

Evaluation Mission Report
Area Development Programme Balochistan
(December 2 – 16, 2004)

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Acronyms used

ACS	Additional Chief Secretary
ADPB	Area Development Programme Balochistan
B:C	Benefit Cost ratio
C&W	Communications and Works
CCF	Country Cooperation Framework
CMST	Community management & Skill training
CO	Community Organization
CPAP	Country Programme Action Plan
FAO	Food and Agri. Organization
GIS	Geographical Information System
GoB	Government of Balochistan
GoP	Government of Pakistan
HEIS	High Efficiency Irrigation System
ICT	Information & Communication Technology
IPM	Integrated pest Management
IRR	Internal rate of return
LMST	Leadership Management & Skill training
MRs	Million Rupees
P&DD	Planning & Development Department
PV	Present value
SAP	Social Action Programme
SCF	Standard Conversion Factor
SM	Social Mobilizer
SMEs	Small & medium Enterprises
SWR	Standard Wage rate
TORs	Terms of Reference
UNDP	United Nations Development Programme
WCOs	Women Community Organizations
WFP	World Food programme
TBA	Traditional Birth Attendant

Executive Summary

A. The Achievements

The ADPB is implemented since January 1999 in 8 valleys of Balochistan with the innovative technique of involvement of communities in need identification, planning, design and implementation rather than the traditional top-down approach adopted by government departments. The funding agencies include UNDP, GoB, WFP and the beneficiary COs. The current phase of the Programme is till December 2004. The Project has implemented a number of activities to improve resource management and introduction of high return initiatives aimed at poverty alleviation and sustainable livelihood through community involvement. The achievements in various sectors are:

Social Mobilization/ Credit Management

- 638 COs formed (42% WCOs) formed with total membership of 11,468,
- Rs 4.73 million advanced to members for activities related to agriculture, livestock and enterprise development,
- Rs 4.55 million saved by CO members.

Agriculture Production/ Integrated Pest Management

- Provision of high yielding varieties of wheat, cotton and chick peas,
- Dissemination of improved crop husbandry like line sowing, moisture preservation, pruning of orchard plants and IPM technology,
- Train farmers in on-farm fruit processing and value addition.

Livestock Production

- Increased or at least sustained meat/ mutton per animal unit (in drought conditions) with supplemental diet by subsidized supply of molasses blocks,
- Improvement of cattle breed by supply of better quality bulls for cross breeding,
- Introduction of teddy goats/ rams with higher twinning probability leading to increased progeny and overall increased income.

Watershed/ Range Management

- Increased forage by re-seeding communal range lands,
- Planting trees on communal/ private lands for environmental improvement, fuel wood and increased income by sale of trees,
- Construction of check dams, erection of gabion walls/ valley dykes to increase recharge and water spread for higher crop area planting.

Irrigation Water

- Construction of micro-dams/ ponds for livestock and domestic use of water and rehabilitation/ cleaning of karezes for increased cropped area,
- Training and Demonstration of the effects of HEIS.
- Construction of dug wells/ water supply schemes near the settlements.

Social Sector, Gender & enterprise development

- Trainings to CO members/ staff aimed at income generation.
- Women empowerment by opening income generation avenues with their financial independence.

Geographical Information System

- Computerization of village profiles for selected valleys.
- Preparation of digital maps and creation of customized output maps.
- Trainings in computer skills.

B. The Gaps

The Programme objective of sustained increased income and reduced poverty has been achieved by and large. Some of the activities as given in the Programme document and PC-1 were not implemented due to the change in its scope in 2001. These relate to exploitation of potential in areas like minerals and tourism, farm to market roads, market places, transport and communications and waste disposal. The activities like introduction of sustainable energy options like solar cooker and solar water heaters were implemented very thinly due to their high cost or the technical flaws in their introduction.

C. Suggestions

ADPB has been successful in organizing communities for participation in local area development, introduce savings, improve agriculture and livestock productivity, rehabilitate rangelands/ watersheds, improve access to social services and bring the women in economic mainstreaming. The coverage has however, been very thin attributed to vastness of area and implementation in areas quite apart from each other. In order to optimize returns on investment, following suggestions are made:

- a. Extend the Programme for at least 4 years by excluding activities like mineral exploitation, tourism development, transport & communications, roads, renewable energy etc; may be excluded from the scope of the Programme;
- b. In addition to continue activities in already selected valleys, select a contiguous area (pilot project) rather than the scattered and fragmented approach;
- c. The savings made should be loaned internally to CO members instead of investing these outside the area;
- d. Demonstration plots of various kinds (HEIS, improved varieties, IPM) may be laid at places with mass impact, along road sides;
- e. The molasses blocks may be supplied at 25% price in 1st and 75% price in 2nd year and complete withdrawal afterwards;
- f. The Programme should explicitly focus on the record keeping at CO and Cluster levels, prepare maturity index for ranking of COs and improve the managerial skills of their leaders. There should be more focus on financial sustainability of the Clusters and developing a Business Plan for its microfinance programme
- g. The post of M&E Specialist should be created and all vacant posts filled in at an early date.
- h. As the Programmes are in line with the objectives of UNDP CPAP 2004-08 (poverty alleviation, removal of barriers and increased economic opportunities), dialogues may be initiated for resource mobilization of next phase of the programme.

Section -1

Introduction

1.0 Background

The approach suggested for productivity enhancement in the 9th Plan emphasizes efficient use of local resources, natural resource conservation and enhancing the capabilities of people to exploit economic opportunities and involving them in its design, construction, operation, maintenance and supervision to ensure cost effectiveness and financial sustainability. In view of the vast geographical and rugged area, scattered population, diverse climatic conditions and limited fund availabilities, the Plan mentioned the inevitable need of adopting policy of selective growth. The notion used was: (i) 'growth poles' identified as horticulture, crop agriculture, livestock, fisheries, minerals and trade, and (ii) 'growth centers' to be identified using the criterion of presence of population, presence and probable future concentration of activities in aforesaid growth sectors and availability of ground water potential.

The ADPB was formulated as a Programme replacing the stand-alone mode of development under various projects in the past by a broader spectrum of integrated and area specific activities to create the desired impact of sustained livelihoods for target beneficiaries, one of the three thematic areas in UNDP's CCF 1998-2003. The Program was developed during 1.5 years PA started in July 1997 and is implemented since January 1999. The GoB designated eight districts for the coverage keeping in view the criterion mentioned above for identification of 'growth centers'. In view of vastness of the area, valleys were selected in 8 districts based on the criteria of prevailing poverty, holding size, existing infrastructure, accessibility, poor access to social services, potential for integrated development, absence of previous infrastructure and community attitude towards participatory development.

1.1 Programme Objectives

Based on the recommendations of CAR, PC-1 was prepared for the 5- year program costing to Rs 865.386 million. The cost was to be shared by GoB (35.8%), UNDP (26.3%), WFP (22.8%) and the beneficiary Communities (15.1%). ADPB is a multi-sectoral community participatory programme of poverty alleviation and sustainable livelihood with special focus on rural poor. The broad objectives of the Program as set forth in the PC-1 were as follows:

- a. Increase level of economic activity in the province - higher land/ livestock productivity, improve produce quality, post-harvest management/ marketing and water availabilities/ management, value addition, higher exploitation of minerals and tourism opportunities, promotion of small scale enterprise and commercialization of micro enterprises;

- b. Improve level of human resource development – facilitation of access to education, health and drinking water, skill development, improve efficiency of government administration;
- c. Involve Men and Women in Development – increase awareness, facilitate participation in developmental activities, discourage gender based discriminatory treatment, increase access to social amenities, integrate on-going and planned efforts like SAP & WFP into the Programme;
- d. Establish Institutional Framework to support other objectives – increase representation of communities in development, improve efficiency of Line Departments and improve inter-department coordination, decentralization of development process/ transfer of responsibilities, integrate other donor funded projects into the programme;
- e. Provide infrastructure – farm to market roads, improve market places, improved means of transport & communication, increased number of educational/ health facilities. Increase drinking water & sanitation facilities, credit availabilities, increased access to renewable energy, strengthen data base through GIS; and
- f. Arrest Environmental Degradation – awareness, introduce fuel wood/ feed/ fodder alternatives, protect and develop rangelands, increase plantation and vegetation cover, improve aquifer recharge, introduce sustainable energy options, reduce flood damage, check soil erosion, efficient waste disposal, reduce use of synthetic chemicals especially pesticides.

1.2 Programme relevance to UNDP Goals

After successful implementation of CCF 1998-2003 through upstream policy support, piloting innovative approaches for community empowerment and capacity-building at all levels, CPAP 2004-08 has been formulated by UNDP and GoP. The CPAP corresponds with the UNDAF and GoP's five year Development Programme. Some of the areas of cooperation in the field of Institutional capacity-building include: (i) participatory poverty monitoring and research, (ii) promoting gender equality, (iii) strengthening and consolidation of the devolution, (iv) disaster/ risk management system, and (v) environmentally sustainable development. Specifically the Programme aims to achieve the following objectives:

- to lift out one million individuals out of poverty by removing barriers and increased economic opportunities,
- implement 10,000 productive community schemes,
- establish 100 ICT centers in rural areas contributing to economic development and poverty reduction,
- strengthen 50,000 SMEs for rural development and poverty reduction,
- employ/ train 0.5 million youth, and
- introduce 10 sustainable credit schemes.

1.3 The Evaluation Study

The current phase of the Programme initiated in January 1999 will expire on 31st December 2004. In view of the benefits accruing to the communities and the economies of the selected valleys, the need was perceived to extend the implementation of activities in the left-out pockets of selected valleys and in new perspective areas of the province. It was with this objective that the need for this Impact Assessment was perceived.

The Evaluation Study aims at carrying out a forward looking review of the Programme design, implementation strategy, sustainability, impact, results, achievements, identify gaps and successes and make recommendations for future action. However, the expanded Programme areas and time constraint restrict the Mission to have a representative sample based Study.

The Study's focus has largely been on the critical issues, which need Programme's attention for their resolution. The findings are based on review of various reports, discussion with the Programme's management and concerned staff and meetings with communities' members of four Organizations (one cluster and 3 COs). The discussions were made with the office bearers of a Cluster at Ornach (Khuzdar Valley), CO members at Belt, Shafi Muhammad and Kili Murad Khan. The mandate given to the Evaluation Mission and TORs is attached as Annexure 1.

1.4 Meetings with Local Officers

The Mission called on the officers of Line Departments on 6th December to have their views on the working of the ADPB and invited suggestions for improvements. Briefly the deliberations are as follows:

Mr Waja Abdul Raziq Conservator Forest Quetta was highly appreciative of the cooperation extended by ADPB in plantation of rangelands and trainings arranged for the staff and the communities. He stressed the need for introducing shrubs other than the commonly planted Salt Bush which is not liked by the ruminants. He emphasized the need for inclusion of Mekran district in the Program area in view of the vastness of its area and intensive livestock population in the district.

Dr Abdul Rauf Director Planning Livestock and Dairy Development Balochistan mentioned that Diagnostic Labs were established at 3 places in the province. The labs were well equipped with the equipment and chemicals in the near past but due to shortage of funds, only one lab at Quetta is functioning. He mentioned that due to persistent drought, the farmers are compelled to sell their stock at cheap rates with the result that livestock population has decreased substantially. He appreciated the contribution of ADPB relating to provision of molasses blocks and training to its staff and farmers in aspects like artificial insemination.

Mr Riaz Khan Director General Research Balochistan was happy with the cooperation of the officers of ADPB. He stressed the need for local expertise to train officers of Research Directorate especially in the field of High Efficiency Irrigation System (Trickle/ Bubblers) and IPM. He mentioned the grave situation regarding non availability of pure strains of various crop seeds. He also showed his concerns about commercialization

of the activities of Research Farms whereby the emphasis is now primarily on increasing income rather than the research. Also mentioned was the need for Tissue Culture training particularly for oil palm, potatoes and dates. He mentioned that in view of persistent drought, the farmers in Loralai are replacing their apple orchards with pomegranate and almonds. The other points mentioned by him included linking electricity tariff of tubewells with adoption of cropping pattern suggested by Agri. Department, planting of crops considering the returns per unit of water.

Mr Altaf Hussain Director Agri. Research Institute, Mr Bashir Ahmad Principal Agri. Training Institute and Mr. Karim Shahwani Director Plant Protection appreciated the cooperation extended by ADPB especially the training imparted regarding IPM activities. They were concerned about the availability of seed especially wheat in current season due to the ban imposed by Punjab Government. The aspects of poor coordination between Agri. Extension and Agri. Research Wing and also between Agri. Extension staff and farmers was also highlighted.

Section – 2

Programme Performance

2.0 Activities Undertaken

The achievements of ADPB broadly fall in 7 broad heads: (i) Social mobilization/ credit management, (ii) Agriculture production/ Integrated Pest Management, (iii) Livestock production, (iv) Watershed and Range Management, (v) Irrigation and Water, (vi) Social Sector, Gender & enterprise development, and (vii) Geographical Information System. Additionally there is a Communication and Publications to take care of the progress reports and documentation.

2.1 Implementation Arrangements

The ADPB is headed by Additional Chief Secretary (Development) Major R Nadir Ali in his capacity as the National Project Director assisted by Dr. Rashid Javed, the Programme coordinator. For planning and implementation, there are 6 Specialists performing functions related to their disciplines in addition to the Communication Officer. Since the resignation of one of the Specialists (Social Sector Specialist), the post is still vacant since last year. The Specialists are designated as under:

- Social Sector Specialist
- IPM Specialist
- Irrigation & Water Resources Specialist, and
- Livestock & Fodder Production Specialist
- Ecosystems Specialist
- GIS Specialist

The implementation is through the field offices located at Quetta, Khuzdar and Loralai headed by Community Development Supervisor. He is assisted by SMs – male and female. The number of SMs is different varying from 2 to 5.

2.2 The Achievements

The achievements of the Programme are given below under the various sectors mentioned.

2.2.1 Social Mobilization/ Credit Management

The activities in this sector fall in 5 main categories given here under.

2.2.1.1 Social Mobilization

The Programme aims to achieve its objective of poverty alleviation through community based activities. Out of the total of 638 COs formed, 42% are WCOs. In all 9,529 HHs have been covered with a total membership of 11,468. At 2 places, apex bodies or clusters have been formed encompassing the COs of the area and have been linked with various Line departments to ensure their sustainability. Given that the Programme spent almost one and a half years as preparatory phase and faced some operational problems in the release of funds, it is a substantial breakthrough in this primitive society.

A number of CO members due to greater awareness and empowerment have become the elected members under the Govt. Devolution Programme. This includes a number of women councilors who became the members in an area where women seats used to remain vacant due to less awareness and cultural taboos. In contrast to the Departmental approach of working with few better off, the Programme has been channeling its resources through the grassroots community organizations which provide greater equity and broader participation

A unique feature was recorded in the meeting with programme staff in the Mastung valley, where the Female Social Mobiliser reported that the members of WCOs own agriculture land that is managed by them. She was of the view that income generated from agriculture is spent by WCO members themselves.

2.2.1.2 Microfinance

The Microfinance programme aimed at the provision of financial services to disadvantaged communities who were considered 'not credit worthy' and development of a sustainable system of Revolving Fund at the village level. The Programme started credit disbursement in FY 1999-00. The 3 loan products are categorized on the basis of repayment period (short, medium and long term). However, no upper ceilings are fixed for any type of loan. The disbursement is in 3 sectors: (i) enterprise development, (ii) agriculture, and (iii) livestock. A review of the progress made so far is as follows:

- The Programme has so far disbursed Rs. 4.73 million to 651 borrowers. Of the total number of borrowers, women are 441 (64%) availing Rs. 2,554,770 (54%) of the total amount of disbursement.
- The average loans size is Rs. 7260 (6171 for Men and 9164 for Women).
- Non Agricultural loans constitute 27% of the loan portfolio.
- All loans were advanced free of interest with nominal service charge (5%).
- The repayment amounting to Rs 1.72 million is too slow as can be seen from the followings:

<u>Year</u>	<u>Recovery Rate</u>
2000	0.23%
2001	23.66%
2002	25%
2003	54%
Over all	36%

2.2.1.3 Savings by the COs

With the motivation of Programme staff, the COs have generated Rs 4.55 million but the saving pattern is not regular. Also no use of generated savings is made so far. Internal lending of these savings would have helped attain the objectives of financing the poor instead of keeping the money in the banks. An option being considered for the use of saved amount is to invest it in some high yielding returns which would lead to flow of capital out of the contributing communities. Also the issues arising from such an investment would be the sharing of profits, maintenance of accounts and its monitoring.

The average savings per member are considerably good in the sense that saving in ADPB's Programme is voluntary. It was also found that the savings are not kept in the Bank but are lying with the President or Secretary which is against the normal practice. However a review of the monthly saving pattern of the COs revealed that these savings are not regular. Savings made by MCOs and WCOs are as given below:

Table 1: Savings made by COs/ Members

Description	Men	Women	Total
Total Savings – Rs	3,176,430	1,369,379	4,545,809
Total COs – No	370	268	638
Total Members - No	6,515	4,157	10,672
Average Saving - Rs			
Per CO (total)	8,585	5,110	7,125
Per Member (total)	488	329	426
Per CO per month	238	142	198
Per Member per month	14	9	12

Note: average based on assuming average life of all COs as 36 months

2.2.1.4 Trainings

A number of trainings are imparted to the staff of COs, the staff of line departments and CO members. These include CMST, LMST, technical training to departmental staff, technical skills, vocational training, skills/ trainings related to crop husbandry and livestock etc. The benefits from most of the trainings are in the form of increased income from livestock, crop production, water savings/ spreading leading to increased crop acreage. However, there are many income generating trainings that are made use of by the trainees to earn their livelihood. These include computer skill, para-medical staff, technicians like welding, handicrafts etc.

There is need to improve the COs' record keeping procedures to ascertain the status of equity and participation with in the COs. This is important for ascertaining whether in reality the decisions are being taken in a participatory and transparent way or not. During the course of our interaction with the communities, it was found that the COs do not have complete records whereby it could be seen that the CO members were meeting on regular basis, they were doing savings regularly, making decisions collectively and distributing resources equitably. The Programme has developed some record keeping books but these haven't been fully implemented at the filed level.

2.2.1.5 Linkages established

As part of its Exit Strategy, the Programme is clustering the COs in apex bodies and training them as "service providers" to replace the Programme. Conceptually the strategy is reasonably good and is important for making Programme's interventions viable and sustainable in the longer term. A visit to one of the Clusters (Falahi Taraqiyati Tanzim, Ornach) revealed that the Programme has made substantial progress especially linking up the Cluster with various external agencies including TVO, UNICEF and SPO. The Cluster has availed of funds from these Agencies and has the vision to continue so in future. Besides the

aforementioned Agencies, the Programme has been successful in linking up other COs with different donors and line departments. The details follow below:

Table 2: Linkages established with other Donors/ Agencies

Nature of Activity	Number	Donor Agency/ Department	Line
Water Reservoir	4	Taraqee Trust	
Karez Extension	1	Taraqee Trust	
Establishment of Community Schools	2	TVO	
Construction of Schools	1	TVO	
Teachers Appointment	7	TVO & Education Deptt.	
Provision of Pit Latrines	20	WESS	
Provision of Hand Pumps	10	WESS	
Provision of Schools Materials	35	Education Department	

2.2.2 Agriculture Production/ Integrated Pest Management

The interventions made relate to the establishment of demonstration plots to disseminate crop husbandry and impact of improved seed, distribution of good quality seed for multiplication and subsequent propagation, introduction of drought resistant varieties, diversify cropping pattern aimed at increasing farmer income, substitution of low cost and environment friendly IPM technique instead of increasing use of un-warranted and poor quality pesticides. ADPB has made substantial progress towards the achievement of targets envisaged. The net effect of these has been an increase in the income of farmers amounting to Rs 13.29 million in the year 2004. Given the adoption rate as observed in the last 2-3 years, it is expected that the gains will not only be solidified in coming years but the neighboring farmers will also adopt the use of inputs and practices. The achievements in this sector are as follows:

- Laying out 499 demonstration plots (0.5 to 1.0 acre) for wheat/ cotton and vegetable to propagate comparative gains of better varieties, pure seed and improved cultural practices,
- Provision of better quality wheat seed (Zardana & Zarlashtha) to farmers (subsidized till 2000, charged at 50% till 2002 and full price since then) for multiplication and subsequent planting in adjoining areas,
- Introduction of short duration peas (60 days) which spreaded from just 7 acre in 2003 in Sanjavi (Baghao)/ Shinlaza valley to 300 acre the very next year,
- Induct the low cost (nominal price) farmer friendly Trichogamma parasite for multiplication in apple orchards (for codling moth) to minimize dependence on ever increasing use of pesticides costing about Rs 1000/- each,
- Demonstrate/ introduce the use of pheromone traps for apple pests and also the corrugated papers to reduce use of pesticides,
- Supply of 2 wheat drills for line sowing in Mastung area to introduce/ demonstrate comparative gains over the traditional system of broadcasting,
- Create awareness amongst farmers to plant fruits keeping in view the Agro-climatic conditions (reverting to almond, olive, pomegranate in Loralai, pomegranate and grapes in Khuzdar) and market demand,

In addition to the activities having immediate effect in terms of increased income as mentioned above, a number of activities were undertaken having indirect impact. These include demonstration in activities like plantation of fruit nurseries, provision of equipment for Soil and Water Testing Labs, revival of abandoned Biological Control Lab, dissemination of improved technology through leaflets/ brochures, trainings in IPM technology and Agro-based product making, value addition, establishment of green house/ shade house etc.

2.2.3 Livestock Production

The activities in livestock focused on introduction of better quality cross bred animals/ ruminants, mitigation of drought effects by provision of supplemental diet, better reproduction and training of farmers and officers of the line department. Some of the salient features of the activities and their effects are as follows:

- a. Introduction of subsidized 'Molasses blocks' to meet fodder/ forage deficiency as supplemental diet,
- b. Feeding of 'Molasses blocks' to cattle varying from 450 to 500 grams per day depending upon milk production',
- c. Substitution of traditional oats priced at Rs 12 – Rs 14 kg with the 'Molasses blocks' costing Rs 9 per kg,
- d. Additional feeding of 100 to 120 gm of 'Concentrate feed' to sheep for 21 days during breeding season (Oct/ Nov) for increased 'ovulation' leading to higher pregnancy,
- e. Supplementing the efforts of Line Department by supplying 'Frezian bulls' in districts like Khuzdar and Kingri where the department did not initiate its activities due to shortage of funds,
- f. Create awareness amongst the farmers to replace non-descript animals/ ruminants with better quality cross-bred ones,
- g. Provision of bulls with better genetic characteristics to COs for mating reducing the maturity age of females, improved health, higher milk and prolonged lactation period,
- h. Provision of 452 'teddy goats/ rams' with short pregnancy age in Ournach, Whaire and Bajoe valleys of Khuzdar district leading to increased number of animals. The number has multiplied replacing the original breed.
- i. Provision of subsidized units of 'Fayoumi chicken' (subsidy reduced to 50% now) with average egg laying of 140 to 180 instead of traditional ones laying 80 – 90 eggs per year,
- j. Opening of avenues for undertaking economic activity by training the Activists in opening up of Veterinary stores in rural areas and improve their earnings.

Apart from above, a number of activities were performed like dissemination of improved livestock husbandry techniques, opening up of income generating avenues in the remote areas, trainings in livestock raising and concentrate fabrication, introduction of better quality and increased fodder varieties, livestock vaccination etc.

2.2.4 Watershed and Range Management

Livestock plays a prominent role in the pastoral economy of the province. The communal lands give a look of just naked fields due to drought and over-grazing in areas where plantation is not made so far. The Programme has introduced the concept of re-seeding the waste lands (over grazed and barren areas) with salt bush and grasses by adopting water harvesting techniques. Plantation of eucalyptus in addition to contributing to environmental up-gradation locally, has introduced the concept of 'closed areas' for the ruminants for 2-3 years. This has enabled the vegetative growth of grasses/ shrubs for subsequent use.

With adoption of watershed management techniques, the run-off water is spreaded thinly over larger area leading to increased plantation of rabi crops (wheat, sorghum) using residual moisture. The investment made in this sector related to the following activities:

- a. construction of structures to check flooding and increase crop acreage by spreading water over vast areas for sowing crops on residual moisture,
- b. construction of ponds for recharge, drinking water supply and livestock needs and fish production,
- c. reseedling/ preservation of range lands,
- d. raising of community range plant nurseries,
- e. monitoring grazing in range lands,
- f. planting for the rehabilitation of degraded rangelands and watersheds

The Programme also has its impact by intervening in activities benefiting the communities indirectly. These include protection of old watershed sites, demonstrating the gains by planting/ re-seeding the rangelands using water harvesting techniques, introduce rotational grazing etc.

2.2.5 Irrigation and Water

The need for conserving water and its exploitation is all the more important to mitigate the drought effects having its impact in all walks of life. In line with the objectives of the Program, the ADPB undertook the construction of water related structures like Water Supply Schemes, water storage tanks, lined water channels, rehabilitation of Karezes etc. In order to propagate the raising of crops using HEIS, demonstrations and trainings were imparted to professionals, staff and farmers. Availability of drinking water is the major factor affecting daily life of women and children especially the girls responsible for managing water from far flung areas. On an average 3-4 hours of time per HH was used. Drinking water has been provided through piped supplies from springs, dug wells or connecting the settlements through pipes with the nearby tubewells. The activities undertaken in this sector are briefly given here under:

- a. Installation of HIES (6 trickle and 6 bubblers) to create awareness amongst farmers towards irrigation water saving and its efficient utilization,
- b. Construction of 28 Water Supply schemes in COs benefiting 700 HHs to save drudgery for women and increase attendance of school going children,
- c. Establish 66 D- plots for improved irrigation practices to create awareness amongst farmers for adoption,

- d. Construction of 23 lined water storage reservoirs and 7 water conveyance structures (channels, siphons, conduits) to reduce water losses and increase irrigation efficiency,
- e. Rehabilitation of 44 Karezes with 30% contribution by beneficiaries in the form of unskilled labour/ material transport,

Other activities undertaken in the field of Irrigation and Water include on-the-spot training to staff of line departments in comparative gains by use of HEIS, dissemination of improved technologies through leaflets/ brochures, revive the working of Water Quality Lab by providing needed equipment etc.

2.2.6 Social Sector, Gender & Enterprise Development

The activities undertaken in this Sector broadly aimed at creating gender balance by women empowerment. This was done by imparting trainings to women/ girls in specific gender related activities like knitting, handicrafts, embroidery etc. The objective was to bring women in the mainstream along side the men. In addition, trainings were also imparted to men in specific skills like welding, electrification etc. Various trainings imparted and activities undertaken included the followings:

- a. Provision of 'teddy goats/ rams' to women,
- b. Training women/ girls in knitting, handicrafts and embroidery,
- c. Advancing credit to WCO members for undertaking enterprise development,
- d. Health, Hygiene and TBA training to women,
- e. Computer course/ teacher training/ literacy classes including women/ girls,
- f. Training men in wool shearing,
- g. Vocational training to men/ women,
- h. Training boys in dispensing vaccinating animals,

In addition to imparting trainings to women/ girls in various handicrafts/ knitting/ embroidery etc; the staff arranged contacts with perspective buyers of their products in Karachi Metropolitan. This on the one hand created market for their products, on the other it led to gender empowerment by making them independent financially. Similarly the trainings in computer has increased the chances of their employment in various offices.

2.2.7 Geographical Information System

The GIS facility has been established under the on-going UNDP assistance. The System is not only performing the responsibilities entrusted by ADPB but is strengthening the provincial departments especially the Planning & Development Department in maintenance of computerized records. In the absence of M&E Section in ADPB, the Section is not being used optimally. Various activities undertaken in this sector include the followings:

- a. Updating of GIS software
- b. Digitization of paper maps
- c. Acquiring/ archiving of Satellite images (NOAA-HRPT)
- d. Acquisition of Landsat 7 images
- e. Computerization of village profiles for selected valleys
- f. Preliminary Geographic Analysis
- g. Preparation of Digital maps

- h. Create customized output maps
- i. Data entry of District Census Reports
- j. GPS survey of community organizations
- k. Train officials of GSP, Forest, Irrigation Department and Internees
- l. Preparation of Met Data and Data Backups
- m. Development of Drought Index
- n. Vegetation survey
- o. Land cover maps according to LCCS of FAO

2.3 The Impact

The Programme has its impact leading to increased income of beneficiary communities in selected valleys. In addition many of the interventions have their impact on adjoining communities. The impact observed is as follows:

- a. Accelerated adoption of improved crop varieties and cultural practices,
- b. Diversified cropping pattern by growing off-season peas and cotton,
- c. Sustained number of livestock heads by introduction of teddy goats/ rams and vaccination and improved health/ milk yield by cross breeding,
- d. Availabilities of grasses in rangelands and sowing of multi-cut fodder crops,
- e. Reduced drudgery for women with near-by water availabilities and changed living pattern from 'nomadic' to permanent settlements,
- f. Realization of the gravity of water scarcities and awareness for the efficient use of irrigation water through HEIS demonstrations,
- g. Environmental up-gradation with plantation of range/ communal lands,
- h. Awareness for the high yielding joint/ communal actions instead of the so far adopted fragmented and individual approach,
- i. Investment of funds from various agencies for the common cause with linkages established with ADPB assistance/ guidance/ awareness, and
- j. Increased income and reduced poverty for beneficiary HHs to the tune of Rs 8,286 per annum per beneficiary HH as a result of various interventions.

2.4 Sustainability

Some of the activities undertaken by ADPB require short period of time to have their impact on beneficiaries. These include the activities like supply of water, provision of latrines, supplemental diet for livestock, introduction of improved crop varieties and improved livestock breed, karez rehabilitation, water diversion, computer literacy, handicraft training etc. The communities having realized the gains adopt these at their own. The adoption of improved practices also spreads in neighbouring areas. The extent of their adoption however, can not be ascertained in this short Study.

There are few activities that need much longer time (2-5 years) to have their impact on the lives of the people. These include range plantations/ re-seeding and cross breeding for cows. The interventions in activities like sustained adoption of new livestock breeds and crop species, efficient irrigation system demonstration/ introduction, replacement of IPM technology depends upon their demonstrational effect over a longer period of time.

2.5 The Gaps

The ADPB has been successful in achieving its designed objectives by and large. The impact has however, been primarily in selected valleys attributed to its implementation design. Most of the activities envisaged in the PC-1 are undertaken but there are quite a few that are either not taken up or if implemented, there was no active role of ADPB in their execution. These include:

- Exploitation of minerals and tourism – the activities are taken up by the Line Departments;
- Improvement of farm to market roads – a number of roads are constructed by C&W Department including the valleys selected by ADPB;
- Improve market places;
- Improve means of transport and communications;
- Increase access to renewable energy options to reduce pressure on fuel wood and electricity. The activity is very costly with little benefits. Also the technology is at its infancy so far;
- Strengthen arrangements for efficient disposal of waste – no intervention so far by ADBP or any government department.

Many of the activities listed above have been implemented by the line departments at their own. These include mineral/ tourism, road construction, communications etc. The provincial government has made investment in these sectors including the valleys selected by ADPB but without any consultations with the Programme staff.

M&E is an important instrument for timely course correction in the light of experiences gained. In spite of the clear cut directives at different stages, this has been a neglected aspect of the Programme. There is lot of data collected relating to the communities – Baseline and post-implementation data. A comprehensive database is being maintained in GIS Section which is very well equipped with gadgets/ manpower. Unfortunately no inferences could be drawn from this data merely due to the non existence of any M&E Section.

2.6 Role of other Departments

The policy decisions are made by the National Project Director/ ACS (Planning) and Programme Coordinator. By virtue of the position of P&DD as the controlling department in any province, the coordination amongst line departments or organizations and ADPB is very good. The nature of activities undertaken by the Programme are a major supplemental source in terms of technical know how and financial stringencies. The Programme has been helpful in re-activating the laboratories established but not working due to shortage of funds (Soil and Water Testing Labs, Biological Control Lab, Improvement of Field Veterinary Dispensaries), training/ short visits of the personnel of line departments etc.

The ADPB is also getting the benefits of experienced resource persons from Line Departments for training the Activists and CO members. These include specifically the persons from Forestry, Agriculture and Livestock departments. The cooperation between the ADPB and line departments as an implementing partner for various activities has been excellent.

2.7 ISSUES AND CONSTRAINTS

Various issues and constraints affecting the attainment of desired objectives are as under:

- Scattered approach for social mobilization,
- Non-availability of poverty ranking data,
- The unavailability of Maturity Index to rank COs,
- Investment policy for the savings made by COs,
- No interest on amounts advanced to members,
- Provision of M&E Specialist and filling in the vacant posts,
- Absence of detailed impact assessment for the Programme

2.8 Cost Benefit Analysis

In order to assess the impact of the Programme, various activities undertaken are quantified to carry out financial and economic analysis. Due to paucity of time no systematic field data was collected. Reliance was thus, made on the data provided by the Executing Agency. The benefits from various interventions and their adoption rate are however, based on 2 day reconnaissance visit in Mastung, Kalat and Khuzdar area.

Some of the interventions have immediate impact in the form of increased productivity, high multiplication rate within and outside the selected valleys, better price etc. However, there are a number of activities especially the trainings imparted that will be partially made use of by the trainees. Also the effect of such interventions will have localized effect.

2.8.1 Prices

The prevailing financial prices were collected from the farmers or the Quetta market. For economic analysis, these are converted to economic values using the SCF/ SWR and import parity price for wheat. All values are derived at 2004 level using prevailing prices for the outputs updating costs incurred in the past. For wheat the import parity price taken as Rs 13.75 per kg of wheat is taken based on the import price of wheat in the near past. Cotton price is reduced by 10% to account for the quality difference. The factors used for converting other financial values to economic values are as follows:

SCF (monetary values)	=	0.90
SWR	=	0.75
Price of Nursery plants	=	1.5
Embroidery/ handicrafts	=	1.2
Meat/ mutton	=	0.75

2.8.2 Cost/ Financing

Total financial cost of the Programme is Rs 404.75 million spreading over a period of 6 years. Year wise expenditure incurred and fund provision by source is given in Table 3. On overall basis, UNDP has contributed 70% to the total cost followed by 19% by GoB and 10% by the COs. Contribution by GoB has been nominal except in the year 2002-03 when 68.45 MRs were contributed. Similarly the contribution by WFP has been varying. The highest expenditure (35%) was

incurred in fiscal 2002-03. Financial shortfalls in initial years has been the major cause of slow progress in initial years hindering long term planning of activities.

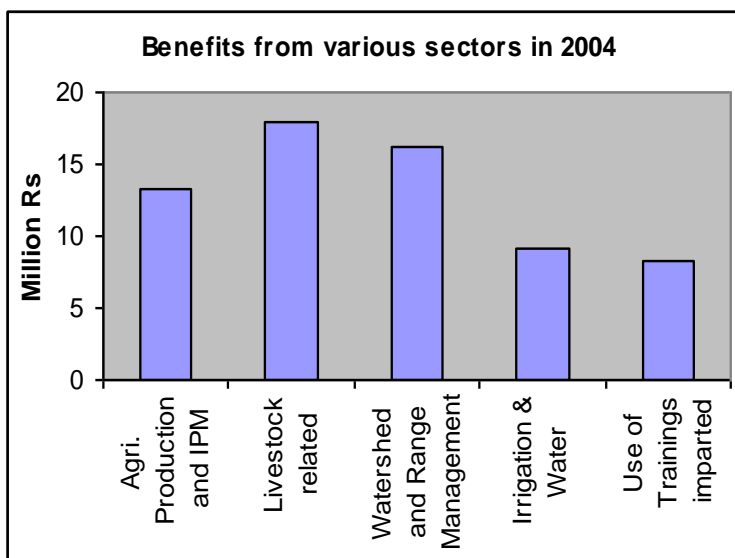
Table 3: Year-wise Financing by Source – MRs

Year	GoB	UNDP	WFP	COs	Total	% of total
1999 – 00	2.74	40.75	0.00	0.00	43.49	10.7%
2000 – 01	0.54	44.21	2.31	0.00	47.06	11.6%
2001 – 02	0.79	30.83	0.08	0.00	31.70	7.8%
2002 – 03	68.45	61.48	0.00	11.40	141.33	34.9%
2003 – 04	4.00	62.17	1.30	17.10	84.57	20.9%
2004 – 05	0.00	41.92	3.27	11.40	56.60	14.0%
Total	76.52	281.37	6.96	39.90	404.75	100.0%
% of total	18.9%	69.5%	1.7%	9.9%	100.0%	

In order to carry out cost benefit analysis, the costs incurred in the past are updated to 2004 price level using compounding factors at 12%. Total cost is worked out as Rs 577.49 million. For purposes of economic analysis, the financial costs are converted to economic costs using SCF of 0.9. Total economic cost at 2004 level is calculated as Rs 519.74 million.

2.8.3 Benefits

The benefits from different interventions are calculated for each sector in the light of achievements given earlier in Annex 1 to 5 for various sectors. The benefits are given both using financial and economic prices. The figures for Agri. Production and Livestock are worked out using the growth rates adopted for various activities estimated in the light of discussions with COs and



reconnaissance visits. The growth rate for improved wheat sowing is taken as 5% over the 2004 level and the same is taken as 2% for all other activities in agriculture and livestock sector. No growth is however, assumed for the wheat demonstration plots. The summarized figures are as in Table 4 below:

Table 4: Benefits from various Interventions

Sector	Benefits in Year – million Rs				
	1	2	3	4	5
A – Financial					
Agri. Production and IPM	13.29	13.58	13.88	14.19	14.51
Livestock related	17.96	18.32	18.69	19.06	19.44
Watershed and Range	16.18	16.50	16.83	17.17	17.51
Irrigation & Water	9.07	9.25	9.44	9.62	9.82
Use of Trainings imparted		8.40	8.57	8.74	8.92
B – Economic					
Agri. Production and IPM	13.43	13.73	14.04	14.36	14.68
Livestock related	16.73	17.07	17.41	17.76	18.11
Watershed and Range	16.12	16.45	16.77	17.11	17.45
Irrigation & Water	8.24	8.41	8.58	8.75	8.92
Use of Trainings imparted	8.69	8.86	9.04	9.22	9.40

2.8.4 The Returns

Financial and economic analyses have been carried out in Annex 6 using financial and economic values respectively. Once the users adopt an improved practice, he or she will continue with that practice, rather try to improve upon it. Though the benefits for most of the activities will be for an infinite period, it is taken as 25 years for this analysis for the reason that discount factor after this period, becomes negligible. The results are as follows:

Results of Analysis

Description	Financial	Economic
NPV at 12%	58	96.02
B : C at 12%	1.11	1.21
IRR	13.7%	15.1%

The rate of return in financial or economic terms is above the cut-off rate of 12% adopted for various projects by GoP. It thus, shows the positive contribution by various interventions by ADPB.

2.9 Contribution to Poverty Alleviation

ADPB's Programme operational area is resource poor and inhibited by poor communities. This in one way can provide a rough basis for assuming that the Programme is working with the poor communities, however it doesn't provide a basis for systematically assessing whether the poorest of them are being accessed or not. A Poverty survey was conducted whereby information was collected from 1,707 HHs. The data has been entered in the computer but no analysis made so far. It is thus, difficult to assess the Programme contribution for different groups based on poverty status. Therefore, the estimations are made on overall basis using the FIRR calculated and total number of beneficiary HHs. The investment made (2004 price level) is Rs 577.49 million while the beneficiary HHs are Rs 9,529. The contribution of the Project to poverty alleviations thus, works out to Rs 8,286 per HH per annum.

Section - 3

Conclusion and Recommendations

The Programme has been successful in achieving its objectives of community mobilization, induced savings, generate economic activities, increase income and reduce poverty. However, the Programme's approach is scattered with activities spread over a wide area. Such approach is costly because of higher operational cost due to thinly spread COs and greater follow up cost. Another draw back of such approach is that because of the thinly spread activities/ interventions, nominal impact can be noticed in a given area. Consequently the rate of adoption by neighbouring areas is slow. The conclusions drawn based on the Study and recommendations are given as follows:

3.1 Conclusion

ADPB has been successful in organizing communities for participation in local area development, introduce savings, improve agriculture and livestock productivity, rehabilitate rangelands/ watersheds, improve access to social services and bring the women in economic mainstreaming.

While the successes of the Programme are sustainable in communities selected, these have limited impact in other areas attributed to vast geographical areas and localized potential of water related activities. There are also numerous pockets in selected valleys where the Programme still needs to have its presence felt. The activities if implemented in a contiguous area (selecting a pilot area with intensive coverage) would have greater impact at low cost.

In order to propagate the improved practices especially for agriculture and livestock, the activities need to be intensively carried out in a small contiguous area to have visible effect. Similarly the efficacy of HEIS needs to be demonstrated at conspicuous places, along major roads.

The Programme has so far not carried out a detailed impact assessment of its various interventions. Such studies help to assess the impact and assist in designing future course in similar projects.

3.1 Recommendations

The following recommendations are made to accelerate and attain the overall objective of poverty alleviation:

3.2.1 General

- Extend the Program life by at least another 4 years to promote/ disseminate the successes gained in selected valleys.
- Exclude activities involving major investments and being adopted by Line departments from the scope of this programme. These include the activities like roads/ communications, mineral exploitation, tourism development etc.
- In addition to the continuation of activities in left-out pockets of selected valleys, select a pilot area for intensive implementation of activities to have visible impact within and outside the area.

- Lay more emphasis on community mobilization with their involvement in all stages and on ascertaining the strategic gender needs of women folk.
- Define upper ceilings of different loan types (short, medium and long term), deposit all savings in the banks and use saved money for internal lending.
- Create the post of M&E Expert and filling in of all vacant posts.
- Document the achievements and disseminate them at local/ provincial and national level.
- Collection of Baseline data focusing on poverty ranking for each beneficiary HH before the initiation of any activity in an area. Poverty ranking data already collected should be analyzed for use in the Impact assessment study suggested to be carried out soon.
- Initiate dialogues with UNDP and WFP for resource mobilization to have the desired impact of employment generation and poverty alleviation.

3.2.2 Specific

Sector wise recommendations are given here under:

Social Mobilization/ Credit Management

- Lay more emphasis on community mobilization with their involvement in all stages and ascertaining the strategic gender needs of women folk.
- The Programme should explicitly focus on the record keeping at CO and Cluster levels, prepare maturity index for ranking of COs and improve the managerial skills of their leaders,
- There should be more focus on financial sustainability of the Clusters and developing a Business Plan for its microfinance programme

Agriculture Production/ Integrated Pest Management

- Establish Seed villages and have registered growers for seed multiplication of improved varieties for seed multiplication
- Educate the farmers in sowing of improved seeds and proven diversified cropping pattern by laying out demonstration plots along road sides, visits by progressive farmers at site and propagation of IPM technology in concentrated areas to have mass impact

Livestock Production

- Observe the adoption behaviour of new breeds in terms of their susceptibility to various diseases and productivity,
- Phased withdrawal of subsidized supply of Molasses blocks in a period of 2 years – 75% subsidy in year 1 and 25% in year 2

Watershed/ Range Management

- Have the visits of progressive farmers from adjoining valleys and the line departments (Livestock & Animal Husbandry, Agriculture Extension and Forestry) at sites where plantations are mature enough to have demonstrational effects,
- Educate COs/ livestock farmers about the grazing capacity of communal rangelands and motivate them to plan their herd size accordingly.

Irrigation Water

- Lay out demonstration plots to highlight the impact of HEIS technology,

- Publicize the adoption of HEIS by distributing leaflets/ brochures and involving Agriculture department Extension staff.

Social Sector, Gender & enterprise development

- Emphasis on trainings to CO members/ staff particularly book keeping and income generation activities,
- Concentrate on increased savings by members and prepare plan for internal lending.

Geographical Information System

- Make intensive use by establishing database and its analysis with the participation of M&E Specialist and other Sector Specialists.

3.3 References

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