	Ranibandh	290	91	3427	3808	7.62	2.39
17	Bishnupur	2329	366	4294	6989	33.32	5.24
18	Joypur	755	25	7326	8106	9.31	0.31
19	Katulpur	881	183	6219	7283	12.10	2.51
20	Sanamukhi	2073	301	7354	9728	21.31	3.09
21	Patrasayer	899	50	7913	8862	10.14	0.56
22	Indus	3363	2296	13379	19038	17.66	12.06
Total		30007	8586	114542	153135	19.59	5.61

Source : Office of the District Land & Land Reforms Officer, Bankura

Since agriculture and allied activities represent major occupation of female work force in rural area, women's right to land is significant not only for poverty reduction among women, but also for gender mainstreaming through enhanced women's voice and equality. In the district of Bankura, women's control and access to land is very limited within the households. Even in the Government Programme for redistribution of ceiling surplus land, women are not getting land in their names. This is clear from official statistics (Table 5.8).

Table 5.8 reveals that upto December, 2005, share of women among total Patta is only 5.61 percent as against men's share of 74.80 percent. Percentage of joint Patta to total Patta is 19.59. Among different blocks, share of the single woman Patta is lowest in Joypur (0.31 percent) and highest is Bankura-II (16.34 percent).

5.2.3.6 Reservation of seats for women in Panchayat bodies: decision-making by women :

Inclusion of women into the political process or governance is one of the major components of the process of gender mainstreaming. Since in Bankura district, 92.63 per cent of female population is rural and village Panchayats represent grass root of the federal structure of Indian polity, it is important to analyse women's empowerment, through Panchayati Raj in Bankura district. Seventy-third and seventy-fourth amendments to Indian Constitution resulted into 73rd amendment Act in 1992. This Act gave a new lease of life to the Panchayats in India. With this Act, not less than one third of the total seats in the Panchayats and Municipalities (urban local bodies) are

reserved for women. As a consequence, the scope of women for joining the decision-making bodies has been increased. However, since reservation of one-third seats is mandatory, it is important, for block level comparison, to note the percentage of reservation of seats in excess of the stipulated minimum. According to a district level data reported by prof. Biswajit

Chatterjee and Dilip Kumar Ghosh (“Towards a District Development Report for West Bengal”, p-100), in 1998, reservation of seats for women in Panchayat bodies was 35.49 percent in Bankura district and 35.43 percent in West Bengal. Thus, excess over stipulated minimum was only to the extent of 2.16 and 2.10 respectively for Bankura and West Bengal.

Table 5.9 Reservation of seats for women in Panchayat bodies, 2001

Block Names	Total seats	Seats reserved for Women	Percentage of reservation	Reservation in excess of minimum	Ranks
Bankura-I	100	39	39.00	5.67	12
Bankura-II	128	48	37.00	4.17	18
Chhatna	189	75	39.68	6.35	9
Saltora	132	48	36.36	3.03	21
Mejia	79	40	50.63	17.30	1
Gangajalghati	176	55	31.25	-2.08	22
Barjora	197	80	40.61	7.28	5
Onda	230	98	42.61	9.28	4
Indpur	142	55	38.73	5.40	17
Khatra	107	42	39.25	5.92	10
Hirbandh	81	37	45.68	12.35	2
Ranibandh	121	47	38.84	5.51	14
Taldangra	134	50	37.31	3.98	20
Simlapal	133	54	40.60	7.27	6
Raipur	170	66	38.82	5.49	15
Sarenga	100	40	40.00	6.67	8
Bishnupur	137	55	40.15	6.81	7
Joypur	148	57	38.51	5.18	16
Kotulpur	171	64	37.43	4.09	19
Sonamukhi	146	57	39.04	5.71	11
Patrasayer	167	65	38.92	5.59	13
Indus	164	71	43.29	9.96	3
District	3152	1243	39.44	6.10	

Source: NRDMS, Bankura

Table 5.9 gives the block wise information regarding the percentage of reservation of seats for women in Panchayat bodies and reservation in excess of minimum.

Thus, reservation of seats for women in Panchayat bodies is highest in Mejia and lowest in Gangajalghati. In Gangajalghati the reservation (31.25) is less than stipulated minimum (33.33).

Reservation of seats in excess over stipulated minimum for the district as a whole increased from 2.16 percent to 6.10 percent between 1998 and 2001.

The issue of reservation of seats, however, has been debated over time among national planners, politicians and elites.

One of the members of the National committee for perspective plan for women (1988), Nirmala Deshpande refused to accept reservation as on appropriate method for taking up the problem of women's political participation on the ground that reservation would imply that women were inferior and needed some kind of protection.

There is another group of people who oppose

reservation of seats for women in Panchayats for several reasons like (i) Women's participation will disturb the harmony of family life, (ii) women outside home will become target of anti-social elements, (iii) women's participation may reduce to mere nominal participation because their husbands try to dictate and control the entire situation. Prof. Probhat Dutta & Prof. Panchali Sen, however, in their book Women in

Panchayat (2003) aptly pointed out that all these arguments seem to be guided by the desire to perpetuate the status quo of patriarchy. Under the unfavorable attitude of society, it is difficult for women to come out on their own to participate in Panchayat bodies. Reservation of seats provides a force of compulsion on women and on the society as a whole.

Women in governance – a case study

Karisunda is a Gram-Panchayat (GP) in the Indus Block of Bankura District. This Panchayat comprises of 14 Samsads (booths) and a population of 17058. There are 15 AWC and 2 sub centres. Karisunda is about 15 to 20 kilometers from the main road and stretches along the banks of the river Dwarakeswar a tributary of the Damodar. The land is fertile and multiple cropping is practiced. Livelihood is agriculture based. Metal roads do not connect all villages. During monsoons commuting becomes quite difficult, so far for most of the villages of Indus Block accessibility is a major problem. The population is a mix of Muslims and Hindus. A substantial number of scheduled caste population are also present. There is a high school and about 15 primary schools in Karisunda GP.

The unique feature that makes Karisunda different from the other GP of Indus is that all its elected members are women. Out of the 18 members 3 are representatives of the Indus Panchayat Samity and 15 are GP members. Most of the women belong to families with active political background. Not just the men folk but some had sisters who were active party workers. They represented the entire cross section of the society from Muslim to general castes to scheduled caste. The education level also varied from master degree holder to neo literate. 8 members were from the SC and 1 from OBC, 2 were Mohammedan and rest were from general castes. 9 out of the 18 are school dropouts, 4 can only sign their names and only 5 have completed at least one formal level of education.

Most of the women are married. The usual age for marriage is between 15 to 20 years. Women are less educated than their husbands. The husbands were mostly graduates or at least completed high school. The main reasons for dropping out of school were marriage, housework, poverty and women felt that they are not intelligent enough. There was one lady who had studied up to class IX but married to an illiterate man. There were many instances when circumstances forced women to leave school or colleges. These situations were mainly applicable for women and the male child could continue with higher education even when the family is undergoing hard-ship. Women's mobility was also a barrier to their pursuing higher education as there are very few high schools and even fewer colleges, perhaps 1 college in Somamukhi serves 3 to 4 blocks. Sonamukhi College is 35 to 40 Km. from Karisunda. In the next generation the value of higher education has increased, but it was still found that that some of the members did not give much importance to their daughter's education saying that they were dull and least interested in studying. Though they themselves are promoters of women's emancipation it will perhaps take another generation to come out of the cocoon completely.



5.1 The women members of Karisunda Gram-Panchayat

Women have to carry out their entire household chores before attending their Panchayat activities. They even mentioned that though their husbands were eager to see them as Panchayat members they were not ready to share the housework. In spite of the inconvenience the members were extremely enthusiastic and eager to develop themselves. As the members were not engaged in any kind of employment generation activity they seemed to be able to provide more quality time to their role as the peoples representative.

The women Panchayat members were more competent in handling the public health issues. This was evident from the fact that Karisunda has been declared as a 'Nirmal Gram' or complete sanitation. Issues like Industrial & Infrastructural development and agriculture seemed to be an area of weakness. Perhaps women's lack of exposure about these issues, coupled with the mindset that these are the 'man's world' has restricted them from getting more involved. They themselves feel that their biggest strength is that they are extremely disciplined, they attend every meeting, carry out their work meticulously and want to do much better. They are aware that they do have a few weaknesses but are confident that they can overcome them with support. Talking of support it can be mentioned that a number of gentlemen were also present during the focus group discussion. These men seemed to be the mentors and the main support system. They were active members of the local political party and took this up as a challenge to develop a Panchayat with all women to see if women's commitment and sincerity can make a difference in the governance. The experiment will help the community at large to realise that women can play a different role other than that set by the society and also discourage dowry, school drop out and violence on women. Karisunda has seen a lot of positive changes over the last few years which has made them stand out in performance amongst other GPs of the same Block. It is felt that a little more formal capacity building initiative by the Block officials and Zilla Parishad needs to be extended for this Gram Panchayat to make the experiment successful.

Table 5.10 The women members of Karisunda Gram-Panchayat

Name	Social group/ Community	Designation	Education
Syed Manowarjahan Begum	Mohammedan	Pradhan	HS
Kajak Majhi	SC	Upa Pradhan	Neo literate
Rita Chandra	OBC	Panchayat Samity member	School final
Molina Pal	General	Panchayat member	Class V
Chaya Ruidas	SC	Panchayat Samity member	Class IX
Hara Bagdi	SC	Panchayat member	Neo literate
Arati Mete	SC	Panchayat member	Class V
Umarani Majhi	SC	Panchayat member	Class IV
Kalpana Majhi	SC	Panchayat member	Neo literate
Krishna Bhattacharya	General	Panchayat member	HS
Chandana Majhi	SC	Panchayat member	V
Gauri Ruidas	SC	Panchayat member	Neo literate
Sabita Pandit	General	Panchayat Samity member	Class IX
Sayed Fazila Begum	Mohammedan	Nari Sishu Sanchalak	Class VIII
Nupur Nandi	General	Shikhya Sanchalak	MA, B ED
Kanchan Dey	General	Shilpo O Parikahtamo Sanchalak	BA
Aparna Mulick	General	Krishi O Tran Sanchalak	IX
Shikha Pal	General	Panchayat member	IV

Source: Office of the Block Development Officer, Indus

In the other seven villages that we surveyed except the village (Barogobindapur) in Karisunda G.P., women's participation in Panchayat bodies as well as in other community forums like water shed Management committee, Forest protection committee (Ban Surakha committee under joint forest management JFM), village Education committee (VEC), ICDS beneficiary committee, Gram Soloyana/Salishi Sabha etc., is either nil or negligible. Females interviewed in the villages of Kelai (Gangajalghati), Bisindia (Gangajalghati), Udaypur (Saltora) Komo (Ranibandh) and Udaypur (Indpur) do not even know anything, about the existence a committee like ICDS beneficiary committee. In Bhalukgaria (Chhatna) there are two women members in the ICDS beneficiary committee, but the members do not actively participate in the meeting. VEC is unknown to females of the villages of Kelai, Kamo Udaypur (Indpur) and Arjunpur, while in Udaypur (Saltora), Bhalukgaria and Bisinda, there are women members in VEC, but their participation is passive and ineffective. The villages of Udaypur, Barakuli and Fatepur (saltora) have recently been brought under the watershed management scheme (RSVY) and a watershed Management Committee has been formed. There is one woman member in this committee from Fatepur – Salmoni Tudu. But women interviewed from the group were not aware about it.

Soloyana/Salishi sabha is an internal meeting of the villages to resolve disputes related to land, family feuds and disputes over marriage, cattle etc. Women are not included or consulted during such meeting. Men see no role of women here and only if the matter concerns a woman, she is consulted and that too separately inside the house. Women are not allowed to sit with the men. In words of some women in our focus group discussion,

“amra o gulo korbo kakhon? Kath ante hobe, kato kaj, purush shashito samaj!” (when should we involve in all these matters? We have to bring firewoods and so many household work to do-we are in a patriarchic society!)

In rare cases, if women attend Gram Samsad meetings, they play the role of silent spectators. They say. “Panchayat a katha bolte sahas a kulaina, sasur bhasur thakle kathainei” (we don't have the forwardness to speak in Panchayat- and not at all if our father in law or brother in laws are present there in the same meeting.”

Among the eight villages surveyed Bansuraksha Committee (Forest Protection Committee-FPC) exists in Udaypur (Saltora) only. There is no female in the committee. Women have brought up the issue through their Self help Group but the forest department (FD) has not made any amendment.

The State Forest Report 2000 shows that in West Bengal, 75.20 percent of Non Timber Forest produce (NTFP) is gathered by women of forest villages. While NTFP gathering and its marketing constitutes the economic backbone of the system and women are principal users and gatherers of it, women's involvement in Joint Forest Management is insignificant (5.7 percent as against male participation of 94.30 percent). Realising this situation, West Bengal Forest Department made an effort to establish a unique management system of women FPCs in West Bengal. To this end, 17 all women FPCs had been established, though where forest coverage is more than one fifth of the total area. We set a snap-shot of two such all women FPCs in Bankura-district from a survey report by Ritajyoti Bandyopadhyay of Jadavpur University. In case study (2) we reproduce these two cases.

All women Forest Protection Committee at Brindabanpur- a case study

(Forest Range-Joypur, Forest Division Bishnupur P.S.C) and Tribanka (West) (Forest Range-Bishnupur, Forest Division-Bishnupur P.S.C)

Brindabanpur is a homogeneous village with 56 Scheduled Caste Households (HHs) containing 290 inhabitants. They are all landless. 35 out of 56 HHs are dependent on wage labour, 17 HHs are engaged in government/non government services while rest 4 HHs are engaged in business. The village does not have any primary school or health center. Recently, a Sishu Siksha Kendra (SSK) has been established

in Brindabanpur, which caters to the need of the mothers and children of the locality. Still the village lacks a motorable road and electricity. Literacy level is very low. Only two male members – Madan and Bikash Lohar can read and write in vernacular. The women interviewed can only sign their names.

Tribanka is a slightly developed village with a predominant Scheduled Caste population (SC 101 + general 18 = total 119) 2 HHs has large holdings, 3 have medium holdings, 44 HHs represent small farmers and 70 HHs can be designated as marginal farmers. Six HHs earn their livelihood by wage earning. The remaining HHs are involved in either service sector or in business. The village does have a primary school (though with negligible infrastructure) but lacks a health center or a good communication with Basudevpur. Five male members have education up to secondary level, while women have no education. Some of them can only sign their names.

In both the villages the male villagers initially formed some FPCs. But they failed to protect the forest cover. They insisted the Forest Department to dissolve their own committees and form new ones by incorporating women since women were traditional users of forest. A separate group interview with the male members of both the villages further reveals that they were less inclined to protect the forest since they, at that time, did not understand the economic magnitude of JFM. They failed to envisage the benefits that they could accrue from JFM in future. As a result, they 'left the place for women' so quietly. But, after JFM attained a certain stage of prosperity, the men folk came back in the Programme with much interest.

It was not easy for Mr. Swapan Banerjee (former Range officer, who implemented JFM in Joypur range) to 'persuade' women to take 'public responsibilities.' It was decided that they would go for patrolling on rotation basis but two forest guards would accompany them. In course of time they became confident enough to go for patrolling without the help of forest guards.

The women members of Brindabanpur FPC were given a kisan nursery to raise seedling and after selling them they earned Rs. 3, 000/- and opened an account in favour of FPC in the Bank. Different trainings were given to them from time to time. They started the protection in a group on roaster basis and successfully detected the cases. In 1988, one pond was excavated and pisciculture was started. In the very next year they released fish fingerlings and earned 3000/-. One community hall, one singwell Paddy thrasher were given to them from time to time as JFM support activities. By selling the rice gathered by women as 'musthy sanchaya' (collection of fistful rice from the daily routine of the family), they kept the sold money in a common account.

The women FPC members of the village were also benefited from the growth of micro credit system. The women accumulated a portion of their wage earnings from JFM activities in a bank account. Then they themselves use the money for warring it to members when they are in urgent need of it.

The same thing in a larger magnitude took place in Tribanka. The better functioning of FPC unit has resulted in substantial increase in additional income of the members, for instance, from the share of usufructs, collection and sell of different items of NTFP, pisciculture and above all expansion of irrigated agriculture. (Thus) JFM has returned the dignity of women head loaders. Before the introduction of JFM, the women collectors were considered to be offenders and quite often treated in a much-undignified manner. In words of Parul Lohar, 'before the introduction of JFM, we used to destroy the forests, now we protect them. Many of us had the experiences of eating burnt bread in police custody. Now we love our forests, because we have nurtured them. The foresters are our relatives.'

[Source: Sustainable Development and Gender: The Experience of Participatory Forest Management in West Bengal, India," Ritajyoti Bandyopadhyay, Jadavpur University.]

Along with this success story, however, there is also a fear of failure in near future. Although women initially gained a voice, they may fail to sustain it owing to their incapability to handle newly generated resources – they are deprived of getting primary preconditions of development i.e., health care, education, land etc. The men with 3 ‘R’s, may very soon capture the authority.

Thus it is clear that the smooth running of the processes of political empowerment and enhancing decision-making power of women are hindered by many hurdles. At the individual and family level, women face three difficulties – (1) financial dependence on their husbands or other family member (2) lack of education and lack of confidence – they cannot interact freely and effectively. [In the all-women Panchayat of karisunda GP we experienced that even the graduate and postgraduate members are not competent enough to discuss the issues like industrial, agricultural and infrastructural development within their own G.P. Thus not only formal education but also handholding is required for effective involvement]. (3) The family is yet to change its outlook towards women members as different decision-making bodies. It was expected that husbands or the other member in the family would be sharing household work with them. But this has not happened.

At the social and political levels, there are quite a few problems – (1) the meetings are often held at inconvenient hours and women members cannot attend due to their household responsibilities. (2) The environment within which they operate has such inherent problems of crime against women, which restrict their free movement. (3) Women are often divided on the basis of political belief, caste etc. They are yet to realize that they should get together on women’s issues forgetting their petty self-interest.

Self-help groups (SHGs) in different regions of Bankura district can play an important role in increasing women’s own capabilities, self confidence and thereby contribute

to women’s economic and political empowerment. In the next section (5.3) we analyse the performance of a number of SHGs in different regions of Bankura district.

5.2.3.8 Health issues :

Health is the basic need and the most precious possession, next perhaps only to life itself. Good health is particularly important to women, because lack of it affects them for a variety of reasons. As potential mother requiring care and attention women need specialized services related to the reproductive services. As mothers they become responsible for the health of their children and family. As workers outside and inside the house they often have to shoulder double burdens. Consequently they are overburdened, subject to poor working conditions and suffer undue overstrain and mental stress. They are more dependent on the Health system than men. However, women in India suffer from different health problems from the very beginning of their life. Girl children do not achieve their full weight and high potential on account of dietary deficiency. Several micro studies found that girl’s diet is inferior, both in quality and quantity to a boy’s diet. Girl children are breast-fed for shorter periods and receive less supplementary food than boys. Under-nourishment and poor health are making them more susceptible to diseases. Over 60 percent of female population in India suffers from anaemia.

The SIPRD Survey recorded the frequency of taking protein-contained food by women in seven blocks of Bankura district. Women were categorized into three classes – (i) Maximum protein intake group represented by the women taking protein-rich food articles in 3 days or more in a week, (2) minimum protein intake group which included women taking protein-rich food items in less than 3 days and (3) women not taking protein-rich food at all.

The table given by SIPRD is reproduced in table 5.11.

Table 5.11 Percentage distribution of women surveyed according to the level of protein intake

(All figures are in percentage)

Block	Percentage distribution of women according to the level of protein intake		
	Maximum	Minimum	Nil
Chhatna	44.98	47.49	7.53
Indpur	31.90	60.32	2.78
Gangajalghati	53.91	41.70	4.39
Ranibandh	45.28	47.89	6.83
Sonamukhi	55.52	43.16	1.32
Khatra	36.11	55.91	7.98
Saltora	6.47	74.12	19.41

Source: State Institute of Panchayat and Rural Development, 2003

In Bankura district, considerable percentages of women suffer from anaemia and tuberculosis. However we don't have exact data regarding percentage of women suffering from anaemia. Table (5.12) represents a block-wise report of Anaemic mother (P.W) and IFA

given for the year 2002-2003 to 2005-2006. It is seen that the number of reported cases of anaemic mother has decreased marginally (by .75 percent) between 2002-'03 and 2005-'06.

Table 5.12 Block-wise number of reported cases of anaemic mother (PW) and IFA given for the 2002-2003 to 2005-2006

Sl. No.	Name of Blocks	Year-wise number of reported cases of anaemic mother (PW) and IFA			
		2002-'03	2003-'04	2004-'05	2005-'06
1	Bankura-I	799	566	732	707
2	Bankura-II	760	895	996	777
3	Gangajalghati	1207	1131	861	1139
4	Barjora	2284	1291	1322	2053
5	Mejia	2103	832	925	802
6	Saltora	527	2120	2509	1468
7	Chhatna	1091	2734	2474	2054
8	Onda	689	1759	2073	2313
9	Indpur	563	1124	1166	1055
10	Khatra	295	455	621	751
11	Hirbandh	965	543	761	687
12	Ranibandh	1165	214	762	435
13	Raipur	411	898	983	901
14	Sarenga	1192	1105	1198	788
15	Simlapal	1708	480	608	529
16	Taldangra	285	1171	1264	990
17	Kotulpur	692	2173	2255	1316
18	Joypur	2492	631	1037	900
19	Radhanagar	961	544	488	321
20	Sonamukhi	423	631	891	732
21	Patrasayer	1343	1435	1517	997
22	Indus	1136	901	1108	1204
TOTAL		23091	23633	26551	22919

Source: Office of the Chief Medical Officer of Health, Bankura

Table-5.13 Year-wise number of patients of tuberculosis with social group/community-wise break-up

Unit	Year	General		SC		ST		Minority community	
		Male	Female	Male	Female	Male	Female	Male	Female
District Tuberculosis Center TU (DTC TU)	2004	135	63	142	72	35	11	20	12
	2005	133	50	160	68	31	16	12	8
	Total	268	113	302	140	66	27	32	20
Bishnupur TU	2004	144	38	155	49	98	30	38	12
	2005	141	45	177	45	98	33	30	19
	Total	285	83	332	94	196	63	68	31
Amarkanan TU	2004	138	72	179	43	49	18	0	0
	2005	100	52	158	54	39	36	0	0
	Total	238	124	337	97	88	54		
Sonamukhi TU	2004	111	45	262	98	41	14	64	20
	2005	87	30	235	92	38	11	53	23
	Total	198	75	497	190	79	25	117	43
Taldangra TU	2004	114	57	154	81	170	64	18	11
	2005	103	51	154	88	173	69	27	11
	Total	217	108	308	169	343	133	45	22
Raipur TU	2004	36	15	123	36	265	94	1	0
	2005	23	8	94	24	296	98	1	1
	Total	59	23	217	60	561	192	2	1
Khatra TU	2004	110	38	110	37	114	33	7	4
	2005	92	43	91	36	87	39	3	5
	Total	202	81	201	73	201	72	10	9
Chhatna TU	2004	59	23	162	59	192	64	9	3
	2005	74	40	150	72	185	70	2	1
	Total	133	63	312	131	377	134	11	4
District total	2004	847	351	1287	475	964	328	157	62
	2005	753	319	1219	479	947	372	128	68
District total for 2004 & 2005		1600	670	2506	954	1911	700	285	130

Source: Office of the Chief Medical Officer of Health, Bankura

Table 5.13 shows that the number of TB patients in all the social groups and community strata is higher for men compared to women. This may be due to the fact that percentage of TB affected patients brought under proper treatment is lower for women compared to men.

Number of general caste female TB patients under treatment in all the TUs decreased between 2004 and 2005 while the same increased marginally for SC, ST and minority community between 2004 and 2005.

In our own survey work for gender issues, women's health problems occupied the central position in FGD.

Majority of the women needed quite a bit of persuasion and prompting to get them talking about their health

problems. There was a sense of exasperation, as they themselves and the society at large did not give much importance to it. Women have to live with their problems and due to financial crisis the first priority was given to men and children's health treatment. The community accesses government sub centers for children's vaccination, ANC and family spacing services mainly. The private practitioners treat other health problems. There is very little faith of the government services. Distance from the BPHC is also a cause for seeking services from private practitioners. On an average it is seen that the sub centers were 2 – 3 Km from the villages. As reported by women, the outreach services by health are really poor in the areas

and ANMs and other health workers are hardly visible except for pulse polio Immunization. The community said that health workers do not hold regular health camps at the village, common ailments like aches, chronic indigestion & diarrhoea, white discharge, etc are not treated. In Bankura Sadar majority seek service of private practitioner spending large amounts of money.

The most common ailments that came up during discussion were diarrhoea, cough & cold, indigestion, back pain, fever, and TB. Worms, loose motions, amebiosis, indigestion and white discharge are so chronic that it is treated as a part of life and treatment is also not sought. Due to heavy workload back pain among middle-aged women was very common. In Ranibandh women also mentioned malaria and jaundice. Skin problems like rashes, boils, fungal infections, etc. were also common. Leprosy, as a health problem was mentioned only in kelia village of Gangajalghati. In Bhalukgoria, Chhatna they also mentioned epilepsy.

Institution deliveries are preferred for first time cases. With the subsequent deliveries there is less time available for transportation and the deliveries are mostly at home. There are trained birth attendants, but in most of the cases the birth attendants comes after the delivery is almost complete. The role of the birth attendants is to cut the umbilical cord and provide post delivery care to the mother and child. Institution delivery turns out be quite expensive as, they need to buy medicines from markets and the cost of travel is very high even though bed charges are free in hospital. For normal delivery the total cost incurred is almost Rs. 700-800/- including vehicle and medicine. In most of the cases villagers need to borrow money from neighbours or local moneylenders at the rate of 120 percent interest. In only one village (Udaypur), where local NGOs arranged group savings and lending facilities, the interest rate is relatively low (24 percent). As an alternative, they can conduct at home delivery, not only to save transportation cost but also to minimize the hazards of delivery while traveling. Therefore, unless any danger symptoms are identified, home deliveries are preferred to institution deliveries. Across Bankura there is a fear of episiotomy and the harsh behavior of the attendants at the government hospitals.

5.2.3.9 Age of marriage, dowry control over household resources and decision-making within the family :

In a still feudalistic framework of Indian society women became objects of pleasure and the practices of polygamy and child marriage continue unabated. Being married at early age they are deprived of proper education, proper health care and get accustomed to live according to others' will. According to census reports, the average age of marriage for males has increased from 20.2 during 1901-11 to 23.3 in 1981-91. For females, the comparable figures are 13.3 and 18.3.

For Bankura district we don't have any published data in this issue since marriages are not compulsorily registered. In the SIPRD survey, it was observed that in all the seven blocks selected, a considerable number of women get married before attaining the age of 18. The study found a positive correlation between mean age of marriage and literacy level. In our own survey work for Gender issues in Bankura district, the issue of age of marriage came to be an important focus of FGD.

The mean age of marriage amongst SC/ST communities of Gangajal Ghati, Saltora, Indpur, Ranibandh, Chhatna and Bankura Sadar was found to be 15 years. Amongst these the least (13) was found in Udaipur village, Saltora.

There are exceptions also. During the group discussions 2 Tribal girls were found around the age of 20- 21 years and were still single. They lived with their parents and brothers family. Girls who remain unmarried till late years have to bear with taunting and other verbal abuse from even family members like sister in law. To avoid remarks they have to contribute substantially in the household chores. Parents are not much perturbed over unmarried daughters in tribal families. The marriage proposal always has to come from the groom's family, there is no dowry system, on the contrary it is the groom's family who pays a nominal amount to the brides parents and also gives jewelery to the bride. The bride's parents have to provide utensils and bear the cost of feeding the guests. The tribal women are well aware about the legal age for marriage but they fear to refuse a proposal in case there are none in future. The women also said, "at a younger age girls are more attractive it is easier to find a groom", so marriages take place quite early.

The scheduled caste women that we met were mostly illiterate and the dowry system was prevalent amongst them. The Scheduled castes of kamo village Ranibandh were more influenced by the Tribal cultures and had no dowry system but those living in the vicinity of the general castes gave dowry during marriage. The paying of dowry system was found in Indus, Gangajalghati and Bankura II. Parents of daughters have to either take cash loans or mortgage whatever little land they have to pay for the dowry.

Amongst the general castes the mean age for marriage was 18. Bisinda, in Gangajalghati had a higher age for marriage and also a larger amount of dowry, ranging between Rs. 50,000/- to Rs. 4,00,000/-. In Arjunpur the dowry ranged between Rs.50,000/-to Rs. 1,50,000/- and the mean age for marriage was 17 years. The people are mostly landowners and also service holders in both the villages. Along with the dowry gold is also given to the daughters, which is usually passed down from mother to daughter. Homestead land is mostly sold or mortgaged to pay for the dowry. For the mortgaged land, usually the family has to cultivate on the land and pay back in terms of crops. As a result they continue to remain indebted over long periods.

The dowry system also has an unofficial influence on the control of resources by women. The amount of money with which the parents of a daughter are 'penalised' generally goes to the husband or the father-in-law of the bride. The head of the family controls the money that is paid as dowry, the women who brings it does not have any say/control over it. She is only left with a guilty feeling that for her sake her parents had to spend so much. The women cannot claim share of parental property, though she is aware about her legal right to it. As the parental family has already paid for dowry by selling land or mortgaging property the family pressurises women to sacrifice her share. As a result women are left with no resources and no decision making power. All the resources-financial and physical in the in-laws house are beyond women's control, especially for housewives who do not have any financial independence.

According to the SIPRD survey, more than 45 percent of the women in the sample population (of seven blocks) have their own earnings. However, on an average of these around half of them have their own saving. Mostly male members of the families take purchasing decision in respect of their families and control the family

expenses. Around 40 to 50 percent women can take birth control decisions of their own and around 50-60 percent women can move outside their residence for any purpose without taking permission from male members of their families.

5.2.3.10 Access and control over community resources/services :

Access to community resources and services like water sources, roads, railways and the transport facilities, community health services, education services etc builds the infrastructure for economic development. Poor infrastructure is one the major causes for women's inability to access community services. The infrastructural constraints are:

- 1) Physical distance from the service centers (health, education)
- 2) Bad condition of roads – lack of proper transport facilities
- 3) Shortage of safe drinking water as well inadequacy of water sources for other important daily uses.
- 4) Low teacher-student ratio in primary and secondary schools.
- 5) No electricity in the interior villages.
- 6) Lack of awareness about existing Government schemes.

The most serious problem of the majority of population in Bankura district is scarcity of water - drinking water as well as water for other uses. Most of the women in rural, semi urban and in even urban areas are hard hit by this infrastructural backwardness as, collection of water is an activity assigned for women no matter the high degree of hardship attached to it. Women in villages spend at least 2 hours and maximum 4-5 hours just to collect enough water for the family including the cattle. The number of tube wells against the total population of villages varies over a wide range. In our sample survey, we found komo Mouza (Ranibandh block) with only two tube wells serving 2350 population and another village Bisinda (Gangajalghati) with 12 tube wells for 2237 population. In table 5.14 we show the matrix on our major findings on drinking water in the villages visited by the Gender issue Group of DHDR Cell, Bankura. We came to know from FGD that the ponds are used for bathing and washing of clothes and utensils. During dry seasons the water becomes murky and unusable, but

there is no alternative. Diseases are bound to spread during dry seasons. Some said that small trenches are dug out, where water accumulates during monsoon; this water is used later, which is also muddy and full

of insects and moss. Using such water for bathing, cleaning utensils etc is largely responsible for the common ailments like diarrhoea and worms.

Table 5.14 Matrix on major findings on drinking water

Block	Village	Population	Drinking water source	Situation
Chhatna	Bhalukgoria	250-300	1 tubewell and 2 well	There is only 1 tube well for drinking water. During dry season the water level drops, so water has to be collected from the riverbed. The river is half kilometer from the village and women carrying two containers (one on the head & other on the waist) have to walk that distance 10 to 16 times in a day (up & down). They have to fetch water even during pregnancy; during the third trimester they carry water only on their heads. Considering the severe summers of Bankura this becomes a Herculean task.
Bankura II	Arjunpur	1500-2000	4-5 tubewell provided by the Panchayat and some in personal houses	Many families have their tube wells. The iron content of the water is very high in the drinking water. Drinking water is a problem. People prefer drinking well water.
Bankura Municipality	Shit para & Kethar Danga	9400	Municipal supply water	Water is collected from municipality supply. There are not enough connections, hence a large number of people collect water from the taps. Some families collect water for washing and bathing from the municipality supplies, others use the river for washing clothes, utensils and bathing. Water takes up a lot of time and energy.
Gangajal-ghati	Bisinda	2237	12 tubewell provided by the Panchayat and 9 in personal houses	There are 12 tube wells provided by the Government and around 9 houses have their own tube wells. However on the event of tube wells breaking down it is 1-2 months before those are repaired. Each para or hamlet has a tube well. In case the one in the scheduled caste mohalla stops functioning they have to wait till all the upper caste finish taking water. Untouchability still prevails, women hold on to it strictly. Men when out side their houses do not maintain the norms but when at home do not defy the norms.
Gangajal-ghati	Kelai	30-40 Household	1 tubewell	There is only 1 tube well for drinking water. During dry season the water level drops and there is acute scarcity, one of woman said “ the scarcity is so acute at times that if there is a fire we will have to stand and watch our child burn to death, since there is no water ”. A large part of time is spent on fetching water.
Indpur	Udaipur	194	1 tubewell	There is 1 tube well provided by the Government for drinking water. During peak summer the water level drops drastically.
Ranibandh	Lagapukur (Kamo Mouza)	785	1 tubewell and 2 wells	There is only 1 tube well for drinking water. During summer the water level falls so villagers have to drink water from the wells. Women have to fetch drinking water 3 – 4 times a day during summer, as they have to provide water for the cattle also. There are long queues at the tube well and women from one side of the village have to walk across to the other end, hence collection of drinking water is time taking.
Saltora	Udaipur	930	1 tubewell and 2 wells	There is only 1 tube well for drinking water. During summer the water level falls so villagers have to drink water from the wells. Women have to fetch drinking water 3-4 times a day during summer, as they have to provide water for the cattle also. There are long queues at the tube well hence collection of drinking water is time taking.

Source: Survey and focussed group discussion

Table 5.15 Percentage of population covered by supply of drinking water

Sl. No.	Blocks	Total population as per Census, 2001	Total population covered by supply of drinking water	Percentage of coverage	Rank within the district
1	Sonamukhi	142328	142328	100.00	1
2	Indus	152847	151831	99.34	2
3	Onda	220572	217636	98.67	3
4	Gangajalghati	162007	158957	98.12	4
5	Mejia	76123	74671	98.09	5
6	Taldangra	128747	126213	98.03	6
7	Joypur	141497	138589	97.94	7
8	Indpur	137825	134024	97.24	8
9	Saltora	121552	118182	97.23	9
10	Patrasayer	164060	159504	97.22	10
11	Ranibandh	104326	101391	97.19	11
12	Chhatna	169215	163978	96.91	12
13	Hirbandh	72502	70223	96.86	13
14	Kotulpur	167547	160044	95.52	14
15	Simlapal	127445	121379	95.24	15
16	Bankura-II	123415	117283	95.03	16
17	Bishnupur	138768	130956	94.37	17
18	Sarenga	95128	88146	92.66	18
19	Khatra	102569	94419	92.05	19
20	Barjora	179007	164205	91.73	20
21	Raipur	151293	137320	90.76	21
22	Bankura-I	95840	83536	87.16	22

Source: NRDMS, Bankura

‘Coverage’ is conceptualised by the standard of ‘one tube well with a maximum population of 250’. From the table we find that in Sonamukhi block there is cent percent coverage of population with drinking water facilities, whereas the lowest coverage is in Bankura-I (87.16 percent).

As far as the transportation facilities are concerned we found that the most commonly available transportation facility to carry patients is “Van Rickshaw” for nearby health points. Public transportation facilities are really weak in most of the areas. During emergency, villagers need to hire four wheelers, which cost around 200-400/- depending on distance. This huge cost of transportation is unbearable for the villagers and restricts villagers in availing institutional facilities unless it is very urgent.

In some of the villages, the connecting roads are mud tracts, which are broken and difficult to travel. This also restricts movement for seeking health, education, etc. services from distant places. In 3 of the villages, women

reported that they delivered their baby on the vehicle while approaching the nearby hospital.

Lack of awareness about existing Government schemes – Most of the villagers were totally unaware of the existing Government health facilities and schemes like “Janani Suraksha Yojna” etc and never availed those services.

The use of sanitary latrines is extremely poor in the majority of the places visited. Scarcity of water and lack of awareness seems to be the major problem for not using sanitary latrines. Most of the latrines prepared by the government are now used as storerooms or are used only during emergencies. The community is not convinced about the quality of the low cost latrines and there is a feeling that the pits will collapse or water may over flow causing more environmental pollution. The community also said that the quality of the pans is not good enough and cannot be cleaned. Very soon the pans become blackish with moss and slime. Many of them said that there is no

space for construction of toilets within the house. Women also feel a lack of privacy to use the toilets within the household.

Coverage of electricity in villages of different blocks is still partial, the extent of coverage varying among blocks.

Electricity coverage in villages of the seven blocks selected by SIPRD study and village coverage of electricity in the district are as shown below:

Block	Percentage of villages electrified
Sonamukhi	75.00%
Khatra	74.20%
Chhatna	58.91%
Saltora	57.32%
Indpur	56.00%
Ranibandh	51.48%
Gangajalghati	31.38%
District	67.70%

Among the seven villages surveyed by the Gender Group of DHDR Cell, Bankura, five villages have no access to electricity facility. These villages are Kelai (Gangajalghati), Udaipur (Saltora), Bhalukgaria (Chhatna), Lagapukur (Ranibandh) and Udaipur (Indpur). Of these villages, women in the FGD of

Udaypur (Indpur) expressed their feeling of high priority for electricity, as it is very difficult for their wards to study in the evening under kerosene lamp.

5.2.3.11 Work load of women :

Besides working as agricultural worker women are generally engaged in strenuous and hazardous work like Stone Crushing, Collection and selling of Firewood, Loading/Unloading brick, sand etc. along with their regular household work. All these work take full days since they go to distant places in search of livelihood (travel time 3-4 hours a day). They continue all these activities even during pregnancy, which leads to general and reproductive health complication for the women as reported during FGD.

Women who do not work out side contribute as labour for their own agricultural land. This involves a lot of heavy work. At home almost all women make “moori” or puffed rice and par boil paddy. Both these activities involve sitting by the fire for long stretches and doing other heavy work. Along with this all the women have to perform the regular household chores like cooking, washing, fetching water, caring the cattle, fetching firewood and of course attending the baby.

Table 5.16 gives the daily work profile of females as obtained through PRA in the villages visited.

Table 5.16 Daily work profile of female

	Time line	Household work profile of female
Udaypur	05:00 a.m. to 09:00 a.m.	Wake up, fresh up, clean house, fetch water, cooking, clean utensils, sweeping, prepare children for school, boil paddy, wash cloths, Maruli Deoa
	09:00 a.m. to 01:00 p.m.	Go to jungle for firewood or work in agricultural work (during agricultural season)
	01:00 p.m. to 03:00 p.m.	Cutting wood into pieces + sweeping floor + serving food to children, Feeding animals, fetching water
	03:00 p.m. to 06:00 p.m.	Go to nearest market (Tiluri-1½ km to sell firewood + buy vegetables etc.
	06:00-10.00 p.m.	Cooking, serving food, wash utensils, fetch water
Bhulukgaria	04:00 a.m. to 08:00 a.m.	Wake up, fresh up, clean house, sweeping, take tea and Muri, Bring water from river (1 km away)
	08:00 a.m. to 07:00 p.m.	Loading /Unloading Brick/Sand on Truck
	08:00 - 10:00 p.m.	Cooking, serving food, wash utensils, fetch water
Bisinda	04:00 a.m. to 06:00 a.m.	Clean house, sweeping, boil paddy
	06:00 a.m. to 10:00 p.m.	Cooking, serving food, wash utensils, fetch water
	10:00 a.m. to 6:00 p.m.	Bring firewood from jungle/work in paddy field
	6.p.m. to 10. p.m.	Household work
Kamo	04:00 a.m. to 09:00 a.m.	Sweeping cleaning house, clean utensils, Maruli deoa etc.
	09:00 a.m. to 3:00 p.m.	Go to jungle, collect Shal leaf, firewood
	3:00 a.m. to 10:00 p.m.	Cooking, serving food, boil paddy, make leaf plate, sweeping, bring water etc.

Source: Survey and focused group discussion

Even during pregnancy women continue all the household and paid work up to 9 months of pregnancy. Within General caste female the situation is different. In Arjunpur, women reported that during pregnancy their husband and family members helped them doing the heavy work like fetch water from tube well, washing cloths etc.

In tribal community, the major contribution in income comes from women. They are engaged in both paid and non-paid (household work) activities. Though men are engaged in paid work, during dry season, when income is uncertain, they pass their leisure by sitting idle or chatting. They do not share the household work with women unless there is any emergency (when women are bedridden).

There is inter-district migration in search livelihood. In most of the cases total family is migrated during harvesting season. The most preferred choice for migration is Burdwan. It was reported by women that in Burdwan, the wage rate is relatively high and the landowner also provides shelter and utensils for staying there and work is available throughout the year since paddy cultivation takes place more than once. So migration out is profitable for them than staying in Bankura.

Table 5.17 gives an idea regarding the hardship women face in different backward Mouzas of Bankura district to collect fire source.

Table 5.17 Distance (in Km.) covered by women in backward mouzas of Bankura district (Block-wise) for collection of fire source

Block	Number of villages where women collect firewood by traveling				
	Less than 1 Km.	Above 1 Km. to 5 Km.	Above 5 Km. to 10 Km.	More than 10 Km.	Total
Bankura-I	6	19	2		27
Bankura-II	6	12	1		19
Chhatna	19	11			30
Mejia	13	12	5	1	31
Indpur	8	19			27
Khatra	1	20	4	1	26
Ranibandh	28	24	1		53
Simlapal	18	22	1		41
Sarenga	4	3	1	9	17
Kotulpur	3	1		3	7
Sonamukhi	24	24	2		50
Patrasayer	24	20	7	3	54

Source: Backward mouza survey conducted by the office of the District Magistrate, Bankura

In Ranibandh women of 28 villages collect firewood from nearby forest, whereas, women of other 24 villages collect fire source by walking upto 5 kms. per trip. In Sonamukhi and Patrasayer women from 24 and 20 (respectively) villages collect fire source by walking the

same distance. For the table, we come to know that in Mejia, Khatra, Sarenga, Kotulpur and Patrasayer, women of some villages have to bear the responsibility of collecting firewood even from a place at a distance more than 10 kms.

Table 5.18 Important interventions needed for improving the lives of the women

Village	Block	Immediate requirement
Kelai	Gangajalghati	'Water for drinking and other uses; 'Alternative livelihood: excavation of ponds; this would create livelihood opportunities as well as minimize water scarcity'
Bisinda	Gangajalghati	'Provision for another pond and a bathing 'ghat' for women'
Udaypur	Saltora	'Enhance women's education: This would involve alternative livelihood opportunities for the family so that children can be less involved in economic activities; higher teacher-student ratio for quality education: "teachers are busy with the Mid-day-meal"; 'Availability of water: less disease, less time spent on fetching water, more scope for growing vegetable & farming.'
Bhalukgaria, Chhatna	Chhatna	'Enhance women's opportunity to participate in decision-making bodies and to have access to information', 'availability of drinking water; less disease, less time spent on fetching drinking water'; 'improved irrigation facilities' – excavation of ponds – improvement of livelihood opportunities: this will leave more time and money to invest in other activities within the village. Mother won't have to stay out of home for the whole day and will be able to look after their children.
Lagapukur	Ranibandh	'Availability of water – less disease, less time spent on fetching drinking water, more scope for growing vegetable & farming, more time and money to invest in other activities.'
Udaipur	Indpur	'Provision of another pond, drinking water, roads, AWC and schools, Electricity, irrigation canal.'
Shit Para	Bankura Municipality	"Improve the availability of water, sanitation, Prevent alcoholism (Women had tried to stop the opening of a liquor shop in the locality, but the shop owner set it up with the support of the administration), cleaning and excavation of the ponds in the locality"

Source: - Survey and focussed group discussion

5.2.3.12 Violence against women :

Violence against women refers to any act of gender based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether accruing in public or private life.

Women become more and more easy preys of molestation and rape. Incidents of child-rape are regular features of newspapers. The number of sex related crimes are increasing day by day. Various national and international agencies present women's body as a piece of titillating object despite the Indecent Representation of Women Act. Moreover, there are constant evidences of violence against women in their day to day life - which may not be physical torture

always; it may be mental torture in different forms and these types of violence, although known to everybody, is difficult to be recorded due to suppression and misrepresentation of facts.

For Bankura district, the only data we could avail of in this regard are the reported cases in different police stations under Bankura Police (Table 5.19).

From Table 5.19, it is found that the number of reported cases of violence against women increased by 6.06 percent between 2000 and 2001, decreased by 5.24 percent between 2001 and 2002, again increased by 25.19 percent, 18.05 percent and 3.83 percent during the next three consecutive years. Thus during six years 2000 and 2005, the number of reported cases of violence against women increased by 64.65 percent.

Table 5.19 Number of reported cases of violence against women

Police Station	2000	2001	2002	2003	2004	2005
Bankura PS	50	39	43	32	50	65
Onda PS	10	11	23	24	28	14
Taldangra PS	10	8	9	11	9	10
Gangajal Ghati PS	13	11	9	11	20	7
Barjora PS	5	11	6	7	22	9
Mejia PS	3	9	4	10	11	14
Saltora PS	7	7	9	7	6	3
Chhatna PS	11	10	9	15	15	11
Beliatore PS	-	-	4	2	6	4
Khatra PS	16	21	20	16	18	27
Ranibandh PS	6	9	5	8	5	13
Barikul PS	-	-	-	-	-	4
Raipur PS	11	4	6	17	15	18
Indpur PS	6	11	6	11	11	12
Simlapal PS	6	4	4	4	10	9
Sarenga PS	4	1	3	5	7	12
Bishnupur PS	10	9	5	15	20	14
Joypur PS	5	8	8	13	10	12
Kotulpur PS	7	10	8	8	12	21
Sonamukhi PS	9	6	9	18	13	20
Patrasayer PS	4	8	3	7	14	16
Indus PS	5	3	6	22	12	9
Total	198	210	199	266	314	326

Source: Office of the Superintendent of Police, Bankura

In our FGD, when we enquired of domestic violence against women, the females in the groups initially hesitated, but finally reported that it is a common practice of some husbands in 'drunk condition' to assault their wives physically for nothing or for trifle household matters of dispute. There is sometimes dowry

related violence also. In Arjunpur, we met a middle aged woman whose daughter was tortured to death in her in-laws house due to her inability to fulfill her husband's ever-increasing demand for money from her parental house.

"Amar meye ke biye diye chilam, swamir atyachar-e mara jaye", this was the narration of a middle-aged lady while discussing the dowry system and its impact on the lives of women. Kalyani is a widow. With 2 daughters and 1 son, Kalyani was finding it difficult to run the family. All 3 children were studying and as they reached the higher classes expenses on education was soaring. She said, "gramer lok bole meye baro hoyechye biye dilo na" and so she managed to get the daughter married at the age of 17 with a dowry of Rs. 25000/- and some jewelery. A few days later they asked for more and more money and finally tortured the girl to death. Kalyani's son is a graduate and jobless. She has got him married. Her daughter in law also had to pay a dowry, otherwise how would she pay the dowry for her younger daughter's marriage? 'I married off my daughter, she died from torture her husband'. 'Village people were telling that you are not marrying off your grown-up girl'.

5.2.3.13 Influence of social groups and communities on women :

Majority of the places that were visited had a mix of both scheduled caste and scheduled tribe or scheduled caste and general caste. There were some Muslim women only in Bankura municipality. At every village women preferred sitting in-groups corresponding to their caste. Initially a conscious effort was made to make them sit together, but gradually it was found that the higher and richer castes were dominating the discussion and their problems also differed to some extent.

In Kelia village of Gangajalghati it was found that, even the scheduled castes and scheduled tribes were comfortable sitting in separate groups even though they were living in the same hamlet. Every thing about their regular lives starting from livelihood, land ownership, education, health seeking behavior, work load, etc, all differed. The services available to them were common like schools, health centers, hand pumps, etc. but there was a subtle rule about who would use it first. In certain villages where the schedule castes and general castes lived together the general caste had the right to use the hand pump first. Women did not speak about it but it came up while discussion. We very strongly felt that the scheduled caste, especially Bauri's, who are actually a large percentage of the society in Bankura district, are isolated. Though they have the right to all services

provided by the Government, they do not access them. They are the poorest of the poor. Service providers like AWW and ANM say that even when contacted they do not comply. Their unhygienic life styles and poor personal hygiene also becomes an underlying reason for AWW avoiding home visits and maintaining poor interpersonal communication. Bauri's do not access the Panchayat as they feel intimidated and ignored by the people in power. Many Bauri families do not have BPL cards or Annapurna Antardaya cards inspite of being the poorest in the community. Women belonging to these families are subject to extensive psychological and physical pressure. Violence is also an integral part of their day-to-day lives. Bauris are mostly land less, working as daily wage labourers. Percentage of illiteracy is highest amongst them. Their extreme poverty, poor health conditions, lack of awareness about rights and poor living conditions are some of the important factors behind their inability to join the main stream. Perhaps it is not always the "untouchability" factor that isolates them but it is the issue of 'haves and have nots' that separates them from others in public places like schools, health centers, markets, etc.

In the urban slums economic status is more or less same irrespective of caste creed and religion. The struggle for survival is most crucial so there is very little social discrimination.

Some observation on Kethardanga, a muslim slum

Kethardanga is predominantly a Mohammedan slum in Bankura municipality. The residents have been living here since quite some time and marriages take place within the community. The population density is very high and living conditions are extremely poor and unhygienic. We spoke to approximately 35 women of different ages. It was quite surprisingly found that almost all women could read and write Urdu but had no knowledge of Bengali/Hindi. Girls are not encouraged to go to school but taught Urdu in the local Mosque. There was a madrasa in the locality and also a girl's school that had classes only up to the eight. As for primary schools the women complained that the school did not admit their children. We found that the number of schools were not enough to accommodate the large number of children. As a result the teachers adopted an elimination process by which a child with absolutely no knowledge of the 3R was discouraged to come to school. It was also found that due to the lack of parental guidance the children did not maintain regularity in attendance and performed very poorly. As a result majority of the children did not attend school.

The family size was rather large with a minimum of 7-8 children in each family. The deliveries were often at home and conducted by untrained persons. Multiple marriage, violence on women and lack of mobility among women has made them extremely vulnerable.

The major problems that women faced here are their lack of decision making power, easy divorce system and lack of income. Among the other day to day issues, safe drinking water and sanitation are the major problems.

Most of the men work as daily wage labours and are often jobless. Alcoholism and violence on women are very common. Women stay at home. They are eager to take up different income generation programmes which they feel will make them self-reliant and enhance their self-esteem.

In general women's status in the family do not differ much from the various studies as far as decision making, education, control over household resources and mobility are concerned.

5.3. Self-help groups (SHGs) and empowerment of women in Bankura :

The importance of self-help group for empowering women gained focus of attention in 1987 with the expansion of 'Development of women and children in rural Areas' (DWCRA), as a sub-scheme of IRDP. The main objective of the scheme was to help and promote self-employment among rural women below poverty line by providing training in vocations through formation of groups of 15-20 women. Along with the promotion of economic and social self-reliance of women, there would also be provision for care of the children of the working women by providing an improved environment care and food.

Across India, the scheme is more or less successful to enable BPL women to cross the poverty line. This has encouraged formation of self-help groups on an expanded scale covering different other categories of rural women in addition to BPL category. Initiation in this line has been taken by individuals, groups, NGOs and also by government machineries. In the year 2000-2001, West Bengal Women Development undertaking and the Department of women and child Development and social welfare took an attempt to empower (rural) women through self-help group in the connotation of Swayamsidha. Swayamsidha was announced as an integrated programme with a vision to develop empowered women who will: (i) demand their right from

family, community and government, (ii) have increased access to and control over material, social and political resources, (iii) have enhanced awareness and improved skills and (iv) be able to raise issues of common concern through mobilization and networking. In Bankura district all blocks were covered by the Swayamsidha scheme.

5.3.1. Studies on SHGs in Bankura :

The SIPRD Survey (2003) focused on the present performance and future scope of self-help groups (SHGs) in seven blocks of Bankura district. The District Programme Officer (DPO), ICDS, Bankura conducted a survey of Sayamsidha groups across Bankura district in 2005. With the help of these two survey reports and our own survey work, we may try to analyse the role of SHGs in Bankura district.

5.3.2 Activities taken up by SHGs :

The survey administered by DPO, ICDS covered twenty-two blocks of Bankura district. Although there were certain gaps in compilation of answers of the queries of the survey questionnaire, we can gather some important information regarding the performance of the self-help group (SHGs) in Bankura district for the period 1997-2005.

Table 5.20 show that a total of 7421 SHGs (including SGSY groups) have been formed in the twenty-two blocks of Bankura district upto the end of the financial year 2004-2005. Among these groups, seventy were formed between 1997-2000 and the rest were established between 2001-2005. All these SHGs, after being formed, open a bank account on behalf of the group, where each group member deposits equally and regularly the sum decided by the group.

Table 5.20 Percentage of rural households covered under self-help groups upto 2004-2005

Name of the Block	Number of self-help groups (SHG)	Percentage of coverage under SHG with respect to total number of households in the Block
Bankura-I	445	2.5
Bankura-II	308	1.3
Chhanta	594	1.8
Saltora	126	0.58
Mejia	276	2.0
Gangajalghati	195	0.65
Barjora	143	0.41
Onda	388	0.95
Indpur	370	1.50
Khatra	501	2.50
Hirbandh	162	1.10
Ranibandh	630	2.90
Simlapal	468	1.90
Raipur	477	1.60
Sarenga	665	3.60
Bishnupur	211	0.80
Joypur	205	0.74
Kotulpur	142	0.44
Sonamukhi	474	1.70
Indus	215	0.71
Total	7421	1.32

Source: District Rural Development Cell, Bankura Zilla Parishad

From the savings the groups perform the activities like (1) Credit to members (against the bank deposits the groups may avail of bank loans for different purposes) (2) Initiation of income generating activities in agricultural, manufacturing and trading sector and (3) Upgrading the quality of the existing roads, schools, ponds, grounds, buildings etc. (4) Any other loan to tide over any family crisis.

For example, the group with highest savings in the district, Banagram Swayambar Mahila Group) G.P.-Andharthole, Block-Bankura-I with savings of Rs 2,41,641 is reported to take up income generating activities like goat rearing, cattle rearing, duckery, cattle trading, 'bhachati' (making rice by parboiling paddy in exchange of some payment either in kind or in cash) cooking Mid-day-meal, grocery and vegetable cultivation. In addition to rendering financial autonomy to members through these activities, the group has also contributed to improve the condition of village infrastructure. The members are involved in various programmes to improve the health conditions

of women and children. The group has made a 'grain gola' and a tube well with its own initiative.

Other SHGs in Bankura-I block are also reported to take part in similar economic activities, e.g., vegetable cultivation, fishery, cooking mid-day-meal, making brooms, goat and cattle rearing, poultry, piggery, making paper packets, tailoring, trading in grocery in stationary shops, arranging for school-van transport services, carpentry, etc. As a part of social involvement, the groups help AWWs to look after and care the children, settling family disputes, organizing activities for improvement of women's and children's health care, formation of 'grain gola', etc. The Bhatari Malpara Mahila group has been reported to take successful action against alcohol producing centre ('Mad Bhata').

In Ranibandh block the list of activities include selling babui grass, goat rearing, cattle rearing, fish trading, muri-trading, making muri, 'bhachati, sewing of sal leaves, kendu leaves collection, etc. some of the groups have taken up initiation in excavation of ponds (e.g.,

Deuli self help women Group consisting of 15 members, all in APL and ST category, GP-Rajakata).

In Gangajalghati block, as the ICDS survey reported, different SHGs have taken up activities like piggery, poultry, goat rearing, bael mala (flower garland) making, 'bhachati', grinding spices, paper packet making, frying and selling of 'batato bara' 'chap' (snacks) etc. making and selling of tools for fish catching, paddy trading, muri-making, dairy business, tailoring wool knitting etc.

Similar activities in Hirbandh include groupwise vegetable cultivation and fishery, agricultural activities with application of fertilisers, etc.

In Kotulpur block, the Kanakabati Kalimata self help Group (Laugram GP, member-16: SC, 10 and general caste 6) is reported to trade products of Hindustan Lever Co.

Self help groups in Indpur, operate on activities like cattle rearing, piggery, goat rearing, spices grinding, duckery, poultry, 'bhachati business', tailoring etc. The Puara IMK Group of Bheduasole GP has been running a telephone booth under group initiation.

The groups also work for health caring of women and children improvement of water supply condition, protection of housewives from domestic violence and prohibition of use and production of alcohol.

Installation of smokeless chulla by the members of self-help groups



5.2 Training on installation of smokeless chulla going on

Due to dearth of trained maker of smokeless chulla, the installation and use of smokeless chulla was almost nil in Bankura-I block. In order to overcome this short-comings and, at the same time, to empower poor rural women folk, a four day training session for fifteen number of self-help groups (SHG) from all the six Gram-Panchayats of the block was organised at block campus. These trained women started installation of smokeless chulla at backward Jemradhi village so far installed in about twenty-eight households. The installation of smokeless chulla at rural households has reduced health hazards of housewives and has also reduced the cost of fuel.

Stone grafting of mango saplings by the members of self-help groups



5.3 Stone grafting of mango saplings by SHG women

Training was imparted to six SHGs of Sunukpahari, one of the backward mouzas of Bankura-I block for converting mango seedlings into grafted plants.

The cost of raising one such grafted sapling is almost Rs. 3/- to Rs. 4/-, while the sale price of one grafted sapling will be Rs. 22/- to Rs. 25/-. Hence successful implementation of the scheme will open up new avenue of earning for poor families and boost up horticulture in Bankura-I block. This is a new economic activity for the SHGs.

In Sonamukhi block, along with the common income generating activities, the female groups are also interested in Paper making, embroidery work etc.

The SHGs of Mejia block, in addition to the traditional activities like muri making, goat rearing, duckery, vegetable cultivation etc, women in groups try to make

soaps (Mahamaya Group, established Feb, 2004) Kustore GP, members 15 : BPL-8, APL-7, SC-14, ST-1), make dishes from sal leaves, wool knitting with machine tailoring, making 'badi papad', and making incense sticks, trading 'chhatu' (ground gram & wheat), etc.

Table 5.21 Type of Activities to be undertaken through SHGs

5

Traditional Activities	Non-traditional activities
(i) Agricultural activities (as labourer or as cultivators)	(i) Tailoring
(ii) Working in brick fields	(ii) Wool knitting
(iii) Working in stone crushing units	(iii) Tasar cultivation
(iv) Working in tiles manufacturing units	(iv) Plate dish, etc. making from sal leaves
(v) Working in construction units	(v) Medicinal plants cultivation
(vi) Vegetable cultivation	(vi) Mahua seed collection and extraction of oil from mahua
(vii) Vegetable vending	(vii) Pisciculture
(viii) Rice processing	(viii) Food processing from tomato, lemon, mango (preparation sauce, of squash, jelly, pickles etc.)
(ix) Muri-Chira making	(ix) Mushroom cultivation
(x) Collection of fuel wood, kendu leaves and sal leaves	(x) Handicrafts from a babui rope
(xi) Beedi making	(xi) Spice grinding
(xii) Babui rope making	(xii) Handloom product diversification
(xiii) Bael-mala making	(xiii) Preparation of Bael dust as purgative
(xiv) Live stock rearing	(xiv) Embroidery
(xv) Paper packet ('thonga') making	(xv) Incense stick making
(xvi) Basket etc. making from bamboos	(xvi) Floriculture
(xvii) Talai making (from date palm leaves)	(xvii) Bamboo handicrafts
(xviii) Badi making	(xviii) Brass metal works

Source: District Rural Development Cell, Bankura Zilla Parishad

In our own survey work, we reported four self-help groups in the village of Bhalukgaria (GP Chinabari, block-Chhatna). Two of these groups have taken loans from the Bank. They have set up a pump near the river and grown wheat, grass (for cattle) and saplings of Arjun trees. These saplings have been sold to the village. Within two years the trees will be ready for sericulture. The women have bought goats with their earnings and plan to sell goat meat and build poultries. We found that the women had become quite active through these SHGs and had developed alternative livelihoods and seemed quite vocal and confident.

In the report of SIPRD survey, activities taken up or activities that women may undertake are classified into

broad categories, viz. traditional and non-traditional activities, Non traditional activities are those which are not frequently undertaken by women at present but have the potentialities on the basis of available local resources.

Through all these activities SHGs of women play a four-fold role across the district: (1) increased financial autonomy of women which has high degree of correlation with decision making power within the family (2) cultivation of a feeling of togetherness among women of a particular locality; they start to work together, and think together, to make their own social development (3) collective solution of social problems (4) upgrading the quality of the existing community services and infrastructural facilities.

Women empowerment – a case study of Indpur

Swayamsiddha groups of ICDS in Bankura are involved in construction of 20 Anganwadi Centers under RSVY project. The members are arranging for mason, procuring building materials from the market, assisting during



5.4 A signal of self- esteem with proud of ownership of the group members

construction to earn their wage and supervise the implementation to ensure the quality of work. District RSVY Cell is supporting them with facilitation from CARE. Savitri Swayam Siddha Group of Choukighata village, Indpur formed three years back and graded, is one of the 20 such groups that took up the challenge in construction work. Now the center is almost in the final



5.5 Selection of building materials where quality makes a difference

stage. Site was selected by the group and got the approval from the Panchayat and ICDS office after negotiation. The 12-member team distributed the work; two of them were responsible for purchase of “good” quality bricks, two were responsible for procuring cement and iron rods etc. The brick group traveled 40 km to search the best quality brick are available in Bankura. They brought 5 samples, soaked them in water for two days and went to the Block Sub Assistant Engineer asking which variety should be used for the center construction. The members decided to buy the best. They have bought best quality cement and iron rods and therefore zeroed down to TATA product. They went to the cement dealer, who initially did not take them seriously, but the women could eventually bargain with the dealer a discount saying “ we will pay in cash on the day of purchase and hence you should give us a discount”. Market will never benefit the poor, but poor can develop capacities to negotiate with the market as has been done here.

The foundation has been so strong, that a three-storied building can be supported. But the women’s views are; within the approved budget such strong foundation has been possible. The members of the groups are aware that the village children will go to these centers and so quality cannot be compromised. The estimated cost per AWC is Rs. 200,000. 15 percent of the total cost is wage component where women are saving Rs 32 per day out of their daily wage of Rs.68.

The money from the district directly reaches the group through a demand draft, thereby reducing the “ hidden cost” in the transaction.

A number of visitors are making visit to the center to discuss with the groups members. In the initial days the members were shaky and used to fumble in front of the outsiders. Now they can face the visitors and interact boldly without any hesitation. [Source: - CARE India]

5.3.3 SHG Coverage among women in different blocks of Bankura district :

It is, however, disappointing to note that the SHG coverage is very low across the district notwithstanding the enough potentiality of Swayamsidha and other self-

help groups. In fact, not all the existing SHGs are successful in making a change in the way of life among women. Root cause of this seems to be the lack of realization of the basic importance of the groups. In most of the cases, where group members are

interviewed with the question that why should they join a group, the answer is in favour of financial security of the family rather than overall social empowerment of women. As is evident from Table 5.20, only 1.32% of total household in twenty-two blocks formed SHGs till 2005. Among the blocks, the highest coverage is experienced in Sarenga, where 3.6% of the households have been organised into different SHGs.

In the SIPRD Survey, women of the sample families

were requested to respond on their membership in SHGs. Their responses are recorded in table 5.22. Here SHG coverage (in percent) refers to the number of women per hundred who have become member of any SHG and so far as quantization of positive response of head of families (in percent) is concerned, it means the number of head of families per hundred who have stated that SHG movement is beneficial for upliftment of economic status of their families.

Table 5.22 SHG coverage and response from head of families

Block	SHG coverage (in percent) women	Positive response of head of families (in percent)
Chhatna	7.20	80.12
Indpur	5.31	83.04
Gangajalghati	3.29	77.16
Ranibandh	24.43	93.66
Sonamukhi	6.73	69.75
Khatra	12.16	79.53
Saltora	3.63	71.18

Source : State Institute of Panchayats and Rural Development, West Bengal

From the table 5.22 it is clear that the coverage of sample women (in the SIPRD Survey) in the existing SHGs (2003) was very less in 6 blocks out of 7 blocks. "This indicates that the net work of SHGs is not so strong in the district in spite of positive response of the head of the families regarding their women joining SHG for economic augmentation of the families" (SIPRD Survey for Ranibandh, p.12). Participation of women in SHGs has a positive relationship with support from the head of the families (in general, male member).

5.3.4 Conclusions :

Formation and expansion of activities of SHGs can play a revolutionary role in accelerating the process of women's empowerment. In Bankura district however the network of SHGs is yet to tap this high potential. On the one hand, participation coverage of rural women is very low and on the other, most of the groups, though successful in initiating economic activities, have not yet been able to bring about any remarkable change in the overall status of women in the society.

The following lines of development can help to change the situation:

- (i) Persuading women to join groups through different awareness programmes conducted by different government agencies of development and the non-government organizations (NGOs).
- (ii) Removing infrastructural bottlenecks so as to enable the SHGs to take up more remunerative non-traditional activities.
- (iii) Specified training for non-traditional activities
- (iv) Expansion of market for products made by the groups beyond the local hats/markets.
- (v) Emphasising upon group activities, which will develop feeling of togetherness and responsibility towards society, in addition to the narrower interest of enhanced family income.
- (vi) Improving educational status of women in a true sense to enable them to take up a more liberated and dynamic way of life through consolidated efforts in Groups.

5.4 Status of women in Bankura : a summary of observations and proposals for improving the status

5.4.1 Status of women in Bankura district: a brief review :

- (i) Sex ratio in Bankura district, according to 2001 census is 953, which is higher than the state level as well as national level sex ratios (934 and 933 respectively). Sex ratio, separated for different caste categories show that in the district of Bankura the sex ratios for SC and ST population (966 and 984 respectively) are higher than the sex ratio for general caste population (937). This reflects higher gender discrimination among general caste and a comparably better approach towards women among scheduled tribe population.
- (ii) General fertility rate in Bankura district is higher than that in West Bengal. There exists a close relationship between family planning practices and female literacy.
- (iii) According to 2001 census, overall literacy as well female literacy in Bankura district are lower than the state and national levels. Female literacy in Bankura district (2001) is 49.4 percent as against male literacy of 63.4 percent. Girls' enrolment per thousand boys in the primary and upper primary sections is 937 in Bankura district. Moreover, dropouts among girls increase with higher levels of classes. There exists a negative relationship between female age of marriage and school dropouts for girls.
- (iv) Female work participation rate, according to 2001 census, is as low as 32.04 percent in Bankura. This is, however, higher than the state level and national level figures. Bankura is a predominantly rural economy, with poor standard of living, where women have to work mostly in agricultural fields as agricultural labourers in order to supplement family income. Women's engagement in the tertiary sector is minimum and in the secondary sector, they participate only in traditional and less-remunerative activities.
- (v) Up to December 2005, women's share in the redistributed land has been very low. Single women Patta as a percent of total Patta up to 2005 was 5.61 as against men's percentage share of 79.80.
- (vi) Reservation of seats for women in Panchayat Bodies in Bankura was 39.44 percent in 2001. Beyond this participation women's involvement in different community based organization in Bankura appears to be nominal. Even when they participate as members of FPC, VEC, ICDS Beneficiary committee, etc, in most of the cases their participation is passive and ineffective. In fact, Women's political empowerment is unsatisfactory due to their lack of financial autonomy, traditional outlook of the family and society towards women's right and efficiency, burden of household work and low level of education in general.
- (vii) Women's diet, in general, is reported to be inferior compared to male members in the family. They suffer from protein deficiency and malnutrition. A considerably large number of women in Bankura district suffer from anaemia and tuberculosis. Most of the women in the rural area are deprived of antenatal care. They have to carry on their heavier part of household activities even during pregnancy. They often have to opt for home delivery rather than institutional delivery mainly due to hurdles of transportation.
- (viii) Although the data for exact average age of marriage for women in Bankura district is not available, different survey reports suggest that average age of marriage for women in Bankura lies between 15-18 and it is lower than national average. Under the existing system of early marriage and dowry, women have less education, less command over household resources and properties and minimum decision-making power within the family.
- (ix) Women in Bankura are worst affected by bottlenecks in rural infrastructure: insufficient water sources, poor health services network, lack of electricity in the interior villages, miserable condition of most of the village roads and tracks, lack of proper transport facilities. Lack of proper sanitation, lack of awareness and poor access to the existing Government schemes for women's welfare worsen their situation.
- (x) Women in most of the village have to bear the responsibility of firewood collection, either from a nearby forest or from a distant one, by walking

Any favourable change in women's status must be initiated from the family, the basic social unit. It is the family, which recognises the virtuous role of women: women's traditional role of rearing of children, care for home, husband and family is associated with some important moral virtues, such as altruistic concern, responsiveness to the needs of others and a willingness to sacrifice one's own interest for those of others. Thus, love and care do exist in families. On the other hand, it is also true that family has been a major oppression of women. Domestic violence, child sexual abuse, under-nutrition of girls, unequal health care, unequal educational opportunities etc, take root within the family. In many instances the damage women suffer in the family takes a particular form: the women is treated not as an end in herself, but as an adjunct or instrument of the needs of others, as a mere reproducer, cook, cleaner, sexual outlet, caretaker, rather than as a source of energy and worth in her own right. It is this attitude towards women, which must be changed to start the process of gender mainstreaming.

Change in this attitude will enable women to have better access to education and to develop their own knowledge base, which in turn will help to develop self-esteem among women, so that they themselves, with their very existence, can foster changes within the family.

However, women live under patriarchy, it would not be possible for them alone to change things with their own culture and education. Men always hold higher positions of power and decision making within the family, in economic, political spheres. This necessitates men's commitment to the process of women's empowerment. This, however, may not be automatic and spontaneous-involvement from outside will be required. Male awareness regarding the importance of gender mainstreaming should be generated in the short run through different awareness programmes of government agencies and NGOs. In the long run, the virtue of respect for women may be cultivated from the very beginning through the formal education system. In fact, the role of men in stopping gender-based violence and gender inequality has become an important aspect in the international and national movements to end violence against women. It has been realized that it is crucial to involve men in establishment of gender equality and in combating violence against women.

Thus, it is very important to activate and involve men through different awareness programmes in Bankura district so as to stake up personal commitments as follows:

- "Accept that women are equal and reflect equality

of men and women through our behaviour and attitudes.

- Re-educate our sons and daughters that men and women are equal.
- Advocate in our religious groups, youth groups and men's groups that violence against women is a crime that must be eliminated.
- Be actively involved and supportive of all Government and NGO programmes that promote equality among men and women.
- Oppose the system of dowry at any cost."

If social campaigns can effectively change men's perception towards women, men's co-operation will be generated in the spheres of reproductive health, rearing of children and sharing of household activities. Helping 'wives' in domestic activities by 'husbands' will not be any more ridiculed as an inferior job for men.

As we have observed, dowry is a deep-rooted social malice in Bankura district, which is prevalent even amongst the highly educated and well-off people. It can not be prevented by a mere change of laws. Development of self-esteem among women and attitudinal changes of men will attack the evil of dowry from both sides-supply and demand. Educated and liberated girls will protest against and will not agree to marry if dowry is demanded. On the other hand, male awareness will raise a sense of morality among dowry-seekers and "there will be a public outcry against the vulgar display of wealth."

Such a milieu has to be created from both sides so that even the mention of word 'dowry' is considered vulgar and is condemned outright.

The ICDS workers, Mahila Samitis and Groups and the NGOs should work on a stronger footing and may involve in door-to-door campaigning for encouraging the family to form self-help groups.

On the macro level, women should be provided with all the necessary infrastructural facilities: (i) improvement in water supply system (increasing number of tube wells, excavation of ponds and increasing access to municipality water in urban areas, (ii) improved sanitation and increased coverage of electricity (in interior villages) and (iii) utilization of barren land for increasing supply of firewood will reduce women's toil and time for daily work and household activities and will save time to be spent for develop themselves; (iv) removing transport bottlenecks and increasing the access to health services by rural women. Introduction of micro level training

programmes for adoption of non-traditional activities by SHGs will help women to engage in more remunerative work and will improve their economic empowerment. This, together with improved educational status will raise the share of women's employment in the tertiary and secondary sector.

Higher attention at the family level for education of girls of the present generation and higher economic and social empowerment of present generation mothers will increase the percentage of women with higher education in Bankura district. The higher education institutions (general colleges, professional institutes and open universities) should also take part in the process of 'cultivating' enlightened and empowered women, not only formally educated, but also educated in true sense to take part in all the responsibilities of the mainstream of development process.

To be specific, some suggestions for training and assistance can be made here:

- (i) Making plate/dish etc from sal and palash leaves through indigenous process does not fetch remunerative prices to women in rural areas. Introduction of machines (technology up-gradation) can reduce the monotony of women on the one hand and will give remunerative prices to them on the other.
- (ii) Mushroom cultivation is gradually becoming popular in Bankura district. SHGs can be provided with training in this area.
- (iii) Training should be imparted on tailoring, wool knitting and embroidery with the introduction of sewing machine, knitting machine and embroidery machine.
- (iv) Training on food processing to produce tomato sauce, lemon squash, vegetable and mango pickles, etc.
- (v) Short duration training on pisciculture
- (vi) Training on incense stick making
- (vii) Assistance for plantation of medicinal plants like neem, haritaki, bahera, amlaki, etc. and protection of these forest products for proper marketing.
- (viii) Training on live stock rearing through the Department of Animal Husbandry and Livestock.
- (ix) The Panchayat bodies are yet to take adequate interest in SHG formation and initiating income-generating activities. Convergence with District Rural Development cell (DRDC) will help to strengthen skill development process and to enhance irrigation facilities through construction

of dug wells. Enhanced irrigation facilities will encourage cultivation of vegetable, floriculture, medicinal plants and herbs.

Bibliography :

- Acharya, M and Ghimire, P (2005) "Gender Indicators of Equality, Inclusion and Poverty Reduction", Economic And Political Weekly, October, 29.
- Bandyopadhyay, R "Sustainable Development and 'Gender': The Experience of Participatory Forest Management in West Bengal India," Jadavpur University.
- Chatterjee, B and Ghosh, D.K (2003) Towards a District Development Report for West Bengal, SIPRD, Kalyani.
- Datta, P and Sen, P (2003) Women in Panchayats, Dasgupta and Co. Pvt. Ltd.
- Dreze, J and Sen, A (eds) (1991) The political Economy of Hunger: Vol-III. Clarendon Press, Oxford
- Economic and social commission for Asia and the Pacific, UN (2003) Gender Indicators
- Economic and social commission for Asia and the Pacific (2003) Elimination of Violence against Women in Partnership with Man. Gender & Development: Discussion Paper series No. 15.
- Goulet, D (1971) The Cruel choice: A new concept on the Theory of Development, Atheneum, New York
- Joshi, U (1997) "Rural women: a more purposeful role," Kurukshetra, August.
- Kochar, J and Pandya, R.D (1992) "Status of women in India", Kurukshetra, March.
- Mahajan, N (1992) "Women's contribution in economic growth," Kurukshetra, March.
- N. Prem Kumar and A. Rahul Kumar (1992) "DWCR: A case Study", Yojana, March 31.
- Nussbaum Martha "Women, Family and Human Development", Text of Esther Boserup Memorial Lecture.
- Sarkhel J, Salim, S and Bhukta, A (2005) "Economic Development: Institutions, Theory And Policy." Book Syndicate (P) Ltd., Kolkata.
- Sen, A (1983) 'Development: Which Way Now?' Economic Journal, December.
- Sen A (1984) Poverty And Famines: An Essay in Entitlement and Deprivation, Clarendon Press, Oxford.
- State Development and Planning Department, West Bengal. West Bengal Human Development Report, 2004.
- State Institute of Panchayats & Rural Development Kalyani (2003) Baseline and Techno-economic Survey of Swayamsidha in Bankura.
- Thirlwall, A.P (1999) Growth And Development, Machrillan press ltd.
- UNDP, Human Development Report, 1990, 1995;
- UNDP, Human Development in South Asia, 2000
- UNDP, Human Development Report in India, 2001

Vulnerability

Chapter 6

6.1 Introduction

Vulnerability refers to the cushion available to a community to combat any kind of threat to human well-being and existence. Vulnerability is a dynamic concept in which we try to understand as to how a system responds to an external trigger and how resilient it is in maintaining its stability. Vulnerability has emerged as a leading concept in the field of development economics. UNEP's Global Environment Outlook (GEO) had formed a working group on vulnerability. The group has defined vulnerability as "the exposure to hazard by external activity (e.g. the climate change) and coping capacity of the people to reduce the risk at a particular point of time." A broad conceptual framework has been developed to assess human vulnerability. Selected criteria for vulnerability include social (health, poverty), economic (economic losses, loss of intellectual property rights etc.), natural (loss of natural heritage, extreme events), and institutional (conflict).

The Human Development Report of 1994 has differentiated the concept of Human Security from Human Development. It mentioned: "In defining security, it is important that human security not be equated with human development. Human development is a broader concept – defined in previous Human Development Reports as a process of widening the range of people's choices. Human Security means that people can exercise these choices safely and freely – and that they can be relatively confident that the opportunities they have today are not totally lost tomorrow".

Thus development is a necessary, but not sufficient condition to ensure 'Human Security'.

In the present exercise we have attempted to understand the nature and source of vulnerability in Bankura. Following areas have been identified for analysis:

1. Food security
2. Migration
3. Housing
4. Crime and violence

5. Debt burden
6. Security from natural calamities
7. Social security
8. Special vulnerable and stress-prone groups

6.2 Food security :

6.2.1 The scenario :

Technically sustainable food security is defined as "Physical, economic, social and ecological access to balanced diet and safe drinking water so as to enable every individual to lead a productive and healthy life in perpetuity".⁵ To analyse and understand the food security, there are five major dimensions. The first factor is availability of food—which is related to purchasing power, distribution within the family, absorption of food in the body which is determined by the availability of safe drinking water and environmental hygiene. The other factors are primary health care, primary education, vulnerability to transient hunger, which is related to natural and manmade calamities and disasters and sustainability of production which is influenced by the extent of attention given to the ecological foundations essential for sustained advances in production.

In the context of resource poor and marginalized families, amongst the multiple vulnerability factors, access to food is the most important one. To them, food security implies managing two square meals in a day for all the family members from assured livelihood sources.

In the livelihood pattern of the marginalized families of Bankura district, survival means constitute a few limited options which may or may not be of their liking. There are large uncertainties associated with these options too, based on their very limited capacity to manage natural resources. If means within their control (viz. cultivation from own land holding) is hampered due to drought-like phenomenon or after acute or chronic natural disaster, vulnerability is compounded due to uncertainty of getting alternative employment, lower wage rate, more dependency on money-lender, selling of domestic assets etc.

⁵ M.S.Swaminathan, Food security and sustainable development

Table 6.1 Distribution of sample households on the basis of land holding (in backward mouzas)

Category	Number of households	Percentage
Landless (0-0.10 Bigha)	336	49.85
Marginal (0.11-7.5 Bigha)	312	46.29
Small (7.5 Bigha to 15 Bigha)	24	3.56
Big (above 15 Bigha)	2	0.3
Total	674	100

Source: Office of the District Magistrate, Bankura

Table 6.2 Distribution of sample households by number of months of migration (in backward mouzas)

Period	Number of households migrating	Percentage of households migrating with respect to the total number of families surveyed
For 7 Months and above	0	0
For 6 Months	57	8
For 5 Months	15	2
For 4 Months	38	6
For 3 Months	103	15
For 2 Months	79	12
For 1.5 Months	5	1
For 1 Month	73	11
No migration	304	45
TOTAL	674	100

Source: Office of the District Magistrate, Bankura

A sample study was conducted to understand the nature and depth of food insecurity. The samples had been collected from the backward mouzas. A backward mouza has been defined as the mouza where female literacy rate is less than 30 percent and the marginal and non workers are more than 60 percent. 566 such mouzas have been identified in the district, i.e. 16 percent of the total of 3543 inhabited mouzas of the district which fall under the category of extremely disadvantaged, most insecured sections who manage their living and livelihood in utmost difficult ways.

The survey has been conducted by the office of the District Magistrate. Bankura-I, Barjora, Saltora,

Gangajalghati, Sonamukhi and Khatra Block had been selected in which 674 families were selected for survey. The results of the surveys are indicated in Table 6.1, Table 6.2 and Table 6.3.

The study shows that 96 percent of the families are resource-poor i.e. land-less & marginal and this huge fraction of the population has the uncertainty over food security in some form or other on a sustained basis. More than 75 percent families have some sort of dependency on the non-formal financing mechanism i.e. the money-lenders for their survival. 55 percent have to migrate from their own place for search of job elsewhere for a period of one month to six months.

Table 6.3 Distribution of sample households by number of months depending on money-lenders for sustenance (in backward mouzas)

Number of households depending on money-lenders for sustenance for a period					Number of households not depending upon money-lenders at all	Total number of families
Upto 2 months	Upto 2+ to 4 months	From 4+ to 6 months	From 6+ to 8 months	From 8+ months to 1 year		
266	180	47	20	10	151	674

Source: Office of the District Magistrate, Bankura

As can be seen 92 percent families (620 out of 674) have to depend on daily wages for some period within the year and the range varies from one month to twelve months. It appears from the pie chart shown below that 95.4 percent of the population is not able to manage their yearly food requirement from their own agriculture

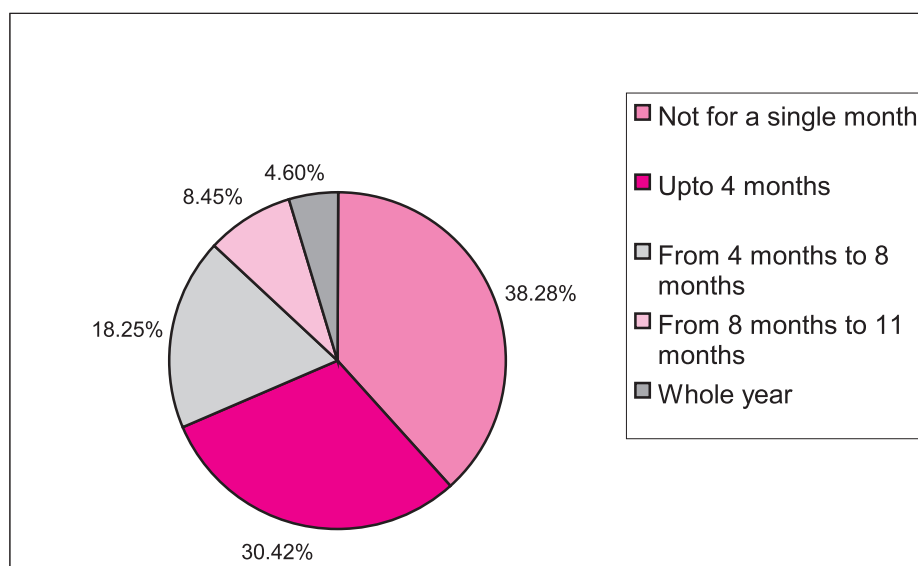
production. On the other hand, 96.1 percent of the families are landless/marginal with respect to land holding.

Thus it is clear that the landless and marginal farmers are not able to manage the food requirement for the whole year.

Table 6.4 Distribution of sample households by number of months depending on daily wage for sustenance (in backward mouzas)

Number of months	Number of households depending on daily wage	Percentage to the total number of households surveyed
12	12	1.78
11	4	0.59
10	5	0.74
9	29	4.30
8	60	10.09
7	66	9.79
6	121	17.95
5	57	8.46
4	40	5.93
3	46	6.82
2	70	10.39
1	54	8.01
Total	674	100.00

Source : Office of the District Magistrate, Bankura



Pie chart 6.1 Distribution of sample households by number of months depending on food from own agricultural production (in backward mouzas of three RSVY Blocks of Saltora, Chhatna and Indpur)

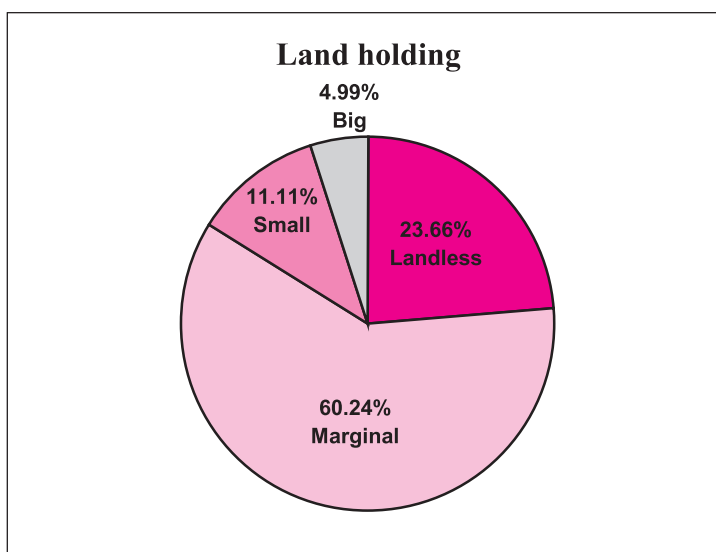
Another study of similar nature had been conducted while making family baseline surveys during formulation of micro-watershed plans under Rashtriya Sam Vikas Yojana (RSVY). Here the families belonged to a particular geographical area comprising a micro-watershed. A sample of 2206 families was drawn from

some villages of Saltora, Chhatna & Indpur blocks and it is seen that 23.66 percent families are landless with virtually no scope for food grain production from own land. The land holding status for the surveyed villages is indicated in pie chart 6.2.

Table 6.5 Distribution of sample households by number of months depending on food from own agricultural production (in three RSVY blocks)

Number of	Block-wise number of sample households depending on food from own agricultural production			Total number of households	Percentage with respect to the total households surveyed
	Saltora	Chhatna	Indpur		
Not for a single month	315	30	285	630	28.56
Upto 4 months	170	51	122	343	15.55
4+ to 8 months	255	63	110	428	19.40
8+ to 11 months	158	12	23	193	8.75
For whole year	409	48	155	612	27.74
Total	1307	204	695	2206	100.00

Source:- Office of the District Magistrate, Bankura



Pie Chart 6.2 Distribution of sample households on the basis of land holding (in three RSVY blocks of Saltora, Chhatna and Indpur)

(Source: Office of the District Magistrate, Bankura)

Table 6.6 Distribution of sample households by number of months migrating (in three RSVY blocks of Saltora, Chhatna and Indpur)

Period	Number of households migrating	Percentage of households migrating with respect to the total number to families surveyed
More than 7 months	20	0.91
6 months	10	0.45
5 months	4	0.18
4 months	37	1.68
3 months	166	7.52
2 months	211	9.56
1 months	53	2.40
No migration	1705	77.29
Total	2206	100

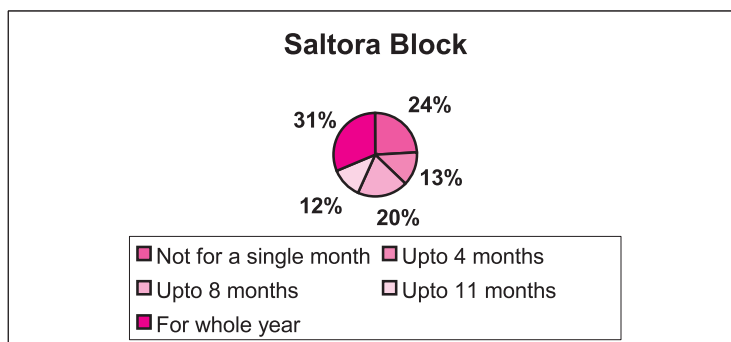
Source:- Office of the District Magistrate, Bankura

60.24 percent families are marginal with less than 2.5 acres of land-holding and with the given geophysical condition of the district, are living at the subsistence level, i.e., very vulnerable to any stressed situations like natural calamities, illness or other acute need in the families etc. As far as migration is concerned, 22.71 percent families migrate to other areas from 1 to 6 months in a year mostly to combat food crisis. The table

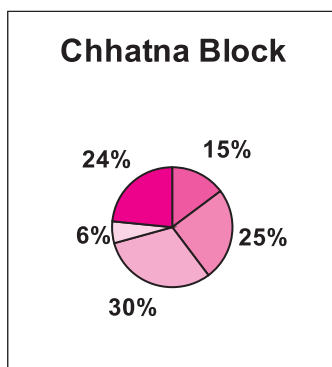
6.6 shows the status of migration from the study area in the micro-watershed.

Out of the food-grain from their controlled means i.e. production from own land, 27.74 percent families manage for the whole year.

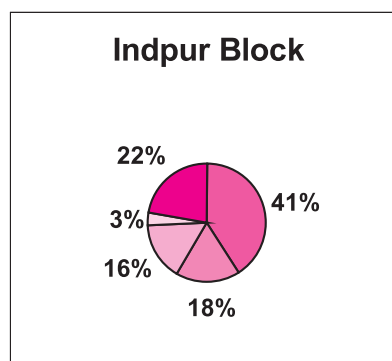
About 28.56 percent of the families have to totally depend on other sources for their livelihood as they don't have any agricultural production.



Pie chart 6.3



Pie chart 6.4



Pie chart 6.5

**Period of an year for which livelihood is sustained from agricultural production in own land
(in three RSVY micro-watersheds)**

(Source:- Survey conducted by the Office of the District Magistrate, Bankura)

The distribution of daily wage-earners is shown in table 6.7.

Table 6.7 Distribution of sample households by number of months depending on daily wage for sustenance (in three RSVY blocks)

Number of months	Number of households depending on daily wage	Percentage to the total number of households surveyed
12	170	7.71
11	22	1.00
10	111	5.03
9	106	4.81
8	223	10.11
7	116	5.26
6	228	10.34
5	68	3.08
4	153	6.94
3	121	5.49
2	155	7.03
1	42	1.90
0	691	31.32
Total	2206	100

Source: Office of the District Magistrate, Bankura

As is seen 68.68 percent of the families have to depend on daily wages for some period of the year to manage their food requirement. There is also substantial dependence on the money-lenders as is revealed from Table 6.8.

It is seen that 35.77 percent families have to take loan

from the money-lender for at least some period of the year to maintain their livelihood.

The two categories of surveys reveal that the people living in backward mouza are the most vulnerable. Micro-watershed is a bigger geographical area which averages out the level of deprivation.

Table 6.8 Distribution of sample households by number of months depending on money-lenders for sustenance (in three RSVY blocks)

Upto 2 months	Number of households depending on money-lenders for sustenance for a period				Number of households not depending upon money-lenders at all	Total number of families
	Upto 2+ to 4 months	From 4+ to 6 months	From 6+ to 8 months	From 8+ months to 1 year		
621	164	3	0	1	1417	2206

Source:- Office of the District Magistrate, Bankura

6.2.2 Food-grain availability :

In Bankura, the net sown area is 348130 Hectare, which is 50.59 percent of the whole geographical area of the district. Forest area is 147700 Hectare, i.e., 21.46 percent of the whole geographical area. Altogether 72.05

percent area of the district is productive area or potentially productive area. As the figure reveal in Table 6.9, under a favourable natural condition, Bankura district appears to be self-sufficient in food-grain production.

Table 6.9 Food-grain production in Bankura in the year 2003-04
(in thousand tones)

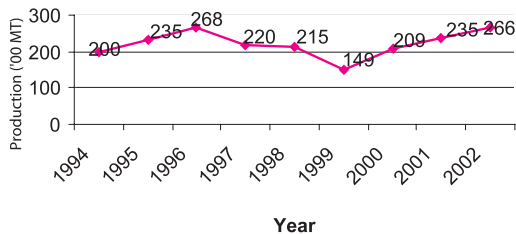
Rice				Wheat	Maize	Other cereals	Total cereals	Total pulses	Total foodgrains
Aus	Aman	Boro	Total						
54.2	707.0	105.8	867.0	19.6	0.7	0.3	887.6	0.7	888.3

Source:- Bureau of Applied Economics & Statistics, West Bengal

But if we analyse the area-wise distribution in agricultural production taking into account the three years' moving averages of production, we will see that in most of the blocks there is no rising trend and there are wide variations in the food production between year to year (except Indus). Fluctuations in foodgrain lead to high state of vulnerability. Specially Hirbandh appears to be more vulnerable in this respect. Mostly farmers

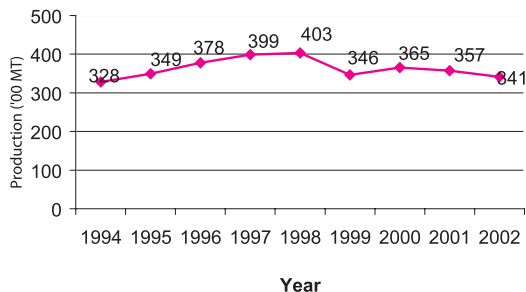
are habituated to grow paddy even on the upper land (locally known as 'baid' land). This results in crop failure in low rainfall condition, which causes uncertainty. In any case, in most of the areas, agriculture is rainfed and if the precipitation is not at the appropriate time, there is a crop loss. Block-wise foodgrain production is graphically depicted in the following pages.

Bankura-I Block



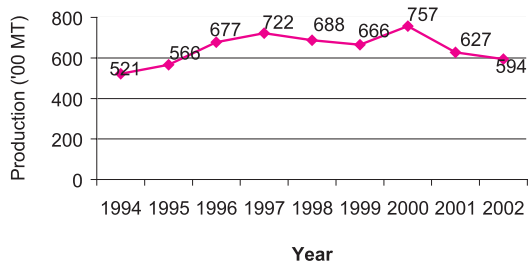
Graph 6.6 Bankura-I Block

Bankura-II Block



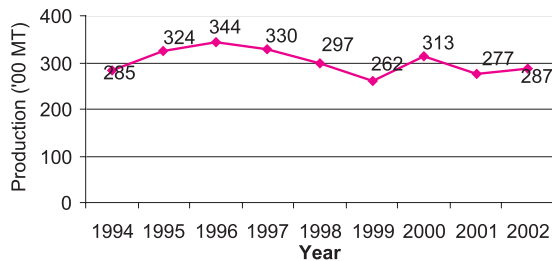
Graph 6.7 Bankura-II Block

Chhatna Block



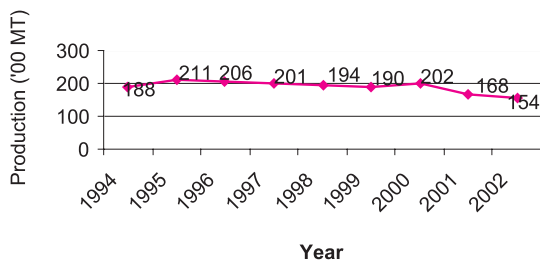
Graph 6.8 Chhatna Block

Saltora Block



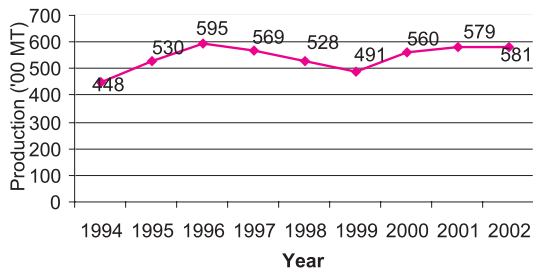
Graph 6.9 Saltora Block

Mejhia Block



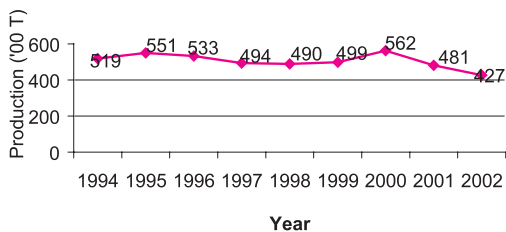
Graph 6.10 Mejhia Block

Gangajalghati Block



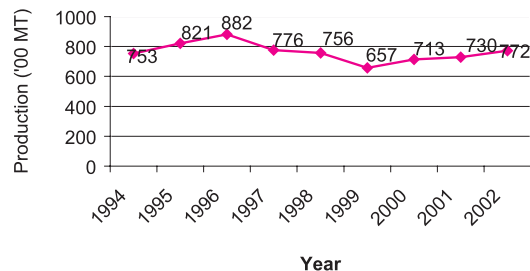
Graph 6.11 Gangajalghati Block

Barjora Block



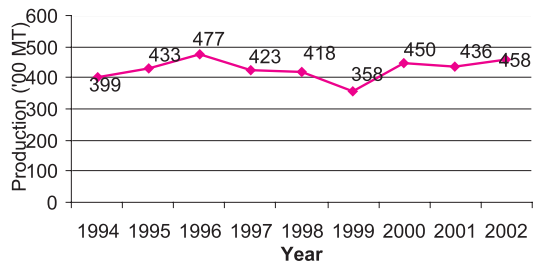
Graph 6.12 Barjora Block

Onda Block



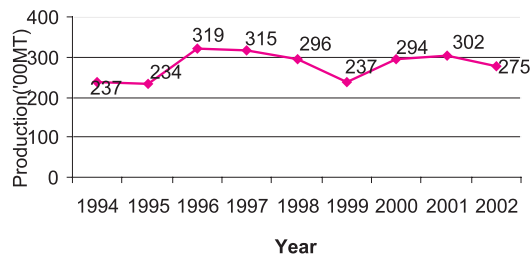
Graph 6.13 Onda Block

Indpur Block



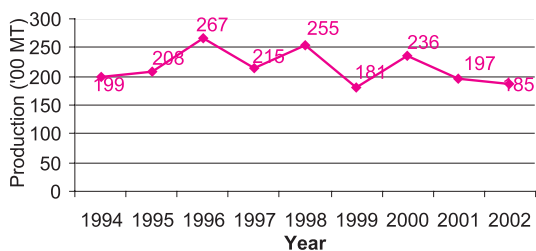
Graph 6.14 Indpur Block

Khatra Block



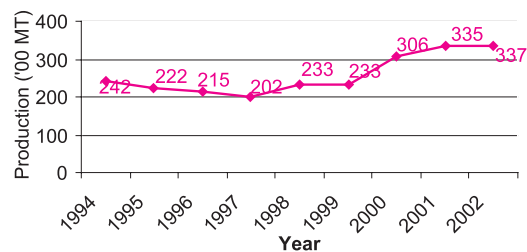
Graph 6.15 Khatra Block

Hirbandh Block



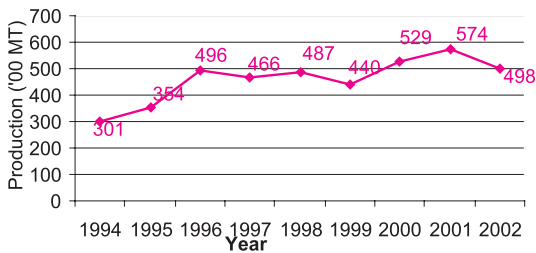
Graph 6.16 Hirbandh Block

Ranibandh Block



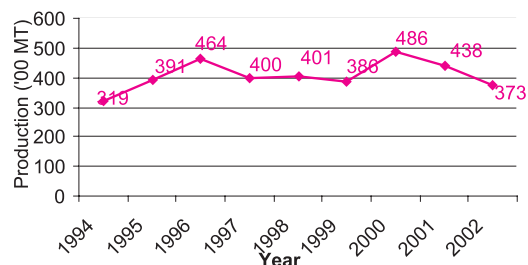
Graph 6.17 Ranibandh Block

Taldangra Block



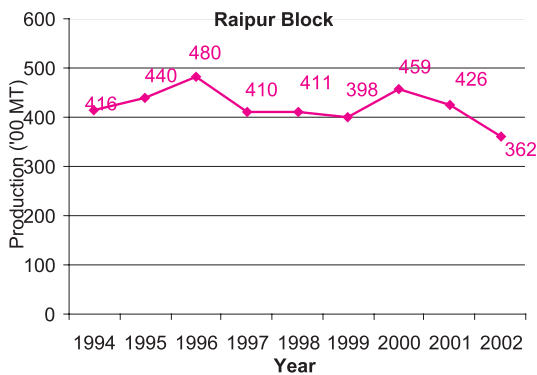
Graph 6.18 Taldangra Block

Simlupal Block



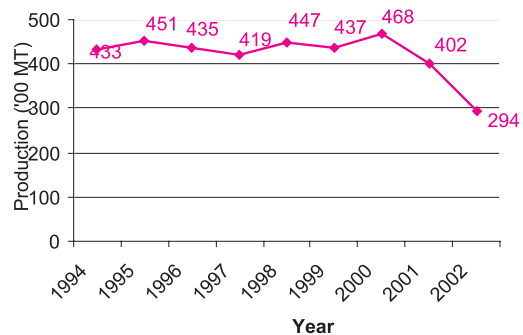
Graph 6.19 Simlupal Block

Raipur Block

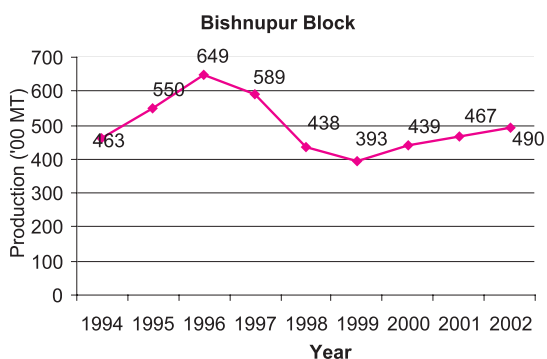


Graph 6.20 Raipur Block

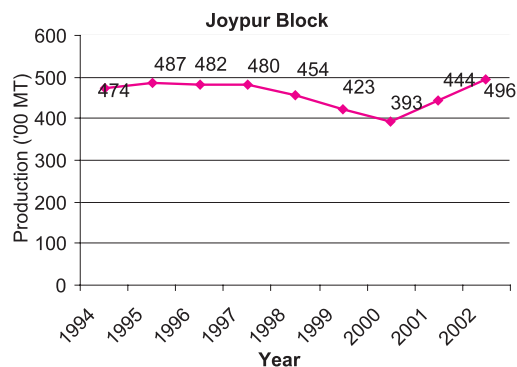
Sarenga Block



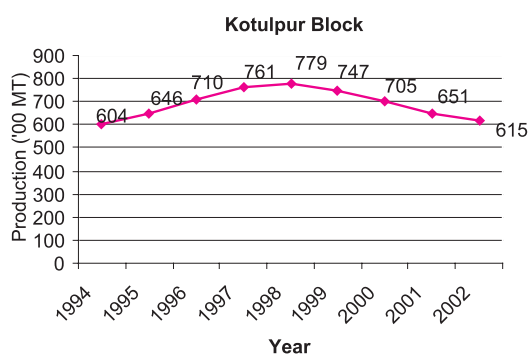
Graph 6.21 Sarenga Block



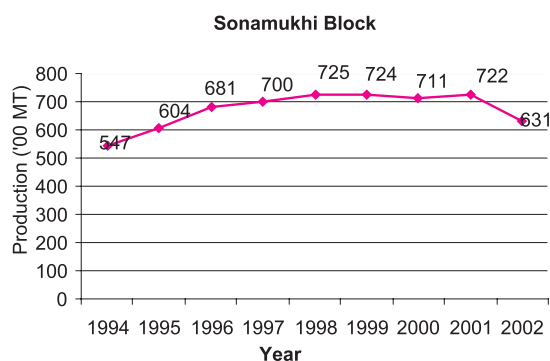
Graph 6.22 Bishnupur Block



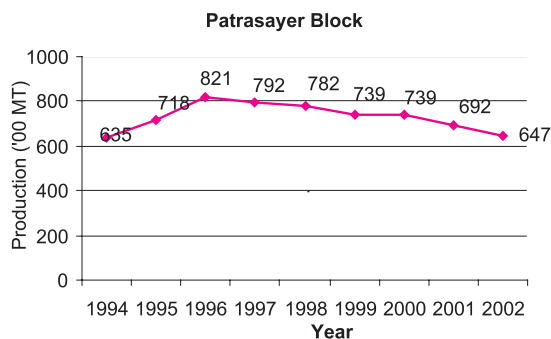
Graph 6.23 Joypur Block



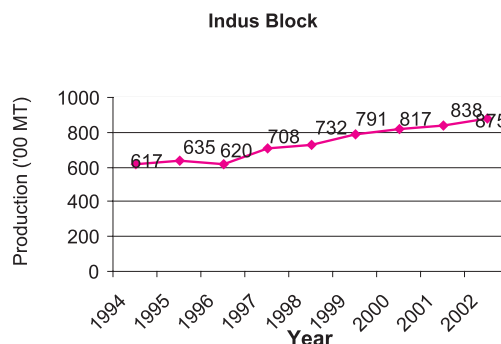
Graph 6.24 Kotulpur Block



Graph 6.25 Sonamukhi Block



Graph 6.26 Patrasayer Block



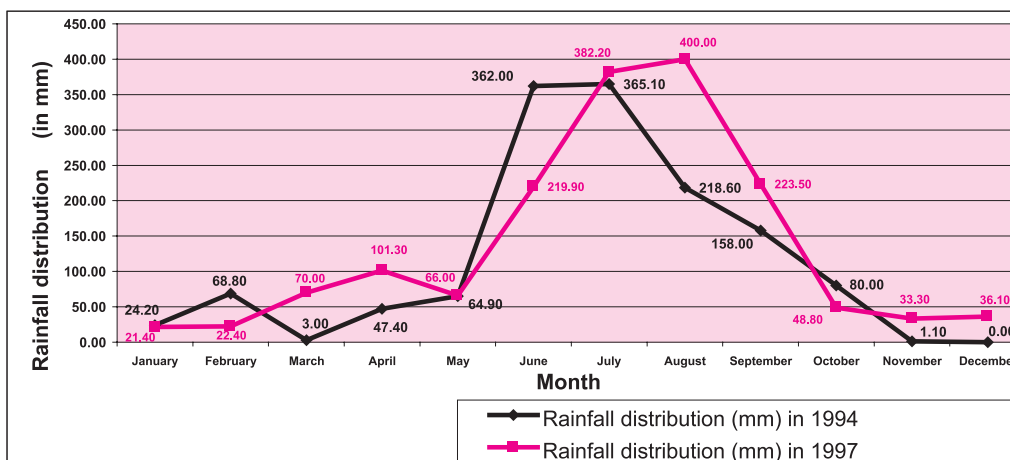
Graph 6.27 Indus Block

Graphs 6.6-6.27 Three years moving averages of foodgrain production in the blocks of Bankura

(Source:- Bureau of Applied Economics and Statistics (BAES), West Bengal)

In this context we can see one interesting feature, if we look at the rainfall in Chhatna block during the years 1994 and 1997 and analyse the corresponding food-grain production. Here it is seen that the though the increase in rainfall is 16.6 percent in 1997 compared to 1994, there is 71.5 percent variation in

production. Monthly rainfall has been analysed for both cases as shown in the figure. There is a strong correlation between the rainfall distribution and the food-grain production (the higher food-grain production has, in fact, been an outcome of a steady well-distributed rainfall).



Graph 6.28 Rainfall distribution in Chhatna Block during 1994 and 1997

(Source:- Office of the Principal Agricultural Office, Bankura)

6.2.3 Building food security :

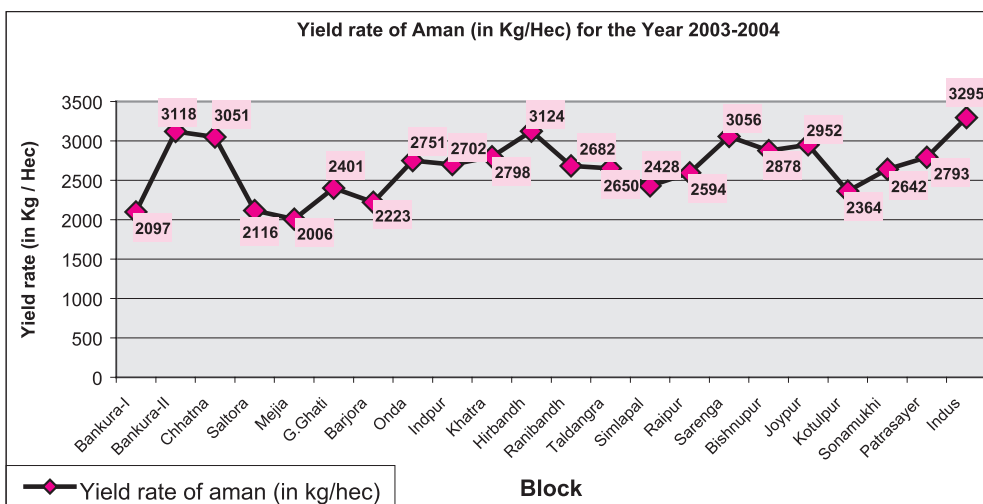
We can at this stage find three conditions, if fulfilled, ensure food security:

- i) Adequate food production.
- ii) Availability of food grains at affordable prices for the economically weaker section of the population.
- iii) Adequate purchasing power of the people.

We have analysed the productivity in different blocks in the district. For the sake of simplicity we have taken aman paddy production and net cropped area. As can be seen different blocks are at different levels of productivity with Indus being at the peak. The soil type of eastern Bankura (mainly Indus, Patrasayer and Joypur) is alluvial which has contributed to the high

productivity. Assured canal irrigation is another factor. The western red lateritic zone is certainly at a disadvantage, which makes it more vulnerable. The efficacy of fertilizer is less in this part because of acidity of the soil. We have taken up following interventions in this regard which has shown good results and may be scaled up:

1. Use of soil ameliorates to take care of soil acidity
2. Crop diversification: Demonstration Centres (DC) of maize, arhar, khesari under RSVY
3. Grain Bank
4. Programmes undertaken under employment guarantee scheme
5. Distribution of foodgrain under Antodaya Anna Yojana (AAY) and Annapurna Yojana.



Graphs 6.29 Productivity in different Blocks (Yield rate of Aman) (Sources:- BAES, West Bengal)

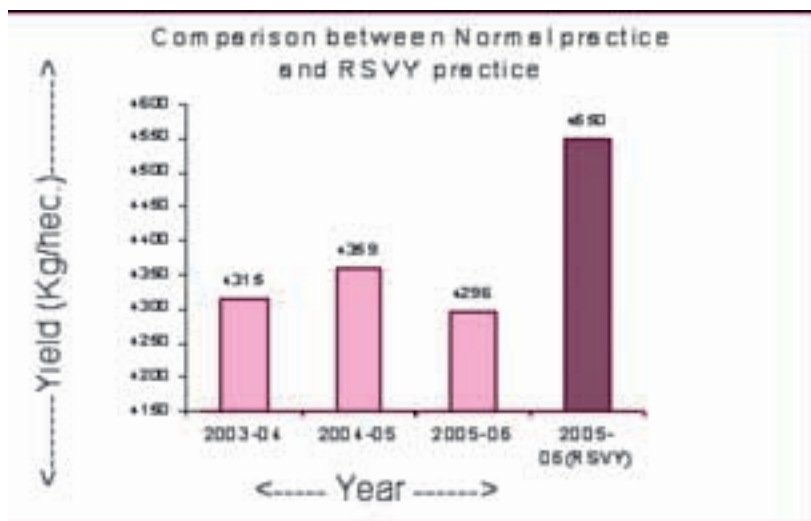
6.2.3.1 Soil ameliorates and organic farming

The general pH level of this district is low (i.e. acidic) and in many cases analysis report shows that it is as low as 4.5, which is posing hindrances in enhancing productivity of crop due to low fertilizer-use efficiency. Following the practice of agriculturally advanced districts, the small and marginal farmers of Bankura tend to apply chemical fertilizers on agricultural lands with a hope of improved production. But as the soil is acidic, it affects the plants growth by reducing the absorption of nutrients from the soil.

The other important factor is lack of micro-nutrients. In acidic soil there is generally a deficiency of micro-nutrient and, in Bankura soil, there is a deficiency of zinc and boron.

During 1998-2001 an N.G.O. undertook a special intervention in some selected areas of Chhatna and Indpur in which after testing of soil, corrective measures were taken by application of basic slag/lime and use of organic manure compost pit was promoted. The changes as perceived by the farmers are mentioned below:

1. Loosening of the soil from the next season as 'ploughing became very easy and comfortable';
2. Growth of the crop (paddy) was very encouraging, it remained green till maturity;
3. The grain was almost full with very few chaffs, ears were longer;
4. Length of the straw also increased



6.30 Variation of yield after introduction of soil ameliorates, bio-pesticides in RSVY blocks

Sources:- Office of the District Magistrate, West Bengal

They experienced these positive effects for 3-4 years after one application. In the programme some additional supportive measures like use of improved quality seeds, promotion of organic manure (compost, green manure) in appropriate quantity and of improved quality were taken. All the supported families experienced improved production from 50 percent to 100 percent. Provision for second cropping was possible with water management and situation-specific cropping practices. Also from an average base level of 45 percent, food security of 80 percent on an average was achieved.

Considering the results, steps have been taken under RSVY for supply of dolomitic lime as soil ameliorate so that the poor farmers get higher productivity thus gaining yield with lower dose of chemical fertilizer, which would result in lower production cost and uplift their economic status. In the strategy the soil testing is being done for the land and then as per soil-testing report, the dose of dolomitic lime is applied to the extent of 1.5 MT. per hectare. Application is made at least 21 days before final ploughing for transplanting of rice or sowing of other crops. The beneficiaries are contributing 10 percent of the total cost.

6.2.3.2 Crop diversification :

Crop Demonstration had been planned for capacity building on improved agriculture and for enhancement of crop production. During the period of 2004-'05 and 2005-'06 Agriculture Department of the district has started Demonstration Centres (DC) in 13 RSVY blocks. The crops are mainly maize, rice, Arhar, Kalai, wheat, mustard, lentil, gram, Til etc.



6.1 Maize cultivation under RSVY

Maize is a crop, which can change the economy of the resource-crunch area like unutilized and underutilized terrain lying in the district. This has been proved in 275 hectare of land by introducing Kharif maize DC in different parts of 13 RSVY blocks during 2005-06. No prime and fertile land was utilized for this DC and no major irrigation was needed. Average income through sale of production was Rs. 50,000/- per hectare. The department of Agriculture selected one hectare as a unit where 5 farmers' family gave their labour. The benefit

accrued per family after meeting all costs was Rs. 6,000/-. In fact, the return was substantial even when the paddy on similar plots failed due to low rainfall.

(i) Maize :

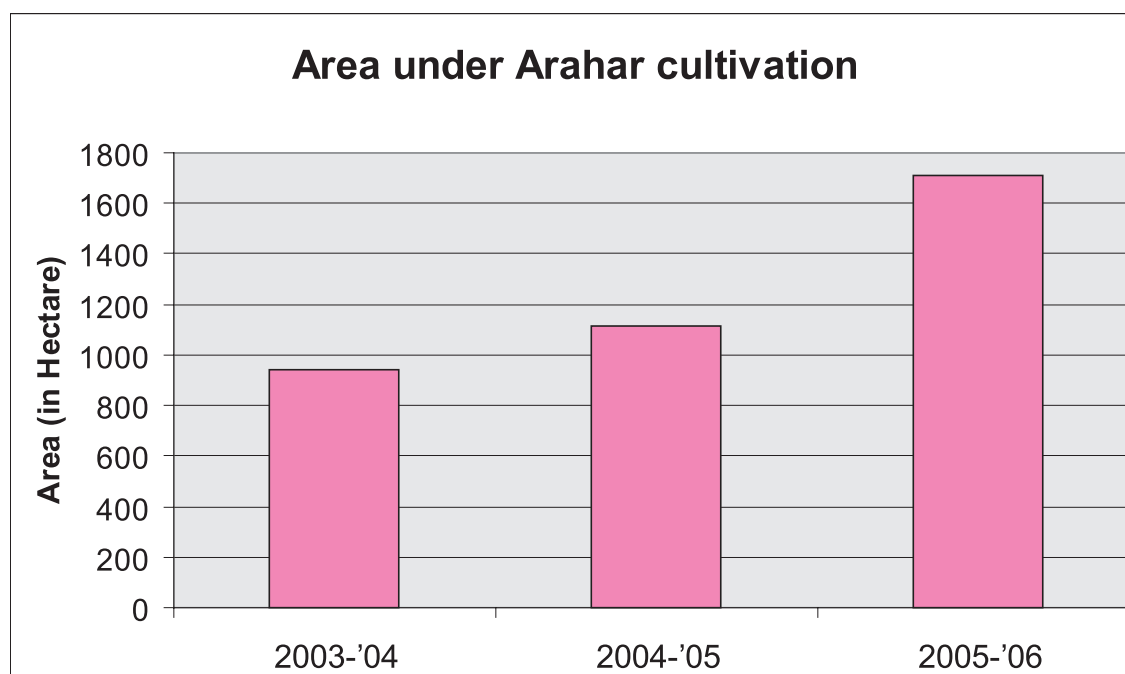
Table 6.10 Area under maize cultivation in the district

Year	2003-'04	2004-'05	2005-'06
Area (in Hec.)	1722	1804.2	2702

Source:- Office of the Principal Agricultural Office, Bankura

(ii) Arahar :

In the district of Bankura there is vast underutilised and unutilised upland that remain practically fallow throughout the year. This uncultivated upland is very much prone to soil erosion. The top soil gets eroded with the flow of rain water causing siltation of the rural ponds decreasing water storage area and low water availability for irrigation purpose. 'Arahar' (Cajanas Cajan L.) is a unique pulse crop for these upland. Arahar is a moderately deep-rooted crop which can thrive well in the intermittent drought situation, which is a common phenomenon of this district due to erratic nature of the monsoon and it is



6.31 Area under cultivation in the district

(Source:- Office of the Principal Agricultural Office, Bankura)

seen that this crop gives economic yield even in locations where other crops can not survive. So a vast untapped area of this district can be brought under the cultivation of Arahara crop to bring a change in rural economy. Besides checking soil erosion, this crop provides good amount of fuel-wood, thus reducing pressure on the existing forest. Nowadays, varieties of Arahara of 120 to 130 days duration are available. Arahara can also be grown with kharif groundnut and kharif maize very effectively. Such intercropping gives two types of crop from a single location and guarantees yield from at least one crop in case of failure of other crop.

In the year 2005, demonstration centers of 59 hec. of Arahara was organized in the thirteen RSVY blocks of this district. In no case existing crop of a particular location was replaced and the total intervention area was on unutilised fallow land. The average yield was 1000 Kg. per hec. with net profit of Rs. 16000/- per hec.

(iii) Khesari :

In the district, vast tract of land remain fallow after harvesting of Kharif paddy due to scarcity of irrigation source. However, it is seen that almost every year this district receives rainfall in later part of season and in the maturity stage of Aman paddy on several occasions. The agro-climatic condition is very much suited for cultivation of Khesari (*Lathyrus Sativus L.*), a pulse crop with tougher morphological and physiological character in comparison to other pulse crops. This crop can be easily grown as paira (relay cropping) by utilising the stored residual soil moisture after Aman paddy is harvested without incurring any additional expenditure for tillage of land or application of chemical fertilizer.



6.2 Paddy DC in Hirbandh Block

being as high as 900 Kgs./hec. and net return Rs. 11,600/- per hectare.

Except introduction of non-conventional crops, rice DCs have been designed in RSVY blocks in a unique manner with most scientific intervention like use of soil ameliorates, introduction of bio-pesticides and remarkable results have been achieved. Whereas the district average yield of Aman paddy in 2005-'06 was 4296 Kg./hec., the average yield of the RSVY Aman paddy DC was 4550 Kg./hec.

6.2.4 Grain Bank :

(A) Background and purpose of the Grain Banks

While working with the marginalized poor & landless communities, to ensure their regular & active participation in the community development process and to analyse their socio-economic challenges, one critical factor is indebtedness to the money-lenders due to food crisis in certain period of the year. This crisis usually comes during the lean period, i.e., from August to October month of the year (lack of labour-oriented



6.3 Grain bank at Nidaya (Tulsi), a tribal village under Bankura-I Block

work) and in critical conditions (like drought etc.) on even earlier and at any time of the year. During the lean season they have two options — either to contact the money-lender or well-off persons in the area to take loan mostly in the form of food grain, or if there is a possibility, migrate to other areas for labour oriented job.

While they take loan from the moneylenders, they have to repay it after harvest, i.e, in the month of November-December with 50 percent interest (in 3-4 months), and this vicious cycle goes on worsening their situation year after year. The repayment is in kind and thus it is a real rate of interest.

To address this food crisis issue, the idea of establishing community-managed grain bank has been evolved after series of discussions with the affected families. It is an effective measure to solve the food-crisis of the poor and marginal families and bringing them out of the clutches of the money-lenders within 3-5 years, if conditions otherwise remain normal (like no natural calamity, disaster etc.).

The accounting and management is very simple and is done by the group itself after inculcating desired credit discipline amongst the members.

(B) Goals and objectives :

The goals and objectives of the project is:-

1. To establish food security;
2. To stop migration so that their education, health and other livelihood issues are properly addressed and they can contribute significantly to reduce their vulnerability through continued and active participation in the development process.

(C) Processes involved :

1. Rapport building with the community
2. Identification of the food-deficit families, their source of livelihood etc. through PRA exercises (along with other socio-economic status assessment like education, health, agriculture etc.)
3. Analysis of the root cause of food insecurity through group meetings in general and identification of the means of their survival in existing situation, finding out alternatives and support from the communities both affected and non-affected. All these discussions culminate into the establishment of a self-managed sustainable grain bank. The next step is the capacity assessment to raise contribution from the community, external support needed etc. This process needs several sittings with the community so that they internalise the whole issue of the problem analysis, and solving alternatives. Total quantity of grain required to solve the problem is also assessed.
4. On understanding the issue of self-management and development of ownership, the members are encouraged to contribute as per their capacity after the harvest. The quantity for initial contribution to form the nucleus of the grain bank is decided by the groups. Usually they are not able to make the contribution of more than 20-25 kgs. per family, since they have also to repay the past loans.
5. Membership for a grain bank is usually kept between 15-30 for better management. However few exceptional cases may be there.
6. Initial external grain support is 8-10 quintal, depending upon the size of the group.

7. Altogether 10-12 quintal becomes their seed capital to start the process. Quantity of grain to be provided to each member family is decided by the group, sometimes at the initial stage.

8. Repayment period/date is decided during distribution and informed to all members.

9. For repayment, usually the groups decide 20 to 25 percent additional quantities on distributed amount. In case, when they get good harvest due to favourable natural condition, they even pay more, as they feel whatever they are depositing is after all their own and who knows 'what will be the situation next year, if there is some untoward natural condition, drought, cyclone etc.'

10. Once started, the process goes on. It is not only a sharing of grain from their own bank, it is also a matter of dignity and prestige to them, as wife or husband of the family do not have to pay visit to the money-lender, sit in a corner of the courtyard, bowed head, to face some derogatory comments from the money-lender while filling their bag of loan.

11. There are 67 grain banks till date at RDP Bankura Unit, of LWS-India. On the same concept 116 grain banks have been taken up under RSVY in the district.

12. Usually January-April is the time for grain bank support, structure is constructed according to quantity stocked by the group and usually after one or two cycle. Till then the groups stock the quantity in traditionally built structures or in bags in some member's custody.

(D) Budget at current cost :

1. Approximately Rs.13,000/- to Rs.15000/- depending upon group-size/capacity.
2. Expenses related to maintenance, record keeping etc are borne by the communities/groups.

(E) Conclusion :

The concept of grain bank is not new. The success of grain bank in this district may be attributed to two factors. Firstly, the project design is participatory wherein the community also contributes in terms of food-grain and also the management. Secondly, the hamlets, which are actually facing food deficit, are taken up. A mechanical implementation of this kind of intervention without adequate stress on the above two issues may lead to the failure of such interventions.

Grain Bank at Pirolgaria : a case study

Pirolgaria is a small tribal village with 16 families under Kamalpur. Like other tribal villages, the habitation started close to the forest, but the forest area has denuded with the passage of time leaving behind undulated areas barely productive. Food insecurity, lack of employment opportunity, high illiteracy, ignorance, poor health status, lack of health awareness and health facilities etc. were common. In spite of all the odds, the socio-economically homogenous community of marginalized status had their community feeling. 'We are in the same boat, brother', but the boat was not full of prosperity, rather tormented with anxiety of uncertainties.

During the baseline survey, it was found that with all the opportunities of engagement in agriculture, labour-oriented job, migration etc., 10 families suffer from a food-grain deficit of 3 months and 5 families for 1 month. They had to take loan from the local money-lenders with 50 percent interest within 3-4 months.

'Can you manage this acute problem of food crisis?'

—'How we can? We have small patches of land, and we don't have adequate irrigation except rainfall to get production from that.'

'Can you collectively store grain for the crisis period?'

—'How is it possible? We need nearly 30 quintals of paddy to meet the crisis. How we can store that quantity as paddy is mostly the means of meeting all the needs for our survival.'

'Can you start the collection henceforth?'

They nodded affirmatively.

1998 was not a good year for them as scarcity of rainfall reduced their production to a great extent. However, whatever they could harvest, from each of the 15 families they could contribute 15 kgs. Thus collective accumulation was 225 kgs. To this amount a support of 900 kgs. of paddy in the month of March'99 was given. They stored the quantity for the lean period. In the month of September they distributed among themselves 75 kgs. of grain for each family. The growth of foodgrain is mentioned in the table below:-

Table 6.11 Total requirement to meet the deficit as estimated in the year 1998

Particulars	Quantity
5 families each with one months deficit =	(5 x 1) qtl. = 5 qtl.
10 families each with three months deficit =	(10 x 1) qtl x 3 = 30 qtl.
For 15 families =	35 qtl.

Source:- Report of survey conducted by LWS-India

They had suffered a lot from exploitation in the past, and they are trying with utmost sincerity to overcome the crisis as early as possible. After the harvest, they store as much additional quantity as they can. They feel, whatever the stock that is of their own, the additional quantity will improve their own capacity to fight against the odd.

As they are taking the integrated approach with support from the project unit, agricultural intervention has improved their production and engagement opportunity in spite of all the odds. Within three years

of successful operation of grain bank and additional production from agricultural intervention, migration for want of engagement and food declined gradually. While in the year 1998-99, seasonal migration was more or less common to all and four families migrated for most of the period of the year, during the year 2001, member from three families migrated during the transplanting period only.

Table 6.12 Distribution and recovery pattern

Year	Quantity distributed			Quantity returned			Additional quantity in return	
	No. of families	Quantity per family (kg)	Total quantity (kg)	No. of families	Quantity per family (kg)	Total quantity (kg)	Qty. (kg)	Percent
1999	15	75	1125	15	92	1380	225	22.66
2000	15	92	1380	15	122	1830	450	32.60
2001	15	122	1830	15	146	2190	360	20.00
2002	15	145	2190	15	175	2630	440	20.00
2003	15	175	2630	15	210	3150	520	20.00
2004	15	210	3150	15	252	3780	630	20.00

Source:- Report of survey conducted by LWS-India

Till the year 2001, seven families could overcome the crisis of lean period and eight families had crisis for food-grain for one month only.

The year 2001 was the rare favourable year for the area as there was regular and satisfactory rainfall during the monsoon. They planned to store at least 40 percent additional quantity, so that there was no anxiety for two square meals in a day for all the members in the community.

6.2.5 Activities undertaken under employment generation programmes :

The employment generation programmes undertaken by the government are taken up with the objective of providing gainful employment to the rural people so that

they can manage their livelihood specially during the lean seasons of the year. However, due to limited scope and timely availability of fund, the schemes have not always achieved desired results so far as providing employment and food security is concerned.

Table 6.13 Progress under National Rural Employment Guarantee Programme (up to 31st. July, 2006)

Sl. No.	Item	Achievement
1	Job-card issued (no.)	299771
2	Employment provided to households (no.)	64063
3	Employment provided to individuals (no.)	138482
4	Works completed (no.)	127
5	Works in progress (no.)	901
6	Expenditure (in Rs. Crores)	12.29
7	Person-days created (no.)	1362938

Source: Office of the District Magistrate, Bankura

Recently under the National Rural Employment Guarantee Programme (NREGP) the government has taken up the task of providing 100 days of gainful employment to a family whose members are willing to do the work of unskilled labour.



6.4 Work under NREGP going on

As there is a provision of demanding job by such job-card holders and the government has to provide the job within 15 days of such demand, the present structure will be able to ensure food security and contain migration to other districts. The projects have been

taken up in consultation with community and is being implemented in close co-ordination with self-help groups (SHG) and other community-based organizations (CBO). This is the first scheme in which entitlement of a villager has been addressed. In Bankura, the schemes has been launched with the twin objective of providing gainful employment as well as creation of assets. Since water is the central issue in the district, re-excavation of ponds, construction of checkdams and afforestation has been given priority.

6.2.6 Antodaya Anna Yojana & Annapurna Yojana :

The two schemes started functioning towards the end of the year 2001 with the aim to provide food security to the families facing food crisis so that starvation is avoided. The Annapurna Yojana aims at offering 10

6.14 Block and Municipality-wise number of beneficiaries under Antyodaya Anna Yojana & Annapurna Anna Yojana

Block/Municipality	No. of families covered by Antyodaya Anna Yojana	Persons covered by Annapurna Yojana
Bankura-I	4538	93
Bankura-II	5301	118
Chhatna	9094	177
Saltora	6317	123
Mejhia	3532	77
Barjora	7883	160
Gangajalghati	7302	158
Onda	10193	215
Indpur	6784	138
Khatra	4797	100
Hirbandh	3938	70
Ranibandh	5961	144
Raipur	7496	172
Sarenga	4563	129
Simlapal	5914	143
Taldangra	5694	127
Bishnupur	6146	129
Joypur	6080	136
Kotulpur	6896	158
Sonamukhi	6361	138
Patrasayer	7314	147
Indus	6499	149
Bankura Municipality	4639	163
Bishnupur Municipality	2268	86
Sonamukhi Municipality	1080	46
Grand Total	146590	3296

Source:- Office of the District Panchayat & Rural Development Officer, Bankura

Kgs. of food-grains free of cost per month to each identified indigent destitute of the age of 65 years and above and not being covered under old age pension scheme. The Antyodaya Anna Yojana covers other below poverty line (BPL) families, in which each family get 35 kgs. of foodgrain per month at a subsidized rate, the rate of rice being Rs. 3.00 per Kg. and the rate of wheat, Rs. 2.00 per Kg. A thorough enquiry has been specially conducted to ensure that the poorest of the poor get the priority. People living in backward mouza have been given special attention while selection.

6.3 Migration :

In Bankura, migration has been the single factor which enhances vulnerability of community to a very high degree. Though there is no authentic data available, migration has been observed in following blocks of Bankura district – Bankura-I, Chhatna, Saltora, Indpur,

Ranibandh, Hirbandh, Khatra, Raipur, Sarenga. A sample survey has been done to understand the nature and cause of migration in these blocks. Firstly a sample survey was conducted at Bankura bus stand to identify the areas, demographic profile of the migrants and the areas to which they migrate. Based on the findings some of the areas with high incidence of migration were selected for detailed community level survey. Table 6.15 and Table 6.16 give the findings of the study. As can be seen, on an average, 67.3 percent families migrate from these vulnerable blocks. The range varies from 54.5 percent to 85.4 percent.

Another study conducted during the micro-watershed planning under Rashtriya Sam Vikas Yojana (RSVY) shows that 23 percent families across all the socio-economic strata from the underprivileged blocks located in western and southern Bankura migrate to other areas for some period or other.

A dialogue with a migrant family at Bankura Bus Stand

“Since how long are you going to ‘Poob’ for search of employment?”¹

—“Look at our baby”, Rabi pointed to a three months old baby sleeping on the floor of the passenger’s retiring hall (a place with concrete roof but open on all side), “As our ‘beta’ is accompanying us, I used to accompany my parents in the same manner.” This is how Rabi explains his period of migration, his wife giving a patient hearing to it.

It was in the month of January with chilling cold. “Makar Parab aschhe na. Sei janya ato jar”, (The Poush-Sankranti festival is at the door. That’s why so much of cold) substantiates Rabi’s wife, paying a helpless but sympathetic look at the baby, with a deep sigh.

* * * * *

“Whom have you left at home to take care of your household?”

—“My old mother and six years old daughter. She can’t move much, so Sulekha, our youngest daughter is left behind to take care of her”, replied Jiten, a 35 years old landless from Hirbandh block of Bankura district.

“How could they manage there, your mother is so old and daughter is so tender aged?”

—“My daughter can cook rice. A little bit of green leafy vegetable in addition is enough for them. We have taken some loan from the mahajan (money-lender) before leaving our home and made arrangement for a month for them”, added Jiten in a tone of desperation.

“What about if any of them fall sick?”

—“We have entrusted one of our neighbour, who is my good friend since I attended the primary school with him. I have requested our local ‘daktarbabu’ to give whatever medicines are required. We pay all the dues to him if it happens. He is a very kindhearted man. He has been looking after all of us for a long time. We will pay the mahajan also. Otherwise he will not help us next time.”

“How much do you pay as interest?”

—“Rs.10/- per 100/- per month. It’s a bit high. But who else is there to help us?”

* * * * *

6.3.1 Characteristics of migration from Bankura :

Migration in this district is basically a distress sale of labour outside his/her own place of living for a period of 15 day to 6 months (even in a few cases for eight months) in a year. It is a very common phenomenon to the socio-economically marginalised, mostly SC and ST population of the district. It has the following common characteristics:

- The migrant leaves his/her own place for search of employment elsewhere (mostly outside the

district)

- Have to stay there continuously for the period
- Duration is 15 days to 6 months in a year and more or less on regular basis (which is influencing or affecting his/her family, social life).
- The employment is mostly in unorganised sector as labourers with individual owners as provider of work. Example:- agriculture work, labourer in brick-field, construction site etc.

In addition, distress sale of assets like livestock and

homestead assets, land mortgage, indebtedness to informal lending source (mahajan) etc. is part of the vicious cycle.

Period of migration :

- At least twice in a year, in general — kharif transplanting and harvesting. The duration is from one and half months to two months in a year.
- Three to four times for the landless and extremely marginalised—kharif transplanting and harvest, winter crop (potato) cultivation and harvest, summer paddy (Boro) transplantation and harvest.

In this case the duration is four to six months in a year.

Reasons for migration :

There are several reasons for migration. But the most common reason is to meet the food deficit in the families. Sample survey shows that around 84 percent migration is to meet the food crisis, 10 percent migrate to meet other family need, 4 percent migrate as additional working hand in the families, 1-2 percent have to migrate if there is serious natural calamity and the most common calamity in the area is drought.

Table 6.15 Findings on migration in Bankura

Blocks	Number of hamlets Covered	Total family in the hamlets	Total families migrating	Number of member migrating from each family						Reason for migration						
				1 to 2 members for the family		Majority from the family		All members from the family		To meet food deficit		To meet other need		Additional working in member in family		Others reasons (natural calamity etc.)
				No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Chhatna 6.79	11	595	324	120	37.03	141	43.51	63	19.44	297	91.66	2	0.6	3	0.9	22
Indpur	7	213	182	42	23.07	109	59.89	31	17.03	156	85.71	15	8.24	11	6.04	—
Saltora	9	616	468	99	21.15	177	37.82	192	41.02	367	78.41	75	16.02	26	5.5	—
Ranibandh	10	776	559	402	71.91	110	19.67	47	8.40	559	100	—	—	—	—	—
Hirbandh	18	509	291	286	92.09	16	5.49	7	2.40	291	100	—	—	—	—	22
Total		2709		931	51.04	553	30.31	340	18.64	1670	91.55	92	5.04	40		1.20

Source : Office of the District Magistrate, Bankura

Table 6.16 Findings on migration in Bankura

Block	Number of hamlets covered	Total family in the hamlets	Number of families migrating							
			15 days to 2 months		2 to 4 months		4 to 6 months		Total families migrating	
			No.	%	No.	%	No.	%	No.	%
Chhatna	11	595	177	54.62	89	27.46	58	17.90	324	54.45
Indpur	7	213	76	41.75	82	45.05	24	17.73	182	85.44
Saltora	9	616	366	78.20	95	13.86	7	1.49	468	75.97
Ranibandh	10	776	559	100	-	-	-	-	559	72.03
Hirbandh	18	509	273	93.81	12	4.12	6	2.06	291	57.17
Total :		2709	1468	80.46	284	15.57	108	5.92	1824	67.33

Source : Office of the District Magistrate, Bankura

Engagement and Remuneration :

Place of engagement:

Mostly different Blocks of Burdwan and Hooghly

districts. In some cases Gujarat & Maharashtra as construction labour.

For Burdwan and Hooghly districts, wage & other facilities are as follows:

- Wage is Rs. 38/- to Rs. 42/- in cash and 2 kgs. of rice per day.
- Temporary shelter or shelter-construction materials (bamboo, straw etc) and fuel are provided by the employer.
- One side fare is often provided during kharif paddy transplantation.
- In cases of nuclear family, full family migrate with infant, children.
- Usually they form a group from the same community or from the neighbouring communities; the relatives from different places are also there.

Status & background at their own place :

In case of construction labour migrating Gujarat & Maharashtra, wage & other facilities are as follows:

- Wage is Rs. 100/- to Rs. 120/- per day with over time facility of Rs. 10/- per hour.
- No other facilities are provided.
- In case of illness during the period, treatment is done at own cost, mostly with own arrangement.
- Most of them are migrating by generations—two generation members are common in the groups.
- Most of them are not covered by the poverty alleviation programme.
- Except a few, they are not members of any self-help group (as their stay in the villages is not continuous).

Involvement of family members :

- Migration is mostly with family members, leaving behind one or two members to take care of the household, domestic cattle (if any).

A few respondent said that they received some support under the schemes of District Rural Development Cell years back, but whatever amount was received after adjustment of the subsidy with loan amount was not sufficient enough to take up any viable income generating venture.

6.3.2 Effect of migration :

How life goes on

Kalpana Roy, 13 years old girl belongs to Katagora village under Purulia District, neighbouring Pirologoria village of Metyala G.P. of Bankura District.

She was living with his seven years old brother, a pair of goats and few domestic birds. Her father Sudhir Roy along with her mother, one sister and youngest brother had gone for search of some employment in the agricultural field of Burdwan or Hooghly district. She didn't know where they had gone, but knew that they may come back in the first or second week of Jaistha. This arrangement would go on 4-5 times in a year. When she was a very tender child, she accompanied them, but now she had grown enough to take care of the house, brother, a younger brother and a few other assets. Her second sister, who is around ten years old, had gone with her parents to look after her youngest brother there, when their parents will be engaged in field-work.

Arrangement for some food-grain was made by their father when they left and he had also requested their neighbour to help them, if they faced any problem.

Sometimes the domestic animals behave like wild, birds try to be free in the open nature, they are lost temporarily, or engage themselves in grazing with utmost sincerity behind some bush.

It was a scorching hot day in the month of May, and as one goat was not being found, both sister and brother went searching for it in the sun. There were not much food-grain in the house and may be they didn't get their full meal. Both of them were blaming each other for not shouldering their responsibility properly. Suddenly Kalpana couldn't control herself, she went inside the room, pour the remaining

quantity of kerosene oil left in the house and set herself on fire. Seeing this, her little brother was at a loss, shouting for help and running here and there around the house. When their neighbors reached within few minutes, Kalpana was found burnt almost fully. She was brought to Bankura Medical College and Hospital, but was beyond all treatment.

The brother didn't know where exactly their parents had gone to earn some means of livelihood for them. The neighbours didn't know. After query and searching for two days they were found in a distant village of Hooghly district.

When Sudhir and his family came back they even couldn't find the local guardian.

This case may be one of the worst effects of migration, but stress & strain, psychological trauma, agony, uncertainly etc. are always there with the left over members in the family particularly to the tender children and aged persons-old, widows etc.

In many cases, mainly during pre-monsoon and monsoon migration, damage to the household due to high velocity or cyclonic wind, along with rainfall cause moderate to severe damage to their houses. Often the roof is blown away, walls get eroded, leaking and leaching of water damage domestic utilities including food grain, floor of the house etc. So after their return, a major share of their earning is spent for the repairing of houses.

Migrating families are resource-poor. They can't make optimum use of available resources. They cannot think of taking up even activities like horticulture or rearing of domestic cattle etc. They are forced to do 'once transplanting and once harvesting' paddy cultivation with no care in between (as they migrate in between). It can be assumed that they are able to tap only 25-40 percent of the resources available with them in the form of land, livestock etc.

Health care :

Health care is grossly affected particularly to the expectant and nourishing mothers and children. Essential and routine health services like antenatal & post-natal care, immunisation, nutritional supplementation etc. are grossly neglected. Delivery in the working field and migration even with a seven days old baby has also been reported during the survey.

Moreover sexual exploitation to the women & adolescent girls in the whole journey of migration is not very

uncommon which is a serious issue in the transmission of sexually transmitted disease & HIV.

Reports of serious illness, death has also been observed during the survey.

Education :

Education to the children is seriously affected for the migrating families due to obvious reason of irregularity. Normally children accompanying their parents till the age of 8-10 years. Later they become over-aged for a Primary school.

Other issues :

Very often migrants have to take loan from the money-lenders for temporary arrangement for the left over family members, travelling cost etc. and on return they have to repay the money-lender with lump sum interest. Sometimes they mortgage household utilities and find it difficult to recover it since the loan is given normally at a very high rate of interest.

In spite of all the odds it is very much heart-rendering to hear from the aged, "we are still surviving only because of Hooghly and Burdwan; otherwise we would have died in hunger. Whenever we get some kind of employment opportunity (working in the agriculture field) in our area, we have to compromise even with less than half payment, as we are much larger in number and the opportunities are few."

Is there a remedy ?

Natural resources in and around the area and their utilisation :

From the sample survey, on an average, the migrating families are found to be having 1.5 to 2.25 bighas of

land. If we consider the total land in the migrating hamlet on an average per family land works out to be 5-6 bighas. On an average wasteland per family is 1 to 2.5 bighas. There is forest land in migrating hamlets and per family availability of the same works out to be 1 to 10 bighas.

Whatever the resources are there within their access and control are not optimally used due to the following reasons:-

- i) Lack of irrigation water, lack of knowledge of alternative cropping practices, access to know-how and inputs, poor investment capacity.
- ii) Domestic cattle-rearing is not perceived as a regular income generating activity but is looked upon as buffer to meet a sudden crisis in the family

– illness, and other social need. Risk coverage, market knowledge are also limited.

Their ‘thought’ about alternatives & future :

On discussion at length the followings suggestions came out:

1. Creation of irrigation facilities in their respective areas can increase possibility of two crops, which will generate additional employment each year.
2. Animal husbandry can be the other option, though they have doubts on its viability due to a numbers of associated risk factors.
3. Lack of investment capacity is also a major hindrance to alternative options of livelihood.

Kajal - the other name of survival strategy

Kajal Murmu, a woman of Araboni village under Teghori Gram-Panchayat of Chhatna Block could fight against many odds of poverty including migration. From a nowhere situation at one time, she is now owner of three bighas of land, a pair of bullock, five pigs, thirty poultry birds, a bank account etc. On the top of it, she is continuing education of her three daughters in school (two are in high school) and has bought a cycle for them.

The only tragedy she could not get over is the death of her husband in 1998. After that she had to fight her battle for survival alone, but never accepted defeat.

The different milestones in Kajal’s life and livelihood is stated below :-

1985 - Kajal, as 15 years old girl, became a member of the migrating group consisting her father, elder brother etc. They could migrate for 8 - 10 months in a year.

1988 - Being introduced for some period while in migration, Kajal got married with Thakurdas Murmu of Araboni village. That was the only change in her life but livelihood sources remained same, change of hand from father and elder brother to husband and his family. She used to get Rs. 20/- per day and one Kg. of rice, working as migratory labour at Burdwan district. Their first daughter was born 3 years after marriage and other two daughters in succession within two and half years. With only 2 bighas of high land as productive resource their life became tougher with the introduction of three new members in their family.

1995 - Kajal went to Burdwan leaving the eldest daughter at the custody of a neighbour. However trouble didn’t leave them, their youngest daughter fell seriously ill at their working place, Kajal returned back without completing her term for that season. Here she found the good neighbour has engaged her four and half years old daughter for cattle grazing. The scene only increased the severity of pain of helplessness, her only pray to God was for ‘two square meals’ in a day for all the family members.

1997 - LWS-India came into their village and urged them for self-dependence and self-reliance from within.

1998 - They got some training on situation-specific improved agricultural practices organised by LWS-India, followed by some improved seed and fertilizer assistance to cultivate in those 2 bighas of agricultural land. But the most unfortunate event happened in Kajal's life when her husband died in the month of September after suffering from fever for three days. Helpless Kajal went to Hooghly with her 3 daughters to work as labourer for potato cultivation. She earned some money, but on returning back found her house grossly damaged, roofing materials were blown away by the stormy wind of October. She took loan amounting Rs. 500/- from the 'Village Samity' and could repair her house to the minimal extent.

1999 - She underwent some agricultural training sessions, received some input assistance (seeds, fertilizer) for improved paddy cultivation. She managed the year by the following means:- six months from kharif paddy, potato and mustard crop supported her one month, two months from loan from money-lender and three months by migration. She had to work as 'bonded labour' in the field of money-lender for six months for the loan she received.

2000 - Kajal took two bighas of land from a person of Tisra village for 'share cropping'. This year she could manage food-grain for seven months from paddy cultivation, three months as labourer in a pond re-excavation work, weeding in paddy fields etc., one month from potato, mustard cultivation and one month by loan from money-lender. She started vegetable cultivation this year, consumed optimally in the family and sold some quantity also.

2001 - Kajal could manage food-grain for nine months from paddy cultivation in own land and share cropping. Cultivated some newer crop like pumpkin, oilseed (linseed), potato etc. She earned Rs. 500/- by selling pumpkin, Rs. 1000/- by selling linseed and Rs. 700/- by selling potato. Two months were managed as daily labourer and support for one month came from 'Grain Bank', as grain bank was established in their village. She didn't migrate.

2002 - She purchased one bigha of land with saving and selling a pair of ear-ring. Land development activities were taken up with support and assistance from 'Village Samity'. She could sell pumpkin amounting Rs. 3000/- apart from other vegetable cultivation and paddy amounting Rs. 1000/-. Bought first cycle for the daughters who are reading in a High School, 5 Kms. away from their village.

2003 - Kajal became free from the agony of migration and food insecurity.

2004 - She repaid all the dues to 'Village Samity' and self-help group. She had also created some assets.

Intervention to reduce migration in the District

Long term measures:

Avenues to utilize natural and human resource are to be found out to generate additional livelihood. Each family needs to be equipped with knowledge of alternative practices in agriculture, horticulture, animal husbandry and other income generation opportunities to reduce the risk and vulnerability. Each family having land must have access to some sort of irrigation resources. Five percent irrigation models may be tried.

Everyone should have access to credit facilities (preferably from community-based organization (CBO) or group managed fund) in the form of kinds like food-

grain, or cash on soft interest but greater accountability to the group / CBO.

As indicated in the case study above, a migrating family with barely 2 bigha of land can be made self sustaining by a mix of measures such as creation of irrigation source, training in production of attractive and more remunerative crops including cash-crops, grain bank and capital provided by the common resource of the community band organization .

Short term measures:

Targetted implementation of employment generation and employment guarantee scheme can be a fruitful

measure to curb the migration, as the lack of food security is the main reason behind migration. The district has been continuously striving to completely stop migration by implementation of schemes like National Food For Work Programme (NFFWP) and National Rural Employment Guarantee Programme (NREGP). Under NREGP, any unskilled person can get the work by applying to the appropriate authority, who will provide work within fifteen days of application. This provision will help people not to go beyond the district in search of livelihood. In fact, there is evidence that migration from some pockets of Ranibandh block was arrested upto fifty percent by timely implementation of NFFWP schemes and interventions under the microwatershed programme. However, if other agriculture inputs and training are also provided along with the creation of water harvesting structures, the added income may help in stopping migration completely.

6.4 Housing :

Right to shelter is one of the basic human rights. The welfare of the community largely depends on the conditions of living. Absence or poor condition of living is a serious deprivation. So, how people are safeguarded against the problem of homelessness is a major issue to be considered. Census, 2001 published a detail account of the living condition of the people of Bankura. We have calculated the relative positions of different blocks in the districts by taking the percentage of “Good+Livable” households. The preliminary analysis of our study shows that the condition of housing is best at Sarenga, Raipur and Onda. The condition is very bad in Beliatore and Simlupal. The conditions of other blocks are lying in between. Providing dwelling house to sabar community is another area of challenge. Issues related to behavioural changes also needs to be addressed while handling their requirement of shelter.

Table 6.17 Houses provided to rural families under Government sponsored schemes

Scheme	Year	Category	House completed		
			SC	ST	Others
Pradhanmantri Gramoday Yojana (Grameen Awaas)	2003-'04	New Construction	43	28	47
		Up-gradation	15	6	13
	2004-'05	New Construction	120	41	104
		Up-gradation	76	27	61
	2005-'06	New Construction	7	2	6
		Up-gradation	7	2	6
Indira Awaas Yojana	2003-'04	New Construction	947	336	817
		Up-gradation	464	164	394
	2004-'05	New Construction	1626	629	1424
		Up-gradation	867	293	664
	2005-'06	New Construction	1650	555	1448
		Up-gradation	807	268	709

Source:- Bankura Zilla Parishad

6.5 Crime & Violence :

Protection against crime and violence is probably the most important issue for human security. How well people are protected from threats of crime is a major issue. For opportunities to be retained, safety against violence is required. One of the major problem with crime data is its reliability. The only source is the government figures. The main problem with government data is the under-reporting of incidences.

Due to various legal hassles and the prevailing fear among the masses about the government machinery, common people avoid reporting to Police Station (PS) unless and until the incidence is grave.

In case of Bankura district, we have Police Station-wise information. Among Police Stations, Bankura PS has been most crime-prone over the years. Offences against women, theft and other crimes are prevalent in Bankura PS. But most significant result comes out, if we look at

offences reported, cases tried, persons convicted for different classes of crimes in the district of Bankura over the years. The most interesting part is the sudden emergence of minor crimes after 1999. The figure of cases reported, cases tried and persons convicted under minor crime have jumped to 2896, 1829 and 1989 respectively in 2000 from zero in 1999. This seems quite abnormal and lacks rationality. Similarly crime against

women is also fairly large. Another alarming thing is the proportion of people finally convicted involved in crimes against women. In 2002, only 2 persons were convicted against 208 cases reported. Beside this, however, crime figures of Bankura in 2005 shows that the situation is not worse in the district compared to the other districts in West Bengal. In fact, in most of the cases the situation is better than the other parts of the state.

Table 6.18 District-wise crime figure during 2005

Sl No	District	Murder	Culpable homicide	Dacoity	Robbery	Burglary	Theft	Riots	Crime against women	Crime against children	Crime against SC by non-SC	Crime against ST by non-ST	Police personnel involved in crime
1	Bankura	53	10	25	28	13	280	72	335	0	2	2	0
2	Birbhum	47	16	11	31	15	231	189	400	0	0	0	0
3	Burdwan	137	28	16	33	44	690	278	1003	0	4	9	0
4	Coochbehar	33	6	1	3	3	119	20	423	10	0	0	0
5	Darjeeling	50	39	3	7	4	333	23	197	1	1	0	0
6	Dakshin Dinajpur	27	15	2	9	5	100	24	280	20	0	0	0
7	Howrah	81	18	9	35	11	626	141	633	3	0	0	1
8	Howrah GRP	7	2	1	1	0	281	12	11	3	0	0	0
9	Hooghly	58	23	9	21	64	469	337	717	0	1	0	1
10	Jalpaiguri	67	42	9	20	40	712	53	564	2	0	0	0
11	Khargpur GRP	2	2	2	2	0	100	3	6	0	0	0	1
12	Malda	61	21	7	18	20	335	64	591	24	0	0	0
13	Mururshidabad	115	46	7	18	17	536	139	1362	21	0	0	0
14	Nadia	100	12	11	16	2	772	233	1067	4	0	0	0
15	North 24 Paraganas	168	38	18	39	78	1564	203	1604	16	1	1	1
16	Paschim Midnapore	79	14	25	27	35	353	184	574	0	1	0	1
17	Purba Midnapore	42	17	7	8	8	219	155	555	6	1	0	0
18	Purulia	61	9	3	14	4	143	43	224	0	1	0	0
19	South 24 Paraganas	131	39	17	21	231	690	214	1443	2	0	0	1
20	Sealdah GRP	20	2	0	4	0	188	3	15	0	0	0	0
21	Siliguri GRP	2	1	1	1	0	98	0	4	1	0	0	0
22	Uttar Dinajpur	49	13	11	16	9	256	30	325	4	0	0	0

Source: Office of the Superintendent of Police, Bankura

The crime situation in Bankura also reflects to some extent, the socio-economic strain that the district is currently having. Increase in number of minor crimes may be one indication of this.

In Bankura, dowry has always been a very common problem in marriages. This problem is present irrespective of class, income status and most importantly

the educational level of the families involved. However, crime records do not project the problem in this case. This is mostly due to poor reportage.

Legal Aid Clinic and Lok Adalat are being organized regularly in this district. These needs to be continued in a bigger way because of the prevailing poverty in the district.

6.6 Debt burden :

Sources of funding are an important issue for the smooth functioning of the production process. Debt for unproductive purposes are, however, also vital in this context. It is very much desired that the poor producers are not exploited to obtain basic capital to carry on production. Their interests should be protected and the terms of loan should remain easy and flexible as far as feasible. Availability of loans/credits on easy repayment term for both productive and non-productive purposes is a pre-requisite for internal security. In West Bengal, a large portion of source of credit is still informal, specially in rural areas. The terms and conditions of the credit from informal sources are very harsh (In Bankura an interest rate of 200 percent per annum is observed in certain villages!). This adds to the vulnerability of a community. Hence an even spread of formal sources of credit is essential to remove this kind of vulnerability.

From the analysis of data available in District Credit Plan, 2001-02 regarding the block-wise allocation of credit by different Banks, it has been found that the availability of credit is best in Bankura-I and Kotulpur. The situation is grave in Saltora, Ranibandh and Mejhia. Other blocks are in between in terms of position in this respect. In fact the Self Help Group (SHG) movement has contributed a great deal in ameliorating the precarious condition of the poor by providing loan to the members at a reasonable rate of interest. It has acted as a shock absorber for the community at large in periods of misery and starvation.

A peculiar production relation exists in this district which increases vulnerability of rural poor. Due to non-availability of financial resources at proper time, the poor small and marginal farmers are compelled to take loans from local money-lenders on the condition that after the production in his agricultural land, a portion of the produce would go to the money-lenders as principal and interest of the loan. The rates of interest in such cases are generally abnormally high. The value of produce is calculated at a lower rate than the market price with a heavy bias in favour of the money lender. There are examples that producers of Babui take 'dadon' (loan) from the middlemen on such conditions and after the maturity of babui grass, they just hand over their produce. These examples have

proven that rural poverty cannot be reduced unless there is access to credit for the poor at affordable cost.

6.7 Security from natural calamities :

This is probably the most unpredictable factor causing vulnerability in this district. Bankura being an arid area is vulnerable to drought problems. Insufficient rainfall has always been an age-old problem for Bankura. During the months of summer like May and June, due to severe heat, a few pockets of the district notice drought-like situation, which is a common geo-physical nature of the district. Reports of life-losses due to sunstroke are received from some pockets of the district during these months. Incidents of flash-flood, cyclone and hailstorm also take place in the district resulting in agricultural and financial damages. Moreover there are five rainfed rivers in Bankura. The water levels of these rivers often fluctuate and several areas are inundated at their banks. According to the Disaster Management Plan for the year 2005-06 published by the Relief Section, Bankura, the drought-prone blocks of Bankura are Ranibandh, Khatra, Hirbandh, Raipur, Simlapal, Taldangra, Indpur, Saltora, Chhatna, Gangajalghati, Mejhia, Barjora, Bankura-I and Bankura-II. The flood-prone blocks are Mejhia, Barjora, Sonamukhi, Patrasayer and Indus.

During summer, water level sinks down considerably giving rise to acute shortage of water. Scarcity of drinking water forces people to drink polluted water from small collection of water in the wells. Therefore, various water-borne diseases are reported sporadically. During monsoon, water-logging occurs in some regions. Though normally no loss of life occurs, public health problems like water-borne diseases, insect-borne disasters, snake-bites are reported following water logging.

There are another two sources of vulnerability, which are closely related to the natural and environmental degradation:

- (i) Pollution from various newly set-up industries, specially sponge iron industries
- (ii) Attack of wild animals, specially elephants

The district is facing a new environmental degradation problem owing to presence of several hazardous industrial units in different parts of the district, specially

in Bankura Sadar subdivision. On the other hand, the problem regarding invasion of wild elephant in the harvest season is an increasing menace, specially in areas adjacent to forests (mostly in Barjora and Sonamukhi blocks).

6.7.1 Pollution from sponge iron industries :

Since 1999-2000, sponge iron industries were setup in Bankura. Till date quite a few such industries, with plant sizes varying from small to medium, have come into existence. For a resource-starved district as Bankura, this was seen to be a welcome respite.

Considering the production rate according to the prevailing market demand at present, a medium-sized

sponge iron plant would require around 3,00,000 litres of water every day. Extraction of such huge quantity of ground-water is lowering the ground-water level alarmingly in this drought-prone district. Also to control the pollution from these industries, catalytic converter and the electrostatic precipitator (ESP) and a host of other devices are recommended to be used. Some of the plant-owners do not install these devices and flout the pollution-norms to maximize their profits.

This is causing health hazards upon the people and animals in the locality and has an adverse impact on the productivity of paddy and other crops. This has enhanced the vulnerability of the people in the area.

Table 6.19 Damage due to attack of wild elephants

Year	2005-2006
Human Casualty	6
Staff Injury	9 including 3 Forest Deptt. employees
Staff Casualty	Nil
Crop Damage	959.3 Hec.
Hut Damage	167
Death of elephant	1

Source:- Three Divisional Forest Offices, Bankura

6.7.2 Attack of wild elephants :

From the last few years, the areas of Barjora and Sonamukhi Block, which are adjacent to forest, are facing the attack of wild elephants, which come from the Dalma range of Chhotanagpur plateau, mainly because of the non-availability of food within their habitat. As this takes place during the harvesting season, damage of crops occurs coupled with loss of lives by the attack of the elephants.

Recently crops like ginger, turmeric etc. are being promoted in these areas which cannot be damaged by elephants.

6.8 Coverage of different social security schemes :

In this section we will try to measure the situation of the existing safety nets for the vulnerable population of the district. There are several schemes at present operating at the grass root level. We will discuss some of these schemes briefly.

(A) National Old Age Pension Scheme (NOAPS)

: Under this scheme, people above the age group of 65 years, are entitled to receive Rs.100 per month, if the person does not have any other

Table 6.20 Population in the age group of 60 and above (all number in thousand)

Rural						Urban					
Male		Female		Total		Male		Female		Total	
Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
74.55.66	86.0	6.85	160.5	6.24	7.2	6.0	8.0	7.10	15.2	6.54	

Source:- Census, 1991

source of income and the family belongs to the below poverty line (BPL) category. At present 42308 persons are getting the benefit of the scheme, which is helping them to sustain their livelihood.

(B) National Family Benefit Scheme (NFBS) :

The target group under this scheme is of BPL category. If the main earning member of such a family dies, the family receives a onetime help of

Rs.10000/-. 319 families received the benefit during 2005-2006, which helped them to come out of the financial crisis due to sudden loss of the sole earning member of the family.

(C) National Maternity Benefit Scheme (NMBS)

: Here also the target group is BPL category. Under this scheme, a pregnant woman is entitled to obtain a lump sum amount of Rs.500 (one time) for her first two pregnancies.

Table 6.21 Coverage under old age, widow and disability pension programme

Sl. No.	Name of th Block/Municipality	Number of beneficiaries covered			
		National Old Age Pension Scheme	Old age pension	Widow pension	Disability pension
1	Bankura-I	1264	50	21	11
2	Bankura-II	1609	69	26	18
3	Chhatna	2360	93	30	20
4	Saltora	1621	67	22	14
5	Mejia	974	42	14	9
6	Gangajalghati	2217	90	27	19
7	Barjora	2463	99	31	20
8	Onda	2812	121	38	25
9	Indpur	1781	75	25	16
10	Taldangra	1670	72	20	14
11	Simlapal	1672	72	21	14
12	Khatra	1344	56	18	12
13	Hirbundh	987	40	13	8
14	Raipur	2127	77	22	16
15	Sarenga	1258	58	17	11
16	Ranibandh	1485	56	19	12
17	Bishnupur	1688	76	23	14
18	Joypur	1806	77	24	16
19	Kotulpur	2173	92	27	19
20	Sonamukhi	1793	77	24	14
21	Patrasayer	2077	89	22	17
22	Indua	2017	81	27	18
23	Bankura Municipality	1810	78	40	24
24	Bishnupur Municipality	900	34	12	7
25	Sonamukhi Municipality	400	15	9	5
Total		42308	1756	572	373

Source:- Offices of the District Panchayat & Rural Development Officer, Bankura & District Social Welfare Officer, Bankura

(D) Pension for fishermen : Under this scheme, 67 number of fisherman above 60 years of age and having no other source of financial help is getting Rs.300 per month.

(E) Pension for artisan : 498 artisans above 60 years of age and having no regular source of

income are getting financial help are provided Rs.1200 each month.

(F) Tribal pension : About 4458 number of tribal persons of 14 ITDP Blocks, who are above 60 years of age and of BPL category, are getting monthly pension of Rs. 500 per month.

Table 6.22 Block-wise coverage under tribal pension scheme

Hir-bandh	Raipur	Sarenga	Simlapal	Onda	Indpur	Taldangra	Khatra	Saltora	Ganga-jalghati	Ban-kura-I	Ban-kura-II	Rani-bandh	Chhatna	Total
428	488	361	340	139	124	172	352	300	78	62	25	780	809	4458

Source: Office of the Project Officer-cum-District Welfare Officer, Bankura

(G) Old Age Pension:- In the scheme a destitute old age person gets an amount of Rs. 500 per month, the conditions of getting the benefit is similar to that of NOAPS. In the district 1756 persons are presently covered by the programme.

(H) Disability Pension :- Any physically or mentally

handicapped person, incapable of participating in productive activities, is entitled to obtain Rs.400 under this scheme. The beneficiary should be a permanent resident of the state for at least 10 years. Now 373 disabled persons are getting the benefit of the pension in the district.

Table 6.23 Category-wise disabled persons in the age group of 0+ to 18+

OH	VI	MR	CP	HI	MD	AUT	LD	TOTAL
3298	1450	2094	860	2196	704	29	447	11078
30	13	19	8	20	6	0	4	

NB:- OH:- Orthopaedically handicapped, HI:- Hearing impaired, VI:- Visually impaired, MD:-Multiple disability, MR:- mental retardation, AUT:- Autisim, CP:- Cerebral Palsy, LD:- Learning disability

Source: Office of the District Programme Officer, Sarba Siksha Abhijan, Bankura

(I) Widow Pension:- This scheme is providing financial assistance of Rs.500 per month per head to the 572 number of destitute widows.

(J) Provident Fund for Landless Agricultural Labourers (PROFLAL) :- Every landless agricultural labourer under the age group of 18 to 50 years are eligible to get benefit under this scheme. For every ten rupees deposited per month to the local Panchayat office, the government gives a matching grant of another ten rupees and the total amount, along with the interest, is accumulated amount with due interest from government. 107451 landless agricultural labourers have so far been covered under the programme.

(K) Balika Samriddhi Yojana:- It is the scheme for awarding gift of Rs. 500/- (Rupees Five Hundred only) on birth of girl child to her mother to ensure welcome of the new-comers by birth. The scheme has been implementing to the girl child who born after august, 1997. A few supportive actions are also included in the scheme. Gift of Rs. 500/- in form of an instrument like KVP/ NSC has been given to 9268 number of beneficiaries.

As can be seen the coverage of these schemes is fairly low and is insufficient to reduce vulnerability of people at large.

6.9 Special vulnerable and stress-prone groups :

In the process of development, it is often found that some particular groups of people remain lagging behind. They require special attention because of the disability associated with their existence. In Bankura also we have figured out few groups, which may be termed vulnerable. These are

- (i) Child labour
- (ii) Lepers
- (iii) Sabar community

6.9.1 Child labour :

Bankura, like other parts of the country, is not free from the menace of child labour, as is reflected from the outcome of a survey conducted in 2005, which shows that a total of 21,634 number of children were found assisting in hazardous and non-hazardous industries.

Following factors seem to be responsible for child labour :

1. Adult unemployment
2. Large family size
3. Parents do not see any advantage in their children getting educated as they find educated unemployed persons in the society
4. Parents stake the future of their children for immediate livelihood. Being illiterate themselves, they do not perceive the long-term benefits of education. They are also ignorant about the consequences of children being engaged in work.
5. Poor learning achievement among children
6. Social acceptance of child labour and lack of critical consciousness

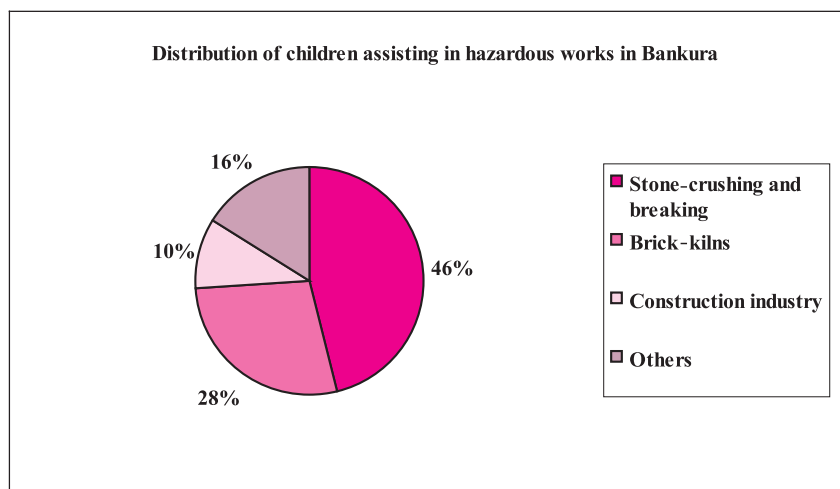
Though 16 hazardous industries have been identified in this district in which children are engaged, their concentration is high in industries like stone-crushing and breaking, brick-kilns, and construction industries. On the other hand, out of eight non-hazardous occupations identified, they are mostly seen in domestic work, working in hotels and restaurants, working in different shops and establishments, small cottage industries etc.

In keeping with the National Child Labour Policy, 1987 and aim of the State Government to eliminate child labour in hazardous industries and gradually moving to the complete elimination of child labour as well as the rehabilitation and social integration of children released from the worst fronts of child labour, the following objectives have been set up for the district to address the problem:-

Table 6.24 Block & Municipality-wise number of child labour

Sl. No.	Block/ Municipality	Hazardous work			Non-hazardous works			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Bankura-I	5	0	5	349	201	550	354	201	555
2	Bankura-II	222	126	348	315	159	474	537	285	822
3	Indpur	19	8	27	302	280	582	321	288	609
4	Saltora	295	328	623	1097	987	2084	1392	1315	2707
5	Chhatna	82	66	148	510	466	976	592	532	1124
6	Mejia	63	71	134	98	38	136	161	109	270
7	Gangajalghati	111	78	189	754	759	1513	865	837	1702
8	Barjora	170	53	223	711	670	1381	881	723	1604
9	Bishnupur	10	5	15	228	172	400	238	177	415
10	Kotulpur	61	0	61	216	61	277	277	61	338
11	Joypur	65	3	68	430	279	709	495	282	777
12	Indas	88	9	97	571	333	904	659	342	1001
13	Sonamukhi	97	32	129	962	900	1862	1059	932	1991
14	Patrasayer	104	11	115	984	662	1646	1088	673	1761
15	Onda	68	38	106	115	45	160	183	83	266
16	Khatra	106	62	168	287	227	514	393	289	682
17	Ranibandh	228	301	529	200	217	417	428	518	946
18	Taldangra	58	2	60	91	29	120	149	31	180
19	Simlapal	124	72	196	124	51	175	248	123	371
20	Sarenga	74	50	124	161	73	234	235	123	358
21	Raipur	24	2	26	325	181	506	349	183	532
22	Hirbandh	168	235	403	73	134	207	241	369	610
23	Bankura Mun.	251	178	429	287	341	628	538	519	1057
24	Bishnupur Mun.	174	36	210	160	226	386	334	262	596
25	Sonamukhi Mun.	94	31	125	100	135	235	194	166	360
	TOTAL	2761	1797	4558	9450	7626	17076	12211	9423	21634

Source:- Office of the District Magistrate, Bankura



Pie chart 6.32 Distribution of children assisting in hazardous works in Bankura

(Source:- Office of the District Magistrate, Bankura)

1. To withdraw child labour from hazardous occupations and process primarily and to rehabilitate the children by providing formal education (to a standard that would enable them to be reinstated within mainstream education)
2. To establish multi-sectoral linkages to reduce poverty of the household including elimination of migration
3. Enforcement of child labour laws
4. To create critical consciousness in the society about ill-effects of child labour



6.5 Child labour working in stone crusher

The key activities identified for this purpose are as follows:-

1. Operation of NCLP Schools:- Sixty two locations have been identified for setting up of the

schools for child labours, in which the children in the age-group of 9-14 will be taught through a non-formal mode with special approach to vocational training. Each child will also receive an amount of Rs. 100/- monthly, which will support the family. Parent-teacher interaction will be organized to monitor students' academic performance, their standard of health etc.

2. Community level awareness generation:- Sessions will be organized with the parents, key opinion formers, Panchayat representatives on child-right issues with emphasis on ill-effects of child-labour.
3. Diversification of employment opportunities for the families where children are working:- The parents of the children covered under NCLP schools would be linked up with various poverty alleviation and employment generation programme to enhance their family income which will enable the working children to attend the school.

6.9.1 Lepers :

A. Leprosy - the dreaded disease !

“Look at my hands - with these hands I could draw beautiful pictures. I was famous for the art. We are ‘Chitrakar’ - you know. But now !” This is how Prabir Chitrakar described his past, raising both his hands in a gesture of ‘namaskar’, his eyes full of tears.

Prabir has lost his fingers. He continues, “My wife is a cancer patient. She has been operated. She is now getting ray (radio therapy) from Gobindanagar hospital. Treatment is free. But I find it difficult to bring her to the hospital from Kalyanpur. The transport cost is Rs. 20/-. Doctors are prescribing some medicines, vitamins as she is very sick. How can I manage?”

“I used to cultivate in a patch of land. But I had to sell it for the treatment of my wife. You know I am not supposed to beg. I don’t like it too But destiny has brought me to this stage.”

Prabir Kumar Chitrakar is one of the ‘beggars’ who drop down at Bankura Station every Saturday, early in the morning and with deformity in different parts of their body, go door to door even dragging their ulcerated feet.

* * * * *

“A home away from home”- this corporate ad’ doesn’t bring ‘moments of happiness’ at least to Lakshmi Rakshit, who is an inmate of Kustha (leprosy) colony of Nabajibanpur.

She was a housewife of Jugipara in Bankura town but staying for last seventeen years with ten other deserted women like her in this colony barely 2-3 km. away from her house. On query Lakshmi replied, “Yes, I have my husband, children, but since I came here I have not met them.”

“ How can I.....? “ Lakshmi concluded with a deep sigh. She has accepted the judgement of the greater society.

* * * * *

“Water, water everywhere, but not a drop to drink” - this famous quote appears to be true to the lives of Rajen and sixteen other members of ‘Piardoba Leprosy After Care Colony’, so far the economic access and control is concerned. They have grown an orchard over 173 Acres of land.

We also take care, guard the orchard during fruiting, it is sold on tender, the money is kept in a bank account, this amount is utilized to manage our monthly grant of Rs. 500/- per family.

“ Can’t you market it?”

“How can we? We are fewer in number; we don’t know how to market this huge quantity of product. On few occasion we tried to sell mango locally by vending but found it extremely difficult to ‘push’ the fruits of more than 2000 plants in local market. We were offered very meagre price from the local households.”

“A food processing unit could help us to some extent. As apart from selling the fruits on tender, at least 50 quintals of green mango perished this year, which fell from the trees due to stormy wind. Pickles and other food products could have been made.....”, added Asimbabu, a local School teacher, ex-Pradhan and a well-wisher to these families, whose effort has contributed a lot to the development of this orchard with 2800 mango trees, 400 lichi, 4000 cashew, 2000 guava, 200 ber and 200 grape trees. The land was allotted to this colony for their livelihood.

These are few examples of areas of vulnerability to a section of our society who unfortunately got affected by a disease, which is more of a social problem than medical problem.

In Bankura District there are several settlement established for the leprosy-affected physically challenged persons. The names of the colonies are Nabajibanpur, Kalyanpur, Mangalchandi, Jamunabandh, Piyardoba, Bishnupur etc.

Of these, Nabajibanpur, and Kalyanpur are bigger settlement, having 273 and 200 odd families respectively and the rest having 16 to 50 families.

They are established from twelve to more than fifty years back, to rehabilitate the medically treated and cured leprosy patient who couldn't go back to their families mainly due to social stigma.

Though a lot of work has been done in rural electrification, most of these colonies have no power supply. The aged, deserted mothers of Nabajibanpur Kustha Ashram, take their dinner at 5.00 p.m. as they don't have even a kerosene lamp.

Formation and structure of the families here have its own uniqueness. The older colonies are continuing for generations. In most of the colonies a few extremely vulnerable and mostly aged women neither accompanied by their family members nor finding any partner here are staying alone. But picture of children accompanied or born in the colonies and living healthy life is also common in some of these colonies.

But the wide range of variations in their support and assistance has made life and living condition quite different from one colony to another colony.

Whereas in Nabajibanpur colony, the Department of Social Welfare is providing some sort of support and assistance to all the vulnerable and needy groups like residential and fooding support to invalid persons and students, the residents of other colonies have no such support system.

'Piyardoba Leprosy After Care Colony' with sixteen families as inmate settled in a deserted army camp have access to 173 acre of productive land (orchard), but not much of control over the production, as they only rear and care for the whole asset. They have provision for support in the form of Rs. 500/- per month as grant to each family, but due to paucity of special fund they are

not getting it regularly. Amounts collected from 'tender sale' of the orchard are used for maintaining this monthly grant. Whenever they don't get the grant they receive rice @ 12 Kgs. per adult member per month from the gratuitous relief scheme of the government.

The students of these colonies don't receive any special grant or attention for continuing their education. Residents of Kalyanpur, Mangalchandi colonies (close to Gouripur Leprosy Hospital) are even less fortunate. They receive only 12 Kgs. of rice per month per enlisted disabled member (very often one member in the family). The residents of Kalyanpur colony can only boast of a sizeable number of votes from their colony, but for the support and service, they hardly can cite any bright example. They constitute the major number of the beggars from leprosy colonies in the district.

As far as education is concerned, some parents are managing the educational need of their wards from the earning of begging, a few students are staying at 'Udayan Home', Barrackpur. No special grant for continuing education for the students from these families is available.

At Jamunabandh Colony (Bishnupur) nearly 45 families stay. This colony is looked after by West Bengal Kustha Kalyan Samity. They receive rice of 12 Kgs. per month per adult head. No other support is provided, as stated by the inmates of the colony. They also contribute a substantial number in the beggar group.

B. What can be done :

"Don't look into our disability, look at our ability." This perhaps will be the best approach while handling lepers. Dealing with human values can lift their morale to a considerable high, which is the need of the day.

They have the educated disease-free children who can be socio-economically uplifted, if special effort is extended to them in nurturing their potentiality and providing opportunity. Mostly the unorganised section can be organised into self-help groups (a few have been recently initiated) and involved actively in their own socio-economic development process.

Structured training and support can encourage them to take up some viable venture. Currently most of them are engaged in labour-oriented insecure jobs (rickshaw pulling, unskilled labour etc.). Children from these families have to be treated as special focus group

irrespective of their caste, creed, ethnicity etc. The status of Nabajibampur colony is much better than others, where more than 150 persons are engaged in Bankura Municipality as regular or casual employee. Other employees including school-teachers are also from this colony.

Whatever may be the socio-economic status, residents of all the colonies have expressed lack of minimum medical care in case of illness especially to the persons with physical deformity. Treatment facilities for minor ailments, dressing of wound are lacking and in spite of all the effort not all the health workers feel comfortable to dress a wound of a leprosy patient.

Training a couple of youth in each colonies on the kind of services they need for day-to-day ailments and providing them with required medicines and material can do a lot to their morale and psyche.

6.9.3 Sabar community :

Sabars are the most backward among the tribal population of this district. Many of them are houseless and practically have no ostensible mean of income & live on minor forest produce and income from minor odd jobs. The concentration of Sabar people is high in the blocks of Ranibandh and Raipur. The non-availability of regular source of livelihood, dependence on forest, lack of health and sanitation facilities have kept them away from the mainstream of modern civilization. Providing sources of livelihood for their sustenance is a major and immediate need. However, their assimilation into the social mainstream is a delicate area, which requires finer touch.

Most of these families have no ancestral agricultural land of their own, but some of them have received patta lands from the government. However, traditional agricultural practice on the unproductive soil of these patta lands has not been able to improve their level of income and remove their sufferings. At the time of sowing of paddy, they primarily cultivate their own land, which a few families possess, and work as agricultural labourers on the lands of other people. As the availability of job at local areas is not sufficient to feed them, they migrate to the districts of Burdwan and Hooghly to work there. At the time of harvesting also, a sizeable number of Sabar people migrate to those districts for otherwise they would remain jobless and face starvation. However, throughout the year they

collect local forest produces like honey, various fruits, roots etc. either for sale or for own consumption and they also hunt animals like pig, snake, bird, frog etc. in local forests to consume them.

Their dwelling condition is also far from satisfactory with some of them even living in forest areas in scattered hamlets (locally called 'tola'). The literacy rate amongst the Sabars is very low with about 2.42 percent of them educated. Lack of educational facilities at their doorstep coupled with lack of interest on their part and frequent migration to neighbouring districts for livelihood has become responsible for the poor educational coverage. A survey on educational status of Sabar children was conducted (results shown in table 6.25) and the results are quite alarming.

Inadequate drinking water supply, lack of health and family welfare services at their doorstep, lack of communication facilities have all contributed to their remaining distant and aloof from mainstream of modern civilisation.

A concerted effort for making provision of irrigation at micro-level, introduction of horticulture at otherwise unproductive small patches of patta lands, income-generating activities through formation of self-help groups, construction of houses, improvement of educational and health-related infrastructure in Sabar hamlets, if taken up in a bigger way, can improve the quality of their lives and reduce migration.

Under the Rashtriya Sam Vikas Yojana (RSVY), some programme have been proposed for the Sabar community which include:

- i) Houses in cluster form for Sabar community in the model of Indira Awaas Yojana
- ii) Provision for safe drinking water
- iii) Development of land so that it become cultivable and generate income on a sustained basis
- iv) Supports in areas like health and education

The lack of food security of Sabar families has always remained a matter of concern, as most of them have no regular source of income generation. 789 Sabar families have so far been brought under the scope of Antodaya Anna Yojana, with 419 families in Ranibandh and 252 in Raipur Block respectively. A sizeable number of individuals are also getting foodgrains free of cost under the Annapurna Yojana. Unfortunately Sabar

Table 6.25 Report of survey conducted on attainment of primary education by the children of Sabar community

Number of villages surveyed	Number of households surveyed	Total number of children in 5+ to 14+ age-group		Total number of children in 5+ to 14+ age-group attended school		Total of drop-out children in 5+ to 14+ age-group	
		Boys	Girls	Boys	Girls	Boys	Girls
40	528	360	412	99 (28 %)	104 (25 %)	87 (24 %)	79 (19%)

Source:- Office of the District Programme Officer, Sarva Siksha Abhijan, Bankura (The survey was conducted in four blocks Ranibandh, Raipur, Khatra & Hirbandh.)

males are addicted to liquor and the environment at this home is generally not conducive for proper development of their children. An attempt is bring made to bring their children to Ashram hostels and provide them a healthy environment.

Bibliography :

1. M. S. Swaminathan, Food Security and Sustainable Development
2. Amartya Sen, Poverty & Famines, Oxford University Press

Annexure

I

Part-I: Personal Hygiene

Tap water has been identified as the chief source for drinking. Toothpaste is commonly used for brushing teeth. With respect to use of sanitary latrine at home, only 21 percent follow the practice and nearly 73 percent do not have access to sanitary latrine at home. The rate of school based sanitary latrine facility is very poor, nearly 68 percent of the schools do not provide the infrastructure. After defecation, the material commonly used include ash and soap. Nearly, 78 percent of the adolescent girls accessed pond for the purpose of bathing. As part of common practice, 89 percent washed hand before taking food.

Part-II: Physiological Status

About 89 percent of the adolescent girls undergo regular menstruation cycle. For nearly 63 percent, usually the cycle continues for 4-5 days. Only 36 percent of them suffer from pain during the period. 60 percent of them, as traditional method, use cloth for the purpose.

Part-III: Consumption Pattern

52 percent of the adolescent girls received square meal a day. Carbohydrate is the chief dietary source identified in their basic food group, which comprise of cereals, pulses and vegetables. Milk and milk products and animal protein are seldom consumed.

Part-IV: Level of Awareness

On the issue related to age of marriage, 31 percent considered 21 years for male and 57 percent considered 18 years for female as the approved age for marriage, both socially and legally. Only 41 percent of them possessed knowledge on the contraceptive measures for birth planning. Tubectomy, Vasectomy and use of Oral Pills were the referred methods of contraception. HIV/AIDS and its mode of transfer were known to 35 percent of them. They identified sexual relation as the channel for transmission of HIV/AIDS.

Part-V: Behavioral Constraints

Rate of substance abuse is 10 percent in the form of chewing tobacco. One incident of molestation has been

identified from among the respondent group.

Part-I: Personal Hygiene

94 percent of the boys used tap water as the chief source for drinking. Toothpaste is commonly used for brushing teeth, only 33 percent used neem for the purpose. Washing hand before food is a positive practice being followed by them. With respect to use of sanitary latrine at home, only 27 percent follow the practice and nearly 66 percent do not have access to sanitary latrine at home. The rate of school based sanitary latrine facility is very poor, nearly 55 percent of the schools do not provide the infrastructure. Though 45 percent of the schools provide the facility, of these, 63 percent remain unused. After defecation the material commonly used include ash and soap. 61 percent accessed the pond for the purpose of bathing.

Part-II: Consumption Pattern

61 percent of the adolescent boys received one square meal a day. Carbohydrate is the chief dietary source identified in their basic food group, which comprise of cereals, pulses and vegetables. Milk and milk products and animal protein are seldom consumed.

Note: In the context of consumption pattern, there is an existing gap (9 percent) in terms of frequency of food intake between adolescent boys and girls, however there is no deviance in relation to the quality of food consumed on a regular basis.

Part-III: Level of Awareness

Regarding the issue of age of marriage, only 44 percent considered 21 years for male and 72 percent considered 18 years for female as the approved age for marriage, both socially and legally. 66 percent of them possessed knowledge on the contraceptive measures for birth planning. Tubectomy, Vasectomy, Condoms and use of Oral Pills were the referred methods of contraception. HIV/AIDS and its mode of transfer were known to 44 percent of them. They identified sexual relation and intra-venal needle as the channel for transmission of HIV/AIDS.

Part-IV: Behavioral Constraints

Rate of substance abuse is 22 percent in the form of chewing tobacco and smoking. One incident of molestation has been identified from among the respondent group.

Part-I: Personal Hygiene

Tap water has been identified as the chief source for drinking. Toothpaste is commonly used for brushing teeth. Washing hand before food is a positive practice being followed by them. With respect to use of sanitary latrine at home, only 63 percent follow the practice and 27 percent do not have access to sanitary latrine at home. The rate of school based sanitary latrine facility is very poor, nearly 63 percent of the schools do not have the infrastructure. Significantly 27 percent of the schools provide the facility, but 27 percent remain unused. After defecation the material commonly used include ash and soap. 54 percent accessed ponds for the purpose of bathing.

Part-II: Physiological Status

About 72 percent of the adolescent girls undergo regular menstruation cycle. For nearly 81 percent, usually the cycle continues for 4-5 days. Nearly 72 percent of them suffer from pain during the period. 80 percent of them as traditional method use cloth for the purpose.

Part-III: Consumption Pattern

90 percent of the adolescent girls received one square meal a day. Carbohydrate is the chief dietary source identified in their basic food group, which comprise of cereals, pulses and vegetables. Milk and milk products and animal protein are seldom consumed.

Part-IV: Level Of Awareness

Regarding the issue of age of marriage, only 45 percent considered 21 years for male and 90 percent considered 18 years for female as the approved age for marriage, both socially and legally. 72 percent of them possessed knowledge on the contraceptive measures for birth planning. Tubectomy and Condoms were the referred methods of contraception. HIV/AIDS and its mode of transfer were known to 90 percent of them. They identified sexual relation and intra-venal needle as the channel for transmission of HIV/AIDS.

Part-V: Behavioural Constraints

Substance abuse is totally absent. Seven incidents of molestation have been identified from among the respondent group.

Part-I: Personal Hygiene

Tap water has been the common source for drinking. Toothpaste is commonly used for brushing teeth. Washing hand before food is a positive practice being followed by them. With respect to use of sanitary latrine at home, 87 percent follow the practice and 18 percent do not have access to sanitary latrine at home. The status of school based sanitary latrine facility is very high, nearly 95 percent of the schools do provide the infrastructure and only 5 percent remain unused. After defecation the material mostly used include soap, nearly 63 percent. About 35 percent accessed ponds and 45 percent accessed tap/tube well for the purpose of bathing.

Part-II: Consumption Pattern

Above 77 percent of the adolescent boys received one square meal a day. Carbohydrate is the chief dietary source identified in their basic food group, which comprise of cereals, pulses and vegetables. Milk and milk products and animal protein are seldom consumed.

Part-III: Level Of Awareness

Regarding the issue of age of marriage, only 43 percent considered 21 years for male and 63 percent considered 18 years for female as the approved age for marriage, both socially and legally. Marginal percentage possessed knowledge on the contraceptive measures for birth planning. Tubectomy, Vasectomy, Condoms and use of Oral Pills were the referred methods of contraception. HIV/AIDS and its mode of transfer were known to 45 percent of them. They identified blood transfusion, sexual relation and intra-venal needle as the channel for transmission of HIV/AIDS.

Part-IV: Behavioural Constraints

Rate of substance abuse is 38 percent in the form of chewing tobacco, smoking and betel leaf consumption. Ten incidents of molestation have been identified from among the respondent group.

Part-I: Personal Hygiene

Tap water has been the common source for drinking. Toothpaste is commonly used for brushing teeth. Washing hand before food is a positive practice being followed by them. With respect to use of sanitary latrine at home, 64 percent follow the practice and nearly 33 percent do not have access to sanitary latrine at home. The rate of school based sanitary latrine facility and its use rate is very high nearly 92 percent. After defecation nearly 77 percent used soap and 13 percent used ash. 59 percent accessed the pond for the purpose of bathing and only 20 percent had in-house facility.

Part-II: Physiological Status

About 58 percent of the adolescent girls undergo regular menstruation cycle and nearly 36 percent suffered from irregular cycle. For nearly 71 percent, usually the cycle continues for 4-5 days. Nearly 76 percent of them suffer from pain during the period. 74 percent of them as traditional method use cloth for the purpose.

Part-III: Consumption Pattern

Above 76 percent of the adolescent girls received one square meal a day. Carbohydrate is the chief dietary source identified in their basic food group, which comprise of cereals, pulses and vegetables. Milk and milk products and animal protein are seldom consumed.

Part-IV: Level of Awareness

Regarding the issue of age of marriage, only 41 percent considered 21 years for male and 87 percent considered 18 years for female as the approved age for marriage, both socially and legally. Marginal percentage possessed knowledge on the contraceptive measures for birth planning. Tubectomy and Vasectomy were the referred methods of contraception. HIV/AIDS and its mode of transfer were known to 28 percent of them. They identified sexual relation, from affected mother to her child and intra-venal needle as the channel for transmission of HIV/AIDS.

Part-V: Behavioural Constraints

Rate of substance abuse is 17 percent in the form of

chewing tobacco. No incident of molestation as been identified from among the respondent group.

Part-I: Personal Hygiene

Tap water has been the common source for drinking. Toothpaste is commonly used for brushing teeth, only 24 percent used neem for the purpose. Washing hand before food is a positive practice being followed by them. With respect to use of sanitary latrine at home, only 29 percent follow the practice and nearly 70 percent do not have access to sanitary latrine at home. The rate of school based sanitary latrine facility is very poor, nearly 58 percent of the schools do not provide the infrastructure. Significantly 35 percent of the schools provide the facility, however, it remain unused. After defecation the material commonly used include ash and soap. 59 percent accessed the pond for the purpose of bathing.

Part-II: Consumption Pattern

Above 90 percent of the adolescent boys received one square meal a day. Carbohydrate is the chief dietary source identified in their basic food group, which comprise of cereals, pulses and vegetables. Milk and milk products and animal protein are seldom consumed.

Part-III: Level of Awareness

Regarding the issue of age of marriage, only 41 percent considered 21 years for male and 76 percent considered 18 years for female as the approved age for marriage, both socially and legally. 82 percent of them possessed knowledge on the contraceptive measures for birth planning. Tubectomy, Vasectomy, Condoms and use of Oral Pills were the referred methods of contraception. HIV/AIDS and its mode of transfer were known to 47 percent of them. They identified sexual relation and intra-venal needle as the channel for transmission of HIV/AIDS.

Part-IV: Behavioral Constraints

Rate of substance abuse is 11 percent in the form of chewing tobacco. No incident of molestation has been identified from among the respondent group

Annexure

II

Methodology for Rapid Assessment Programme (RAP) study

Sampling methodology :

- The universe for the sample consists of all mothers of currently 0-2 year old children (reference date to be determined) in villages (areas covered by anganwadi centers) included as replication sites for the first phase of replication under INHP II (Integrated Nutrition and Health Programme). These are sites where INHP II had planned to establish interventions by September 03, and formed the universe of the baseline RAP in November 03 as well.
- The survey used two different index groups to estimate various outcome indicators. These index groups are:
 1. Mothers with children up to 6 months of age to estimate outcome indicators related to pregnancy, delivery and newborn care, and aspects of child care in the first six months.
 2. Mothers with children 6-23 completed months of age to estimate outcome indicators related to infant feeding practices, immunization and vitamin A.
- The service providers were interviewed to assess their knowledge and practices. Service providers include Anganwadi Workers (AWW), Auxillary Nurse and Mid Wife (ANM) and Change Agents (community volunteers trained by CARE)
- The minimum sample size required is mothers of approximately 540 children in each age group for each district with at least 90% capture rate.

Selection of AWCs

The envisaged sample of mothers of 540 children in each group is to be selected from household lists from sampled AWCs .

House-listing :

In each of the selected AWC, the entire catchment area of the AWC has been listed. A working map of the AWC area, depicting all the structures, needs to be constructed by the deputed agency. Care should be taken that no household in the AWC area is left out. In the case of large villages containing more than one AWC, it should be ensured that only those households falling in the geographical area of the selected AWC are listed/ mapped. The help of the AWW should be taken to identify the geographical boundaries of the AWC.

Only the usually resident mothers will be listed, during the house-listing exercise. Non-usual residents present in the households at the time of listing will not be considered for the survey and hence, will not be listed. This will mean fewer women will be available in the 0-5 months age group than expected according to birth-rate based estimates. However, it is expected that sufficient numbers will be found in 90 AWCs put together.

Selection of index women :

Two separate lists of children will be generated, one comprising children 0-5 months of age and the other 6-23 months of age. The sample of 540 children in the age group 0-5 months and 540 children in the age group 6-23 months will be drawn from these lists using a simple random sampling technique such that each eligible household in the 90 selected AWCs has an equal opportunity of being selected to be interviewed. Thus, the households to be sampled will be determined before the interviewers set out for fieldwork. While it is expected that the number to be sampled will be available from the 90 villages selected, any shortfall in the sample will be compensated for by choosing more AWCs as needed to make up the sample, even while house-listing is in progress.

There will be no replacements in the sample drawn and an achievement level of 90% separately for each group in each district is expected.