



**Government of Sudan**

**United Nations Country Team**

**Sudan**  
**Millennium Development Goals**  
**Interim Unified Report**

*December 2004*

“We, heads of State and Government, have gathered at United Nations Headquarters in New York from 6 to 8 September 2000, at the dawn of a new millennium, to reaffirm our faith in the Organization and its Charter as indispensable foundations of a more peaceful, prosperous and just world. We will spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty, to which more than a billion of them are currently subjected. We are committed to making the right to development a reality for everyone and to freeing the entire human race from want. We resolve therefore to create an environment – at the national and global levels alike – which is conducive to development and to the elimination of poverty.”

*Millennium Declaration, 2000*

# Contents

|                                                                                              |             |
|----------------------------------------------------------------------------------------------|-------------|
| <b>Acronyms</b> .....                                                                        | <b>i</b>    |
| <b>Acknowledgements</b> .....                                                                | <b>iii</b>  |
| <b>Preface – Message from the Vice-President of the Republic of Sudan</b> .....              | <b>iv</b>   |
| <b>Message from the Resident Coordinator on behalf of the UN Country Team</b> .....          | <b>v</b>    |
| <b>Introduction</b> .....                                                                    | <b>vi</b>   |
| <b>Message from the Minister of the Ministry of International Cooperation</b> .....          | <b>viii</b> |
| <b>Section A</b> .....                                                                       | <b>ix</b>   |
| <b>The Millennium Development Goals in Sudan (not including SPLM-controlled areas)</b> ..... | <b>ix</b>   |
| <b>Development context</b> .....                                                             | <b>1</b>    |
| <b>Goal 1: Eradicate extreme poverty and hunger</b> .....                                    | <b>2</b>    |
| Poverty – status and trends .....                                                            | 2           |
| <i>Poverty status and trend using global indicators</i> .....                                | 3           |
| <i>Poverty status and trend using proxy indicators</i> .....                                 | 5           |
| Challenges .....                                                                             | 6           |
| Priority strategic interventions and recommendations .....                                   | 6           |
| Monitoring and evaluation environment .....                                                  | 7           |
| <b>Goal 2: Achieve universal primary education</b> .....                                     | <b>8</b>    |
| Universal basic education – status and trends .....                                          | 8           |
| Supporting environment and policies .....                                                    | 9           |
| Challenges .....                                                                             | 9           |
| Priority strategic interventions and recommendations .....                                   | 10          |
| Monitoring and evaluation environment .....                                                  | 11          |
| <b>Goal 3: Promote gender equality and empower women</b> .....                               | <b>12</b>   |
| Gender equality and empowerment of women – status and trends .....                           | 12          |
| Literacy .....                                                                               | 14          |
| Women in the labour force .....                                                              | 15          |
| Challenges .....                                                                             | 16          |
| Priority strategic interventions and recommendations .....                                   | 16          |
| Monitoring and evaluation environment .....                                                  | 17          |
| <b>Goal 4: Reduce child mortality</b> .....                                                  | <b>18</b>   |
| Child mortality – status and trends.....                                                     | 19          |
| Challenges .....                                                                             | 21          |
| Priority strategic interventions and recommendations .....                                   | 21          |
| Monitoring and evaluation environment .....                                                  | 22          |
| <b>Goal 5: Improve maternal health</b> .....                                                 | <b>23</b>   |
| Maternal health – status and trends.....                                                     | 23          |
| Challenges .....                                                                             | 25          |
| Priority strategic interventions and recommendations .....                                   | 25          |
| Monitoring and evaluation environment .....                                                  | 26          |
| <b>Goal 6: Combat HIV/AIDS, malaria and other diseases</b> .....                             | <b>27</b>   |
| HIV/AIDS control and prevention .....                                                        | 27          |
| Supporting environment and policies .....                                                    | 28          |
| HIV/AIDS interventions .....                                                                 | 28          |
| Challenges .....                                                                             | 28          |
| Priority strategic interventions and recommendations .....                                   | 29          |

|                                                                                      |           |
|--------------------------------------------------------------------------------------|-----------|
| Malaria control – status and trends .....                                            | 29        |
| Supporting environment and policies .....                                            | 30        |
| Challenges .....                                                                     | 30        |
| Priority strategic interventions and recommendations .....                           | 31        |
| TB control – status and trends .....                                                 | 32        |
| Supporting environment and policies .....                                            | 32        |
| Challenges .....                                                                     | 32        |
| Priority strategic interventions and recommendations .....                           | 33        |
| Monitoring and evaluation environment .....                                          | 33        |
| <b>Goal 7: Ensure environmental sustainability .....</b>                             | <b>34</b> |
| Environmental sustainability – status and trends .....                               | 34        |
| Supporting environment and policies .....                                            | 35        |
| Challenges .....                                                                     | 36        |
| Priority strategic interventions and recommendations .....                           | 36        |
| Sustainable access to safe drinking water .....                                      | 37        |
| Supporting environment/policies .....                                                | 38        |
| Challenges .....                                                                     | 38        |
| Improve the lives of slum dwellers – status and trends .....                         | 38        |
| Priority strategic interventions and recommendations for water and sanitation .....  | 39        |
| Monitoring and evaluation environment .....                                          | 40        |
| <b>Goal 8: Global partnership for development .....</b>                              | <b>41</b> |
| Global partnerships – status and trends .....                                        | 41        |
| Priority strategic interventions and recommendations .....                           | 42        |
| Youth unemployment – status and trends .....                                         | 43        |
| Strategic interventions and recommendations .....                                    | 44        |
| Affordable essential drugs .....                                                     | 44        |
| <i>Priority strategic interventions and recommendations</i> .....                    | 44        |
| Information and communications technologies: bridging the digital divide .....       | 45        |
| <i>Priority strategic interventions and recommendations</i> .....                    | 45        |
| Monitoring and evaluation environment .....                                          | 46        |
| <b>Section B .....</b>                                                               | <b>47</b> |
| <b>The Millennium Development Goals in South Sudan (SPLM-controlled areas) .....</b> | <b>47</b> |
| <b>Message from the Chairman, SPLM Economic Commission .....</b>                     | <b>48</b> |
| <b>The South Sudan MDG report .....</b>                                              | <b>49</b> |
| <b>Development context and key indicators .....</b>                                  | <b>50</b> |
| Demography and poverty .....                                                         | 50        |
| <b>Goal 1: Eradicate extreme poverty and hunger .....</b>                            | <b>52</b> |
| Poverty – status and trends .....                                                    | 52        |
| Population facing a food deficit .....                                               | 52        |
| <i>Malnutrition levels</i> .....                                                     | 52        |
| Challenges .....                                                                     | 53        |
| Supporting environment and policies .....                                            | 54        |
| Priority strategic interventions and recommendations .....                           | 54        |
| Monitoring and evaluation environment .....                                          | 55        |
| <b>Goal 2: Achieve universal primary education .....</b>                             | <b>56</b> |
| Primary education – status and trends .....                                          | 56        |
| <i>Net enrolment ratio</i> .....                                                     | 56        |
| <i>Proportion of pupils starting grade 1 who reach grade 5</i> .....                 | 56        |
| <i>Literacy rate of 15-24 year olds</i> .....                                        | 57        |
| Challenges .....                                                                     | 57        |
| <i>Increasing availability and access to education</i> .....                         | 57        |

|                                                                           |           |
|---------------------------------------------------------------------------|-----------|
| Supporting environment and policies .....                                 | 58        |
| Priority strategic interventions and recommendations .....                | 59        |
| Monitoring and evaluation environment .....                               | 60        |
| <b>Goal 3: Promote gender equality and empower women .....</b>            | <b>61</b> |
| Gender equality – status and trends .....                                 | 61        |
| <i>Ratio of girls to boys in primary and secondary education</i> .....    | 61        |
| <i>Ratio of literate females to males among 15-24 year-olds</i> .....     | 62        |
| <i>Share of women in wage employment</i> .....                            | 62        |
| <i>Proportion of seats held by women in the national Parliament</i> ..... | 63        |
| Challenges .....                                                          | 63        |
| Supporting environment and policies .....                                 | 63        |
| Key strategic interventions and recommendations .....                     | 64        |
| Monitoring and evaluation environment .....                               | 65        |
| <b>Goal 4: Reduce child mortality.....</b>                                | <b>66</b> |
| Child mortality – status and trends .....                                 | 66        |
| <i>Infant mortality rates</i> .....                                       | 66        |
| <i>Under-five mortality rates</i> .....                                   | 66        |
| Challenges .....                                                          | 67        |
| Supporting environment and policies .....                                 | 67        |
| Key strategic interventions and recommendations .....                     | 68        |
| Monitoring and evaluation environment .....                               | 68        |
| <b>Goal 5: Improve maternal health.....</b>                               | <b>69</b> |
| Maternal Health – status and trends .....                                 | 69        |
| <i>Maternal mortality ratio</i> .....                                     | 69        |
| <i>Proportion of births attended by skilled health personnel</i> .....    | 69        |
| <i>Health infrastructure</i> .....                                        | 69        |
| <i>Family planning services</i> .....                                     | 69        |
| <i>Antenatal and postnatal care</i> .....                                 | 70        |
| Challenges .....                                                          | 70        |
| Supporting environment and policies .....                                 | 70        |
| Key Strategic Interventions and recommendations .....                     | 71        |
| Monitoring and evaluation environment .....                               | 71        |
| <b>Goal 6: Combat HIV/AIDS, malaria and other diseases .....</b>          | <b>72</b> |
| HIV/AIDS – Status and Trends .....                                        | 72        |
| <i>HIV prevalence rates</i> .....                                         | 72        |
| Factors affecting HIV/AIDS transmission in South Sudan .....              | 73        |
| <i>Orphans</i> .....                                                      | 74        |
| Challenges .....                                                          | 74        |
| Supporting environment and policies .....                                 | 74        |
| Key strategic Interventions and recommendations .....                     | 74        |
| Monitoring and evaluation environment .....                               | 75        |
| Malaria.....                                                              | 75        |
| Tuberculosis .....                                                        | 76        |
| Other diseases .....                                                      | 76        |
| Challenges .....                                                          | 77        |
| Supporting environment and policies .....                                 | 77        |
| Key strategic interventions and recommendations .....                     | 77        |
| <i>Tuberculosis</i> .....                                                 | 77        |
| <i>Malaria</i> .....                                                      | 78        |
| <i>Other major diseases</i> .....                                         | 78        |
| Monitoring and evaluation environment .....                               | 78        |
| <b>GOAL 7: Ensure environmental sustainability .....</b>                  | <b>79</b> |
| Environmental sustainability – status and trends .....                    | 79        |
| Challenges .....                                                          | 79        |

|                                                                                        |            |
|----------------------------------------------------------------------------------------|------------|
| Supporting environment and policies .....                                              | 79         |
| Key strategic Interventions and recommendations .....                                  | 79         |
| Monitoring and evaluation environment .....                                            | 80         |
| Access to improved drinking water – status and trends.....                             | 80         |
| Access to an improved water source .....                                               | 81         |
| Access to improved sanitation .....                                                    | 81         |
| Challenges .....                                                                       | 81         |
| Supporting environment and policies .....                                              | 82         |
| Key strategic interventions and recommendations .....                                  | 82         |
| Monitoring and evaluation environment .....                                            | 83         |
| <b>GOAL 8: Develop a global partnership for development .....</b>                      | <b>84</b>  |
| Global Partnership – status and trends.....                                            | 84         |
| <b>Conclusion.....</b>                                                                 | <b>86</b>  |
| <b>Annex A – MDGs in northern Sudan – status at a glance .....</b>                     | <b>86</b>  |
| <b>Annex B – MDGs in South Sudan (SPLM-controlled areas) – status at a glance.....</b> | <b>91</b>  |
| <b>Bibliography .....</b>                                                              | <b>87</b>  |
| <b>Annex C – Presidential Decree.....</b>                                              | <b>98</b>  |
| <b>References .....</b>                                                                | <b>101</b> |

## Figures

|                                                                                                |    |
|------------------------------------------------------------------------------------------------|----|
| Figure 1 – Trend in undernourishment, northern Sudan .....                                     | 4  |
| Figure 2 – Progress toward halving undernourishment, northern Sudan .....                      | 4  |
| Figure 3 – Regional variations in under-five wasting, northern Sudan .....                     | 4  |
| Figure 4 – Progress towards gross enrolment target.....                                        | 8  |
| Figure 5 – Primary school attendance by state, 2000.....                                       | 9  |
| Figure 6 – Enrolment in basic education, northern Sudan 1997-2004.....                         | 13 |
| Figure 7 – Secondary enrolment 1997-2003.....                                                  | 14 |
| Figure 8 – <i>Female</i> literacy rate, for population aged 15+.....                           | 14 |
| Figure 9 – Health expenditure as a proportion of GDP .....                                     | 19 |
| Figure 10 – Infant and under-5 mortality rates by state .....                                  | 19 |
| Figure 11 – Maternal mortality trends and goal.....                                            | 23 |
| Figure 12 – Malaria case fatality rate among hospitalized patients .....                       | 30 |
| Figure 13 – Proportion of the population with access to an improved drinking water source..... | 37 |
| Figure 14 – Proportion of population with access to sanitation (%), 2000 .....                 | 39 |
| Figure 15 – Unemployment for people aged 15–24 years of age, by educational level .....        | 43 |

|                                                                                                |    |
|------------------------------------------------------------------------------------------------|----|
| Figure 16 – Maternal mortality ratios, South Sudan, 2000 (deaths per 100,000 live births)..... | 69 |
|------------------------------------------------------------------------------------------------|----|

## Tables

|                                                                                       |    |
|---------------------------------------------------------------------------------------|----|
| Table 1 – Quality of indicators on poverty and hunger, northern Sudan.....            | 3  |
| Table 2 – Trend in undernourishment, Sudan.....                                       | 3  |
| Table 3 – National proxy indicators for poverty, northern Sudan.....                  | 5  |
| Table 4 -- Gross enrolment, 1990-2003.....                                            | 8  |
| Table 5 – Growth in enrolment in basic education, northern Sudan 1997-2003.....       | 13 |
| Table 6 – Intake and enrolment in basic education, northern Sudan 2002/03.....        | 13 |
| Table 7 – Growth in secondary enrolment, northern Sudan 1997-2003.....                | 14 |
| Table 8 – Indicators of women’s empowerment.....                                      | 15 |
| Table 9 – Women’s share of different types of employment.....                         | 15 |
| Table 10 – Women’s representation in the National Parliament.....                     | 16 |
| Table 11 – Unemployment for people aged 15–24 years of age, by educational level..... | 43 |
| Table 12 – Key socio-economic indicators for South Sudan.....                         | 51 |
| Table 13 – Malnutrition levels in South Sudan between 1995 and 2001.....              | 53 |
| Table 14 – Basic data on education in South Sudan.....                                | 56 |
| Table 15 – Enrolment in primary school by grade in South Sudan, 2003.....             | 57 |
| Table 16 – Indicators for gender equality and women’s empowerment in South Sudan..... | 61 |
| Table 17 – Absolute gender gap in South Sudan.....                                    | 62 |
| Table 18 – Indicators for child mortality in South Sudan, 2001.....                   | 66 |
| Table 19 – Key indicators for maternal health in South Sudan, 2000.....               | 69 |
| Table 20 – Indicators for HIV/AIDS in South Sudan, 2001.....                          | 72 |
| Table 21 – HIV prevalence at selected sites, South Sudan, 1997-2002.....              | 72 |
| Table 22 – HIV prevalence rates among Sudanese in refugee camps.....                  | 73 |
| Table 23 – Key indicators on malaria in South Sudan.....                              | 75 |
| Table 24 – Indicators for water and sanitation, South Sudan, 2000.....                | 80 |

## Acronyms

|          |                                                                   |
|----------|-------------------------------------------------------------------|
| AET      | Africa Educational Trust                                          |
| ALP      | Accelerated Learning Programme                                    |
| ASAP     | Consolidated Appeal for the Sudan Assistance Programme            |
| ARC      | American Refugee Committee                                        |
| ARI      | Acute respiratory infection                                       |
| BCC      | Behaviour change communication                                    |
| BOS      | Bank OF Sudan                                                     |
| CBS      | Central Bureau of Statistics                                      |
| CBO      | Community-based organization                                      |
| CDC      | Centre for Disease Control                                        |
| COMESA   | Common Market for Eastern and Southern Africa                     |
| CPA      | Comprehensive Peace Agreement                                     |
| DOTS     | Directly observed therapy short course                            |
| EFA      | Education for All                                                 |
| EPI      | Expanded Programme on Immunization                                |
| EWARN    | Early Warning Alert and Response Network                          |
| FAO      | Food and Agriculture Organization                                 |
| FMOA     | Federal Ministry of Agriculture                                   |
| FMOAR    | Federal Ministry of Animal Resources                              |
| FMOE     | Federal Ministry of Education                                     |
| FMOH     | Federal Ministry of Health                                        |
| FMOLAR   | Federal Ministry of Land and Resources                            |
| FMOWSD   | Federal Ministry of Welfare and Social Development                |
| GAM      | Global acute malnutrition                                         |
| GAVI     | Global Alliance for Vaccine and Immunization                      |
| GDP      | Gross domestic product                                            |
| GER      | Gross enrolment ratio                                             |
| GFATM    | Global Fund to fight AIDS, TB and Malaria                         |
| GOS      | Government of Sudan                                               |
| GOSS     | Government of South Sudan                                         |
| HIPC     | Heavily Indebted Poor Countries                                   |
| HIV/AIDS | Human immuno-deficiency virus/Acquired immuno-deficiency syndrome |
| HDI      | Human development index                                           |
| IDP      | Internally displaced person                                       |
| ICPD     | International Conference on Population and Development            |
| ICT      | Information and communications technology                         |
| IMF      | International Monetary Fund                                       |
| IMCI     | Integrated management of childhood illnesses                      |
| IMDGR    | Interim Millennium Development Goals Report                       |
| IMR      | Infant mortality rate                                             |
| IPRSP    | Interim Poverty Reduction Strategy Paper                          |
| IPT      | Intermittent preventive treatment                                 |
| IRC      | International Rescue Committee                                    |
| ITN      | Insecticide-treated net                                           |
| JAM      | Joint Assessment Mission                                          |
| KABP     | Knowledge, attitude, behaviour and practice                       |
| LLITN    | Long-lasting insecticide-treated net                              |
| MCHW     | Maternal and child health worker                                  |
| MD       | Millennium Declaration                                            |
| MICS     | Multiple Indicator Cluster Survey                                 |
| MMNT     | Measles and maternal neonatal tetanus                             |



|        |                                                             |
|--------|-------------------------------------------------------------|
| MMS    | Migration and Manpower Survey                               |
| MMR    | Maternal mortality ratio                                    |
| MOLAR  | Ministry of Labour and Administrative Reform                |
| MDG    | Millennium Development Goal                                 |
| MDGR   | Millennium Development Goals Report                         |
| MLFS   | Migration and Labour Force Survey                           |
| MRDC   | Ministry of Rural Development and Cooperatives              |
| NCS    | National Comprehensive Strategy                             |
| NER    | Net enrolment ratio                                         |
| NID    | National Immunization Day                                   |
| NPC    | National Population Council                                 |
| NPA    | Norwegian People's Aid                                      |
| NSNAC  | New Sudan National AIDS Council                             |
| OCHA   | Office for Coordination of Humanitarian Affairs             |
| OLS    | Operation Lifeline Sudan                                    |
| ORT    | Oral Rehydration Therapy                                    |
| PES    | Poverty Eradication Strategy                                |
| PHC    | Primary health care                                         |
| PHC    | Primary health care                                         |
| PTA    | Parent-teacher association                                  |
| PLWHA  | People living with HIV/AIDS                                 |
| PMTCT  | Prevention of mother-to-child transmission                  |
| PTA    | Parent-teacher association                                  |
| RPI    | Reproductive poverty index                                  |
| SAAR   | Secretariat for Agriculture and Animal Resources            |
| SAM    | Severe acute malnutrition                                   |
| SBA    | School Baseline Assessment                                  |
| SNACP  | Sudan National AIDS Control Programme                       |
| SOE    | Secretariat of Education                                    |
| SOH    | Secretariat of Health                                       |
| SRRA   | Sudan Relief and Rehabilitation Association                 |
| STI    | Sexually transmitted infection                              |
| SWGWCW | Secretariat of Women, Gender and Child Welfare              |
| SPLM   | Sudanese People's Liberation Movement                       |
| SPLA   | Sudan People's Liberation Army                              |
| SSCSE  | Southern Sudan Centre for Statistics and Evaluation         |
| SWGU   | Sudanese Women's General Union                              |
| TFR    | Total Fertility Rate                                        |
| TGG    | Thematic Goal Group                                         |
| TBA    | Traditional birth attendant                                 |
| TB     | Tuberculosis                                                |
| TT     | Tetanus toxoid                                              |
| UNFPA  | United Nations Population Fund                              |
| UNGASS | United Nations General Assembly Special Session on HIV/AIDS |
| UNICEF | United Nations Children's Fund                              |
| UNIDO  | United Nations Industrial Development Organization          |
| VCT    | Voluntary counselling and testing                           |
| WES    | Water and environmental sanitation                          |
| WB     | World Bank                                                  |
| WFP    | World Food Programme                                        |
| WHO    | World Health Organization                                   |

## Acknowledgements

The finalization of section A of this report has been the outcome of intensive collaboration and partnership between the Government of Sudan (GOS), UN agencies, academia and civil society. The report has enjoyed the personal support of H.E. the former Assistant President and H.E. the Minister of International Cooperation.

The initial assessment studies of each of the goals in this section of the report were the result of hard work by eight Thematic Goal Groups (TGGs) created by the Resident Coordinator (RC) in 2003 to work under the umbrella of the UN Country Team. The Ministry of Health led the work on MDGs 4, 5 and 6 with the collaboration of relevant UN agencies (UNICEF, WHO and UNFPA). The Ministry of Education and UNICEF collaborated closely to assess progress on MDG 2. FAO, in collaboration with the Ministry of Agriculture and in coordination with the Ministry of Finance and the PRSP team assessed the status of MDG 1. The WFP, the lead agency on MDG 3, worked closely with the Ministry of Welfare and Social Development and the Ahfad University for Women to provide an in-depth assessment of the status of women under MDG 3. As lead agency on MDG 8, UNIDO worked closely with a number of concerned ministries and research institutions to assess progress on the various target areas of MDG 8.

A seventeen-member Technical Committee and a nine-member Ministerial Committee, established by a presidential decree in 16 June 2004, reviewed, finalised and cleared the report in its final version. The Technical Committee members attended several meetings to review successive drafts of the report up to its finalization. The Department for External Resources of the Ministry of International Cooperation greatly facilitated the work of the Technical Committee and provided chairmanship, secretarial and logistical support. The JAM team reviewed the document to technically ensure synchronization and harmony with the JAM report. The MDGR process also benefited from the support of the Regional Bureau for Arab States (RBASE).

Section B of this report, which covers SPLM-controlled areas of South Sudan, has been prepared by the Southern Sudan Centre for Statistics and Evaluation (SSCSE) and UNDP's South Sudan sub-office based in Nairobi, on behalf of the Sudan People's Liberation Movement (SPLM). It has been a truly collaborative effort, drawing on consultations with the constituent Secretariats of the SPLM, UN agencies, the World Bank and partner agencies. The report was reviewed and validated through bilateral discussions with stakeholders, particularly the counterparts, NSCSE, as well as with partners and UN agencies such as UNOCHA, the World Bank, UNICEF and WHO. Primary background material was provided by NSCSE, specifically its recent publication facilitated by UNICEF, *Towards a Baseline: Best Estimates of Social Indicators for Southern Sudan*, UNOCHA STARBASE and MDG summary reports, and supplemented by documentation from the SPLM Secretariats, UNICEF, WFP, FAO, WHO, the Joint Assessment Mission and the World Bank. The report also benefited from contributions from individual members of the humanitarian community. Their support is duly acknowledged.

## **Message of the Vice-President**

In September 2000, Sudan together with 189 other countries signed the Millennium Declaration at the United Nations millennium summit. The Declaration defined the themes and the specific millennium development goals and made provision for the countries to develop progress reports on the crystallization of the eight themes proclaimed by the Declaration in order to encourage a favourable environment for development and poverty reduction.

The Comprehensive Peace Agreement signed on the 9<sup>th</sup> of January 2005 between the government of Sudan and Sudan Peoples Liberation Movement/Army, which ended the 21 years of civil war between Sudan's north and south, has triggered many opportunities for positive change, and has brought stability and security to the people of Sudan, which paved the way for development and reconstruction.

For Sudan, the MDGs meet the country's aspiration for welfare through development which can only effectively be achieved through the implementation of the poverty eradication strategy and the joint assessment mission report (JAM), both of which were developed in a participatory way involving all stakeholders from government, the civil society, academia, private sector and the international community. Sudan Interim constitution 2005 has enshrined in its Bill of Rights the Government commitment to social inclusion, basic education, basic health services and the gender equality.

The global MDGs effort rests on the premise that the participation of every member<sup>4</sup> of society is essential to the attainment of its noble goals. Campaigns are therefore required to mobilize society and bring together civil society, government, private sector, the general public and media into an integrated whole.

With the support of the UNDP and other United Nations Organizations, the first MDG report in Sudan will make it possible to highlight the stages of progress and to provide a new opportunity to mobilize the stakeholders to play their role in ensuring the success of our effort towards achieving the MDGs by 2015.

I would like to extend my thanks to all our partners in all spheres who have contributed to this noble task.

**Honourable Ali Oman Mohamed Taha**

**Vice President.**

## **Message from the Resident Coordinator on behalf of the UN Country Team**

Sudan has been at war with itself for most of the period since independence. It is thus not surprising that it has not been able, so far, to respond adequately to the aspirations of its people for a dignified, healthy and productive life. Today, Sudan stands at a crossroad between peace and conflict, stability and insecurity. The Sudan has taken the first vital step in the direction of peace and development with the historic signing of the Comprehensive Peace Agreement with the SPLM.

The prospect of peace in the Sudan is creating an unprecedented opportunity to expand the breadth and depth of Sudan's global partnerships, to consolidate peace and security for its people, and to transform their lives on the path to recovery and development. The high economic growth record that the country has achieved over the past decade and the abundance of land and natural resources, including oil, Sudan has been blessed with will be fully and equitably shared by all Sudanese and will specifically positively impact on the lives of the marginalized and the poor.

Already, and as part of the ongoing peace process and in preparation for the reconstruction, recovery and development challenges, the concerned parties in Sudan agreed on a National Poverty Eradication Strategy Concept Note<sup>1</sup> and are jointly finalizing the Joint Assessment Mission report which assesses priority needs in post-conflict Sudan. Both key documents are very much based on the MDGs as a framework.

Each of the MDGs and targets are still potentially achievable by the set date of 2015 in spite of adverse circumstances. The Sudanese economy is, more than any other post-conflict economy, well equipped to realize substantial catch-up growth provided that four key and interlinked factors prevail, and if the political will and resolve are firm. First and foremost, ending all internal conflict that continues to bleed the country dry of its potential for development; second, putting in place an enabling environment where the rule of law reigns supreme and where each and every citizen is equal regardless of religion, gender or ethnic background; third, drastically re-orienting development planning policies to make them more pro-poor in orientation and substance and re-directing the financial and human resources necessary for implementing those policies and plans. The last but equally important factor vital to achieving the MDGs by the prescribed date is the re-building of strong partnerships with the international community whose goodwill should be forthcoming and genuine in helping the Sudanese people consolidate peace through development and to gradually shifting the partnership away from humanitarian assistance to reconstruction and development.

The UN family is committed to coordinating its effort in support of achieving the eight MDGs through enhancing national capacities for development planning and management, including the capacity for policy analysis, monitoring and evaluation, and for coordination. The UN system is also committed to contributing to universal and equitable development under the rule of law and good governance in the post-conflict environment.

**Manuel Aranda da Silva, UN System Resident Coordinator, Khartoum**

## Introduction

In the year 2000, representatives of 189 member countries of the United Nations, including the Sudan, signed the Millennium Declaration. The Millennium Declaration was translated into eight time-bound development goals that represented the basic needs and conditions for human development: eradication of extreme poverty and hunger; achievement of universal primary education; promotion of gender equality and empowerment of women; reduction of child mortality; improvement of maternal health; combating HIV/AIDS, malaria, TB and other diseases and ensuring environmental sustainability. For each goal a number of targets were specified and for each target a number of quantitative indicators were identified. The year 2015 was earmarked as the last year of a timeframe for achieving the specified targets from their initial values in the year 1990.

The political and security situation as well as the quality and availability of data, particularly in conflict areas, mandated that this first Millennium Development Goals Report (MDGR) be produced only as interim. The fourth population census was undertaken in 1993 and the fifth census, which should have been carried out in 2003 was not feasible because of the conflict. With the signature of the Comprehensive Peace Agreement (CPA), the top priority on the reconstruction and development agenda of both the national Government and the Government of South Sudan is the updating of vital statistics and data. This interim report will, therefore, be updated and integrated as soon as more accurate data and statistics are available to reflect a more accurate assessment of the status of the MDGs nationwide including the south.

The above-mentioned political and data situation also mandated the form of this first MDGR for the Sudan. While the MDGR is produced as a unified report, it is composed of two separate sections: section A covering the Sudan and section B covering the South Sudan SPLM-controlled areas.

The launch of the 2003 *Human Development Report* (HDR) in February 2004 gave added impetus to the process of preparing the first MDGR for the Sudan. The launch took place in Khartoum under the patronage of the Presidency and with full participation of key partners such as the Higher Council for Strategic Planning and the Ministry of International Cooperation as well as a wide representation of non-governmental organizations such as the UN Association and was inaugurated by the Assistant President. The event was well attended, not only by policy makers and donors but also by civil society. The event, held in Khartoum, was web-cast to other areas of Sudan, demonstrating how technology can be used creatively for advocacy and outreach in a context like Sudan. The MDGs obtained good coverage from the press and other media together with the 2003 HDR. As a result of the launch, the Government pledged full support to the production of an MDG report for the first time. The official commitment by the GOS to the MDGR greatly facilitated the formation in June 2004 of a high-level ministerial committee, and a multi-sectoral technical committee that took forward the work on the MDGR. UNDP attended both government committees' meetings as facilitator and catalyst to the MDGR preparation process. UNDP also played a coordination role vis-à-vis the UN agencies through convening coordination meeting and through supporting advocacy and technical workshops/meetings with relevant lead UN agencies designated by the Resident Coordinator (RC).

The MDGs advocacy and reporting process was also extended to the South. UNDP supported the participation of some of the SPLM officials in global MDGs events. Section B of the report was prepared to cover specifically the South Sudan, SPLM-controlled areas. Senior SPLM officials in various secretariats, along with UN agencies, the World Bank and NGOs were consulted in the production of section B and contributed through the provision of sector-specific documentation or feedback. It is envisaged that the SPLM will establish a consultative mechanism on the MDGs with representatives of the relevant institutions of the Government of South Sudan (GOSS), the UN system, civil society and the private sector to foster understanding of their significance to the development strategy for South Sudan.

The Thematic Goal Groups (TGGs) under an RC-designated lead UN agency played a major role in technically backstopping the review and situation analysis of progress on each of the goals. The result of hard work by the GOS, TGGs, lead UN agencies and UNDP is that Sudan has a current credible, national report that will serve as an important base for future advocacy and monitoring of the MDGs.

It is planned that in 2005, the MDGR 'process' will go down to the regional level by initiating regional MDGR processes in three/four pilot regions, particularly conflict-affected ones. Civil society is expected to participate and monitor progress on implementing MDGs targets. Improvement in security in 2005 is expected to further enhance the quality of data and consequently assessment of the status of the MDGs nationwide.

## **GOS introduction to Section A**

### **Message from the Minister of the Ministry of International Cooperation**

The first Millennium Development Goals Report (MDGR) for Sudan, 2004, has been prepared under the joint effort, collaboration and partnership between the Government of Sudan, UN Agencies and Civil Societies under the leadership and guidance of the Ministry of International Co-operation.

In the preparation of the MDGR, information has been collected from numerous reliable resources, including Safe Motherhood Survey (SMS) the Multi indicators Clusters Survey (MICS), the Central Bureau of Statistics, Ministry of Health, ministry of Labour and Administrative Reform, Ministry of Agriculture, Ministry of Education, and Ministry of welfare and Social Development.

The initial findings of the MDGR were presented in a National Workshop attended by senior level authorities from the Government, the UN Agencies, the NGOs and the Civil Society. Comments and additions by participants have also been incorporated in the report.

The MDGR has documented the level as well as the recent trends for all of the MDG targets. The gaps and disparities within the country and between regions will be narrowed in order to reach the MDGs targets, improve people's every day lives, strengthen security and achieve sustainable human development.

Resources from donors in addition to national allocation should be increased to achieve the MDGs by 2015.

I would like to express my thanks and gratitude to all those who contributed in the production of this report.

**Yousif Sulieman Takana**

**Minister of the Ministry of International Cooperation**

## **Section A**

### **The Millennium Development Goals in Sudan** (Not including SPLM-Controlled Areas)



## Development context

| <i>Indicator</i>                                         | <i>Value</i>    | <i>Year</i> |
|----------------------------------------------------------|-----------------|-------------|
| Population size (millions)                               | 29,146          | 2004        |
| Population growth rate (%)                               | 2.6             | 1998-2003   |
| Life expectancy at birth (years)                         | 55              | 2003        |
| GDP per capita (\$)                                      | 365             | 2001        |
| Prevalence of HIV/AIDS in adult population age 15-49 (%) | 1.6             | 2003        |
| Contraceptive prevalence (women age 15-49) (%)           | 7               | 2004        |
| population with access to improved water supply (%)      | 70              | 2004        |
| Population with access to improved sanitation (%)        | 64              | 2004        |
| Population undernourished (%)*                           | 26              | 2000        |
| Percentage of malnourished under five children (%)       | 18 <sup>2</sup> | 2000        |
| Infant mortality rate (per 1,000 live births)*           | 68              | 2000        |
| Children immunized against measles (%)                   | 50              | 2000        |
| Gross enrolment rate in primary education (%)            | 59.6            | 2004        |
| Youth literacy rate (15 -24 age ) (%)                    | 78 <sup>3</sup> | 2003        |
| Ratio of girls to boys in primary education (%)          | 88              | 2000        |
| Under five mortality rate (per 1,000 live births)        | 104             | 1999        |
| Births attended by skilled health staff (%)              | 57              | 2004        |
| Maternal mortality rate (per 100,000 live births)        | 509             | 1999        |
| Fixed lines and mobile telephone subscribers per 1000    | 46.6            | 2003        |

Sources: CBS/UNFPA Population data sheet 2004, MICS, SMS, World Bank Country Economic Memorandum 2001, JAM Report 2005; FMOH; FMOE annual statistics 2004, World Bank “Sudan Development Outcomes and Pro-Poor Reforms” 2003

Sudan is in line with the general trends of sub-Saharan Africa in its rate of progress towards the MDGs, yet it represents a special case both in terms of the tremendous challenges it faces and the unlimited opportunities available. Sudan is endowed with rich resources: vast areas of agricultural land; extensive water resources and the River Nile; a wealth of livestock of all kinds; and mineral and other underground resources including oil and gold. Despite the emerging oil sector, the core of Sudan’s economy is mainly agricultural. Agriculture poses as the main driving force of the economy and accounts for 29% of GDP.

At the same time, the country suffered from conflict and political complexities that posed a formidable challenge to achieving progress on the MDGs and diverted the focus of its global partnerships from investment and development to humanitarian assistance. The decades-long conflict in the South had an extremely negative impact on the country as a whole - south and north – though in varying degrees. In addition to conflict, centre-biased development policies have also contributed to massive urban-rural migration, placing additional pressure on already weak social service infrastructures.

During the 1970s and 1980s the Sudanese economy suffered from negative growth rates and internal and external imbalances. However, important economic gains were achieved through the macro-economic stabilization that started in the second half of the 1990s and the subsequent economic recovery. In contrast to the challenges faced by many post-conflict countries, the macro-economic fundamentals are stable, except for Sudan’s large stock of external debt most of which is in arrears. The total development budget increased from 1% to 3.5% of GDP during 1998 - 2001<sup>4</sup>.

The cost of stabilization was high, especially in terms of access to services, the returns to economic growth were limited by population growth, and public debt levels are high and unsustainable. Moreover, growth has been geographically concentrated in central states around Khartoum, which further boosted regional disparities. While successive waves of liberalization had a positive impact on growth generally, they had a negative impact on the irrigated sub-sector, since irrigation schemes were privatised without

proper study of how to effectively involve the private sector. Moreover, the war and the deteriorating security situation in parts of the country were costly depriving the social and productive sector of resources. This is particularly true for the agricultural sector, which still accounted for 29% of GDP and remains the main source of income for the majority of the rural population in the north.<sup>5</sup> High economic growth – an outstanding average of over 7% during 1995-2004 - has yet to be translated into effective progress in implementing the MDGs targets.

## **Goal 1: Eradicate extreme poverty and hunger**

**Target 1:** Halve between 1990 and 2015, the population whose income is less than one dollar per day

**Target 2:** Halve, between 1990 and 2015, the proportion of people who suffer from hunger

### **Poverty – status and trends**

There is very little information and data on the extent of income poverty in the Sudan. Although several attempts have been made to improve both the availability and quality of such policy-oriented data – which are generally district based – the national-level statistical estimations derived from such data are at best tentative and speculative. Data and information used in the report have been borrowed from different sources which are non-poverty specific and outdated surveys for assessing progress in achieving the MDGs for which there are no systematic data and information for the whole of Sudan since 1978.

Hence, poverty research at the national level in Sudan has tended to make use of data supplied as a by-product of surveys that were carried out at different times and whose principal objectives were not poverty-specific in either focus or design. These were: the *1992 Household Survey*<sup>6</sup> (mainly for northern Sudan); the *Safe Motherhood Survey*<sup>7</sup>, 1999, carried out by the CBS in collaboration with UNFPA and the *2000 Multiple Indicator Cluster Survey (MICS)*<sup>8</sup> carried out in collaboration with UNICEF. All these surveys were confined to northern Sudan and, at best, some areas under government control in the south.

The ongoing process of preparing the Interim Poverty Reduction Strategy Paper (IPRSP) has to do with borrowing from non-poverty specific surveys the related poverty data from a human deprivation point of view for measuring poverty and to define indicators suitable to the Sudanese context. In this regard, it has to be remembered that the information and data available represent non-oil dates, and thus they do not represent the oil periods of today where data and information are not yet available.

In any case, given the quality of available data, money-metric measures of poverty may be of limited use at this stage. Hence, this report emphasizes the other face of poverty – hunger; and measures progress towards Goal 1 using Target 2 – halving, between 1990 and 2015, the proportion of people who live under the specified food poverty line.

Sudan is primarily an agricultural country with approximately 67% of the Sudanese deriving their livelihood from it. In 2001, agriculture accounted for about 36% of the country's GDP<sup>9</sup>, and more than 90% of the non-oil export income. Moreover, agriculture contributes about two-third of employment opportunities and supplies approximately 60% of the raw materials needed by the industrial sector.

On the one hand, Sudan has good agricultural potential. It has diverse climates and soils and adequate water supplies – through rainfall, rivers and underground water. Sudan also has huge animal wealth estimated at about 130 million heads of cattle, sheep, goats and camels<sup>10</sup> with adequate and variable quantities of animal feed.

On the other hand, Sudan suffered negatively from civil conflicts. These conflicts in its southern regions as well as the more recent one in its western region of Darfur, have affected all aspects of life in areas resulting in massive displacement and migration from conflict-stricken areas to major cities in the northern

and central parts of the country – further eroding the capacities of already weak and vulnerable social infrastructure. Rural poverty is not, however, the result of conflict alone but also partly an outcome of post-independence development strategies that have had an urban bias and tended to neglect the traditional agricultural sector on which the majority of the population depend.

This has resulted in dire poverty. UNDP’s 2003 human development index, which did not include SPLM-controlled areas of South Sudan, ranked Sudan 138<sup>th</sup> out of 175 countries. Despite data limitations, coverage, and eventually controversies, proxy national-level data estimates tell more about conditions of endemic hunger. Recent nutrition data from the federal Ministry of Health show that the global acute malnutrition rate (GAM) in 1997-2001 was 26% – 19.5% for the north and 32.4% for the south<sup>11</sup>. Food security has also been weak during the 1990s, with an average composite indicator of 60.29.

National-level Goal 1 indicators identified and developed in this report help measure food poverty and food insecurity over time. Using 1990 as the reference year, targets and key indicators have been set for 2015. Table 1 summarizes the quality of information in Sudan in relation to global G1 indicator of hunger.

Table 1 – Quality of indicators on the hunger target, northern Sudan

| Policy target                                        | Key indicators                                     | Quality of information |      |      |
|------------------------------------------------------|----------------------------------------------------|------------------------|------|------|
|                                                      |                                                    | Strong                 | Fair | Weak |
| Halve the proportion of people suffering from hunger | % Of population undernourished in total population |                        | F    |      |
|                                                      | % Of children under-5 underweight for age          | S                      |      |      |

Note: \* S = strong: substantial progress made; F = Fair: available but fragmentary; W = Weak; little or no data.

#### Poverty status and trend using global indicator of hunger

Figure 1 indicates progress during the 1990s on the achievement of Goal 1 using the hunger global indicator and taking 1990 as the reference year. Between 1990 and 2000, the proportion of the population undernourished declined from 31% to 26%, and over the same period the under-5 malnutrition rate fell from 33% to 18%. Figure 2 indicates that Sudan is on track for halving the proportion of population who suffer from hunger.

Table 2 – Trend in under nourishment, Sudan

|      | % Undernourished in total population <sup>12</sup> | % Under-5 children who are underweight for age |
|------|----------------------------------------------------|------------------------------------------------|
| 1990 | 31                                                 | 33                                             |
| 1995 | 22                                                 | 17                                             |
| 2000 | 26                                                 | 18                                             |

Sources: FAO, 2003; FMOH, 2003

Figure 1 – Trend in under nourishment, northern Sudan

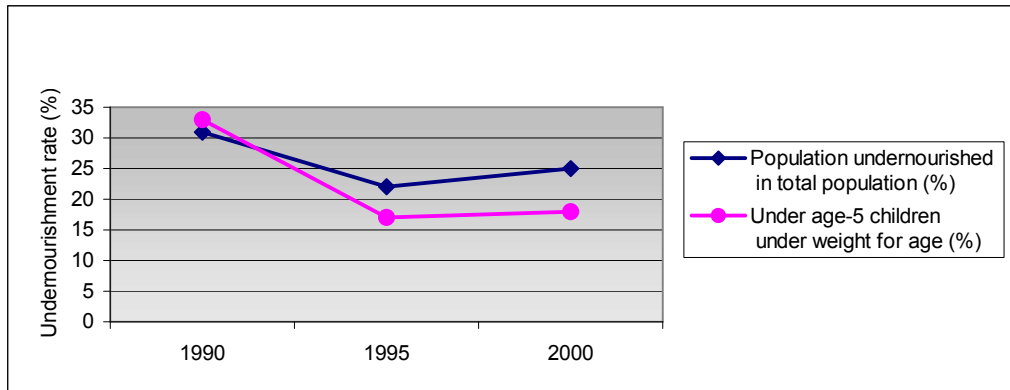
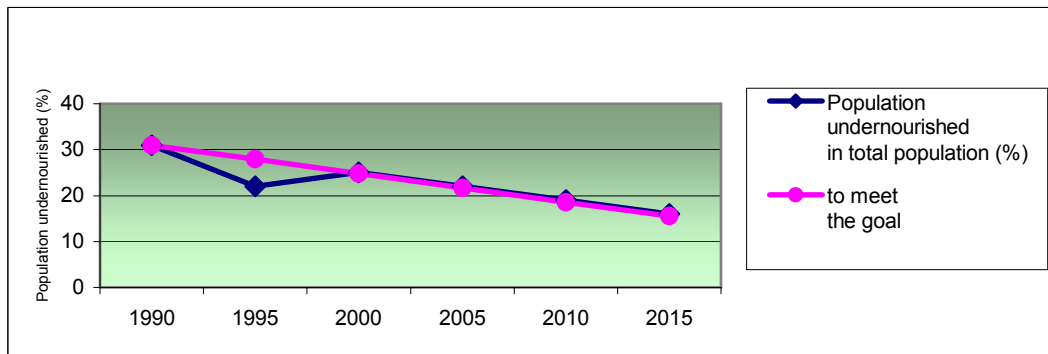
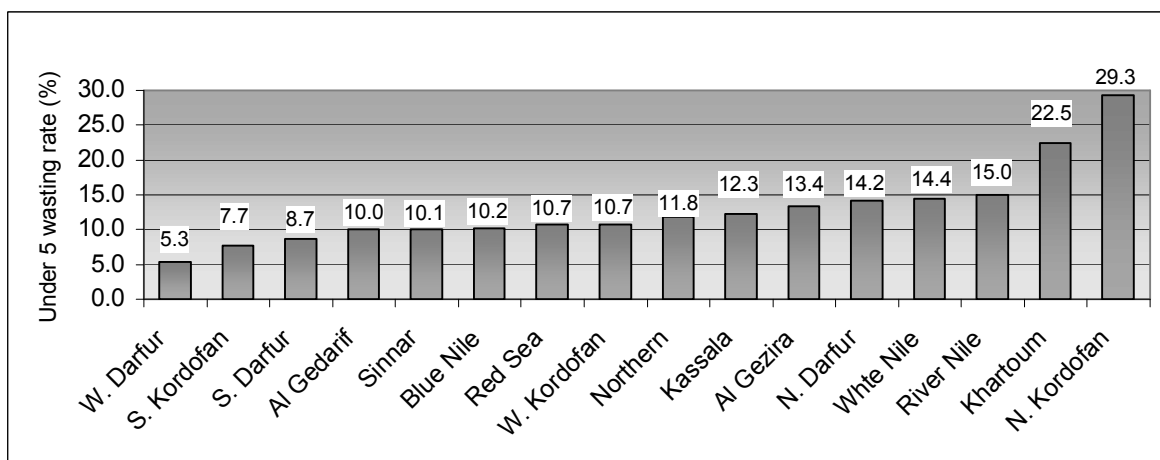


Figure 2 – Progress toward halving under nourishment, northern Sudan



These figures however do not reveal regional disparities in malnutrition, particularly amongst children (Figure 3).

Figure 3 – Regional variations in under-five wasting, northern Sudan



## Poverty status and trend using proxy indicators

While much progress has been made in measuring and analyzing income poverty, more effort is needed to measure and study the non-income dimensions of poverty. This will mean defining indicators where needed and gathering data so as to assemble comparable and high-quality social indicators. These should include: access to services and infrastructure; access to assets or social capital; unemployment rates; and changes in food aid requirements. In addition to expanding the range of poverty indicators, work is also needed to integrate data from sample surveys with information obtained through more participatory techniques.

Although the data on poverty and hunger in general – and in the conflict-stricken and disaster-affected regions (South, Darfur and the Eastern regions) in particular – are generally inadequate both in volume and coverage, they can still be useful for assessment needs and policy analysis. A number of proxy indicators have therefore been developed at national and regional levels for the purpose of situation analysis and to offer quick signals for monitoring Goal 1 targets.

Throughout the period 1998-2003 national food aid requirements remained high – associated with high fluctuations in the availability of sorghum and millet in the main Sudanese markets. The basic reason for this situation is actually climate, and hence crop fluctuations and speculative agents in the country in addition to the financial modes adopted towards the different farmers in the traditional sectors of the economy. It is clear that agriculture faces several constraints one of which is the lack of infrastructure particularly in the rural areas where the absence of normal trade routes preclude easy movement of food commodities from surplus to deficit areas. Hence, there is need for reform in such a sector to encourage strong and sustained agricultural growth to generate incomes and employment opportunities – and help reduce poverty. The share of crops and livestock in GDP has remained fairly constant, mainly due to low productivity in both sectors (Table 3).

Table 3 – National proxy indicators for poverty, northern Sudan

| <i>Proxy national indicators<br/>(ASAP, 2004)</i>                                                          | <i>Base<br/>year<br/>1990</i> | <i>1998</i> | <i>1999</i> | <i>2000</i> | <i>2001</i> | <i>2002</i> | <i>2003</i> |
|------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Sudan food aid requirements<br>(Nov./Oct.) in '000 tonnes <sup>13</sup>                                    | –                             | 119.6       | 144.0       | 138.1       | 101.7       | 111.0       | 143.9       |
| Sorghum                                                                                                    | 100%                          | 263.1       | 83.1        | 321.5       | 58.5        | 45.8        | 51.0        |
| Millet                                                                                                     | 100%                          | 688.3       | 243.7       | 103.4       | 1,180.0     | 884.8       | 977.1       |
| Number of services and<br>production projects<br>established by Zakat Chamber<br>to the poor <sup>14</sup> | –                             | 73          | 1280        | 204         | 190         | 167         | n.a. *      |
| Crops and livestock<br>production at constant prices<br>(Millions SD) GDP <sup>15</sup>                    | 669.1                         | 1,173.0     | 1,243.4     | 1,346.2     | 1,427.9     | 1,502.1     | n.a.        |
| % Share of crops                                                                                           | 15.1                          | 27.3        | 28.2        | 24.6        | 23.7        | 25.2        | n.a.        |
| % Share of livestock                                                                                       | 11.9                          | 21.7        | 21.8        | 21.8        | 21.8        | 21.0        | n.a.        |

\*\* n.a. = data not available

## **Challenges**

Several factors have contributed to the high incidence of poverty in spite of economic growth. Major ones were: internal conflict; ill-conceived development policies that neglected rural development; and natural disasters, mainly drought which led to conflict over resources.

The main constraints to poverty reduction have been the conflicts in the South and, recently, in Darfur. These have affected all aspects of life and caused massive displacement and migration of people from conflict-stricken areas, to major urban centres in the northern and central parts of the country and as well as to neighbouring countries – an exodus that has further eroded the capacities of the already weak and vulnerable host communities and led to increased levels of deprivation.

Poverty has also been exacerbated by environmental factors. Since the mid-1980's, reductions in average mean annual rainfall have resulted in increased occurrence of drought, compounding the suffering of large numbers of farmers and agro-pastoral herders.

Sectoral ministries have provided relief and welfare to some of the poorest segments of society through a number of programmes. The Ministry of Welfare and Social Development, for example, has engaged in anti-poverty interventions through such mechanisms as the Zakat (Islamic tax) and the Savings and Social Development Bank using such programmes as the productive families programme and the national programme for Graduates self-employment. The Savings and Social Development bank is a specialized funding corporation benefiting the poor mainly targets vulnerable groups such as women, students/graduates, retirees, small farmers etc. The Federal Ministry of Finance and the Ministry of Welfare and Social Development provide the capital of a total of SD4.7 million equivalent to US\$1.7 as of 2003 jointly. The Zakat Fund for example benefited an estimated 105,276 poor patients with its health programmes, sponsored 21,000 students and 26,535 orphans. It has also provided 300 low-cost housing in the Khartoum area to poor families as a first phase and will replicate in other states in subsequent phases. In addition, the National Insurance Social Security Fund and the Health Insurance fund offer pensioners and vulnerable groups with complementary social security system to meet basic needs.

Policy makers realize, however, that what is needed is a more holistic and longer-term anti-poverty strategy – hence the launching of the current Interim Poverty Reduction Strategy Paper (IPRSP) process and the landmark conclusion of the comprehensive peace agreement with the south.

## **Priority strategic interventions and recommendations**

A more informed poverty analysis will require much better data. Hence, the importance of a national poverty information system that can revitalize and support national statistics capabilities and research in general – and carry out a nationwide poverty-specific survey.

For Sudan to escape the poverty trap ensure security and stability, it realizes the need to first resolve ongoing conflicts and resolve the root causes of conflict. Priority strategic objectives to pre-empt conflict should then be to increase access to food, credit, jobs, markets and basic services, achieving a more equitable development regionally and allocation of public resources as well as reducing chronic and transitory food insecurity.

Central to all this will be improvements in agriculture – for both crops and animals. Despite the contribution of the emerging oil sector, agriculture must remain the basis for employment, food security and sustained national economic growth – as well as offering a potential major source of foreign currency earnings. However, agriculture by itself is not the answer. Sudan also needs a macro-economic approach to development planning that combines clusters of policies. These should include, for example, investment to raise agriculture productivity and policies that reinforce equity throughout the Sudan, particularly for the benefit of low-income groups. It will also be important to mitigate the negative impacts of

privatization and to re-allocate financial resources towards social services, that are expected to be freed as a result of ending conflict and civil strife.

Key programming priorities in the post-conflict phase could be as follows:

- *Food* – Respond to food emergencies,
- *Agriculture* – Promote rain-fed, small-scale agriculture, animal husbandry and fisheries;
- *Vulnerable communities* – Support highly vulnerable communities especially returning IDPs and female-headed households, to attain minimum levels of nutrition and improve household food security;
- *Poverty and employment* – Promote the informal sector to generate urban renewal; support the preparation of the IPRSP; promote accessibility to micro-finance in the rural areas;
- *Infrastructure* – Rehabilitate essential basic infrastructure, especially roads and rail.

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### **Monitoring and evaluation environment**

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## Goal 2: Achieve universal primary education

**Target 3** – Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of basic schooling<sup>16</sup>.

### Universal basic education – status and trends

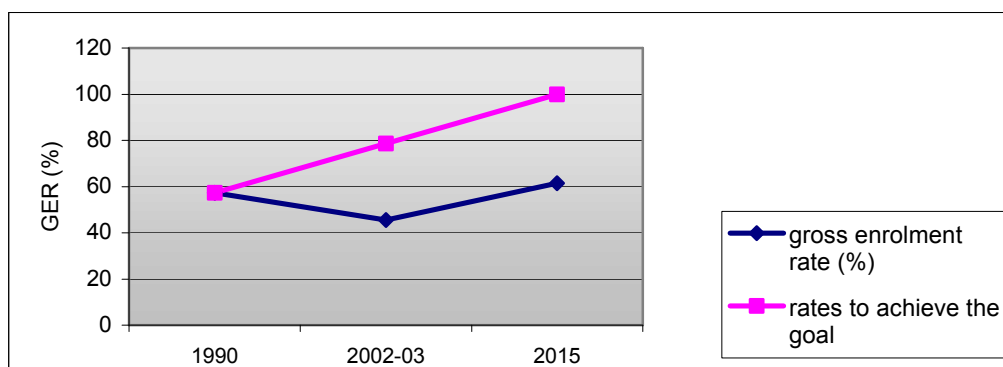
This overview is based on a number of sources including *Education for All: National Sudan Plan 2003*, and *Annual Educational Statistics* from the federal Ministry of Education. It should be noted, however, that the quality and availability of data on rates of drop-out, retention and repetition as well as Net Enrolment (NER) is often low which impacts negatively on the educational planning institutions capacity for effective monitoring of the overall quality of the educational system.<sup>17</sup> For the purposes of this report, the GER is used to assess progress.

Table 4 -- Gross enrolment Rates, 1990-2003

| Year | Gross enrolment ratio (%) |
|------|---------------------------|
| 1990 | 57                        |
| 1998 | 46                        |
| 1999 | 47                        |
| 2000 | 51                        |
| 2001 | 57                        |
| 2004 | 59.6 <sup>18</sup>        |

Figures cover the north and government-controlled areas only

Figure 4 – Progress towards gross enrolment target



Despite changing in 1998 from a 6-year to an 8-year basic education system, gross enrolment has been rising. However, there are concerns about the quality of education. The current educational system consists of three stages: two years of pre-school for children who are 4 years-old; eight years of basic education for those who are six years-old; and finally three years of secondary education. Between the academic years 2000/01 and 2003/04 the GER rose, for both sexes, from 53% to 59.6%<sup>19</sup>.

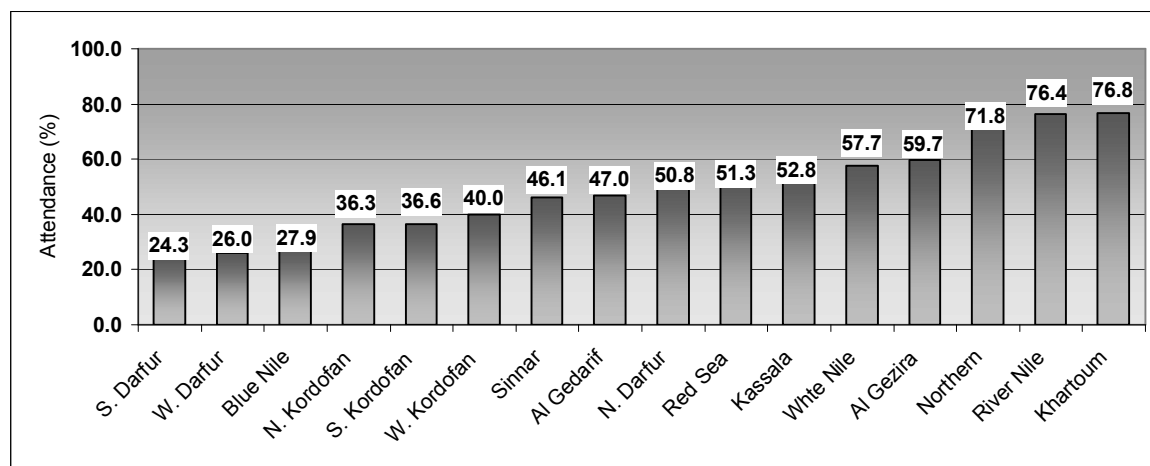
As Sudan prepares for a post-conflict future, it will be vital to invest in education. However, although the Government has committed itself to education it has yet to translate this into concrete financial allocations. In 2000/01 education accounted for only 6.4% of public expenditure (down from 7.7% in 1998/99 and 7.0% in 1999/2000<sup>20</sup>). More than half of total education expenditure is in the form of informal contributions from communities, estimated at 53.4%. One of the main objectives of Education for All



(EFA) is to increase government expenditure on education to 15% of public expenditure and 6% of GDP<sup>21</sup>.

Many regions of Sudan have already seen an enormous expansion in schooling. But FMOE figures show that the overall achievement in basic education is still low and that there are huge regional disparities. The higher levels of enrolment are found in the more prosperous northern regions that are not directly affected by the conflict, whilst the lowest ratios correspond to the conflict affected regions of the South, the West and Eastern Sudan. In northern Sudan, the highest gross enrolment ratio for 2001/02 was in the Northern Region at 92% – compared to 73% in the Central Region, 46% in Kordofan Region, 41% in the Eastern Region. The lowest ratio, only 39%, was in Darfur region, and this was before the Darfur conflict, which has since thrown the educational system into chaos and caused the GER to plummet even further.

Figure 5 – Primary school Enrolment by state, 2000



Source: MICS 2000

Dropout rates are an estimated 5% in the first grade and rise to 12% in the eighth grade. Repetition rates are also alarmingly high – ranging from 5% amongst first grade pupils to 14% amongst eighth grade students. Repetition rates are alarmingly high ranging from 5.2% amongst first graders to 13.5% amongst eighth graders. The critical situation in the conflict-affected South is discussed in section B of this report.

## Supporting environment and policies

In October 2003, the federal Ministry of Education, with support from UNESCO and UNICEF, produced the National Plan for Education for All. As promoted at the Dakar World Educational Forum in 2000, this outlines the national strategy for achieving access to education for all Sudanese by the year 2015. For northern Sudan, the aim is to increase the GER to 72.5% by 2007 and to 87.5% by 2015 – and to raise literacy rates among youth and adolescents to 67% by 2007 and to 95% by 2015. The Government has already taken the necessary steps to formulate and finalize its policy frameworks and planning outlines for EFA and has embarked on the process of state level planning; by 2005 it will have finalized detailed state-level plans and started implementation.

## Challenges

- *Conflict* – Three decades of internal strife, which have created the world’s largest population of IDPs (3 to 4 million), have also had a damaging effect on education. It is much more difficult to ensure that children receive an education in a situation of instability and when populations are constantly on the

move. The eruption of conflict in Darfur recently has exacerbated the problem, adding an estimated 1.2 million IDPs and 200,000 refugees.

- *Resources* – During the 1990s Sudan adopted IMF/WB structural adjustment policies that further reduced the already meagre resources dedicated to basic schooling and other social services. Although the economy has grown fairly rapidly, at an average annual rate of 5%, this has yet to translate into improved social services, as most resources were depleted further by the conflict.
- *Overall poverty* – Many families cannot afford the indirect school fees for more than one of their children. At the same time sending their children to school entails high opportunity costs, since they lose the children's work contribution.
- *Traditional ways of life* – The nomadic way of life in many of Sudan's communities, in the Red Sea and Greater Darfur regions, for example, leads to particularly low enrolment rates. In addition, in some areas girls' education is hampered by traditional gender stereotypes and harmful practices – such as keeping girls at home when they reach puberty, and early marriage.
- *Capacity* – There is a general lack of planning and resource mobilization capacity. In comparison to other sectors, education seems to have a relatively low number of national and international actors engaged in planning and programming, especially at state and local levels. Educational institutions have also been amongst the hardest hit by economic turbulence
- *Quality of education* – In many regions the educational infrastructure is weak; schools are short of basic learning materials, and also lack qualified teachers and educationalists.
- *Children with special needs* – The country does not have adequate mechanisms for identifying or assessing such children – or for providing them with an appropriate education.
- *Data deficiencies* – The lack of data, information and analysis leads to low-quality planning.

As a result of these and other factors, low efficiency, high dropout and repetition rates, and low retention characterize the educational system. Addressing these issues will demand a concerted effort.

### **Priority strategic interventions and recommendations**

The Sudanese Government has signed and ratified the Convention on the Rights of the Child; it has also developed, as mentioned earlier, a national Education For All (EFA) framework and is currently developing state level EFA plans. Following the comprehensive peace agreement it should be able to finance these plans by diverting resources from security into social services, including education. It should also be able to rely on support from the EU and other donors, many of whose pledges identify education as a priority. Recommended strategic interventions should include:

- *Peace negotiations* – Finalize peace negotiations in Darfur and put in place measures to address poverty;
- *Resources* – More government support and finance for education – combined with more efficient financial systems that ensure equitable and fair distribution of education resources to all of Sudan's disadvantaged states;
- *Better access and quality* – This entails supporting national policy on educational planning and coordination to address such problems as dropout and low retention.
- *Expanded educational facilities* – This will involve building more schools and training more teachers so as to be able to provide better access for excluded communities. The Government will also need to sensitize communities to overcome cultural and other practices that hinder school enrolment and retention.
- *Partnerships* – Enhance partnerships with different stakeholders and duty bearers to support EFA
- *Reduce disparities* – Between different educational levels between rural and urban areas, and between girls and boys.
- *Offer relevant skills* – Without jeopardizing cultural and religious values, equip citizens with the skills needed in the modern world. The educational system should be multi-faceted and capable of addressing

the requirements of all, children including ‘children with special needs’ and those who are older and out of school.

- *Reduce costs* – Abolish school fees and subsidize education to ensure that all children can go to school. Put in place community support structures to decrease the opportunity costs of schooling, particularly for girls. Set up more early childhood development educational facilities.
- *Enabling environment* – Create an enabling environment through partnerships among NGOs, community-based organizations and the private sector.

### **Monitoring and evaluation environment**

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|                                                                                                    | <i>Assessment</i> |
|----------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                          | Weak              |
| Statistical tracking capacities                                                                    | Weak              |
| Statistical analytical capacities                                                                  | Fair              |
| Capacity to incorporate statistical analysis into policy planning & resource allocation mechanisms | Fair              |
| Monitoring and evaluation mechanisms                                                               | Weak              |

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## Goal 3: Promote gender equality and empower women

**Target 4:** Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education by no later than 2015.

### Gender equality and empowerment of women – status and trends

Measuring the achievements and gaps with respect to gender equality and women's empowerment is hampered by the absence of a comprehensive gender-disaggregated database. However, the available information suggests that some progress has been made especially in education<sup>22</sup>. It is also evident that while the conflict has resulted in widespread violence against women it has also changed some traditional gender roles and actually led to some autonomy gains for women.

#### *Significant gender-related data:*

- Females constitute half of the population. Among an approximate population for the northern regions of 28.4 million there are 103 males to 100 females<sup>23</sup>.
- Women head about 27% of households. However the proportions vary between urban and rural areas as well as between regions<sup>24</sup>.
- Illiteracy rates in rural areas are 62% for females and 44% males and in urban areas 34% for females and 21% for males<sup>25</sup>.
- The recognized rate of girl's enrolment in basic education for the year 2002/03 is 62.7% compared to a rate of 71.3% for boys with large regional variations for both rates. School dropout rates seem relatively low and similar for both genders, except in rural areas for the 14-16 years age group<sup>26</sup>.
- Both enrolment and intake rates for girls vary considerably between states. This is an important issue that needs further analysis – as well as policies and strategies to bridge the gap.
- Since the beginning of the 1990s women's participation in economic activities has increased from 18% to 30%, but there are still major gender gaps in employment<sup>27</sup>.
- Women comprise 38% of the work force<sup>28</sup>.
- The proportion of working women in the private sector is 10%<sup>29</sup>.
- More women are employed in Khartoum than in other states.
- Maternal Mortality Rate (MMR) is 509 per 100,000.
- HIV/AIDS prevalence among women attending ANC clinics is 1% (SNACP 2002).
- Women's participation in registration and voting in election is higher than men's<sup>30</sup>.
- Since independence in 1956, all the country's constitutions have given women equal rights.

### Indicators

- Ratio of girls to boys in primary, secondary and tertiary education
- Ratio of literate women to men 15–24 years-old
- Share of women in wage employment in the non-agricultural sector
- The proportion of seats held by women in national parliaments

In education, females constitute about 46.9% of the total number of students enrolled at the primary school level and the ratio of girls to boys is 88.3. At the primary school level there are 88 girls for every 100 boys<sup>31</sup>, though primary enrolment for girls tends to be lower among the displaced (53%) and among nomads (37%).

There have been some efforts to improve enrolment ratios for both boys and girls. For the period 1997-2003 primary enrolment grew annually by 4.4% for boys and 3.8% for girls (Table 5).

The disparity between female and male enrolment is also evident at the state level. Northern state has the highest overall enrolment of 97% but still shows a gender discrepancy of six percentage points. At the other end of the scale West Darfur, which has the lowest overall enrolment ratios, has an even wider gender discrepancy – 45% for boys but only 28% for girls. In some states dropout rates for girls may go up to 50%.

Table 5 – Growth in enrolment in basic education, northern Sudan 1997-2003

|                    | Boys      | Girls     | Total     |
|--------------------|-----------|-----------|-----------|
| 1996/1997          | 1,506,014 | 1,321,586 | 2,827,600 |
| 2002/2003          | 2,040,360 | 1,718,334 | 3,758,694 |
| Annual growth rate | 4.4%      | 3.8       | 4.1%      |

Source: FMOE, 2002

Table 6 – Intake and enrolment in basic education, northern Sudan 2002/03

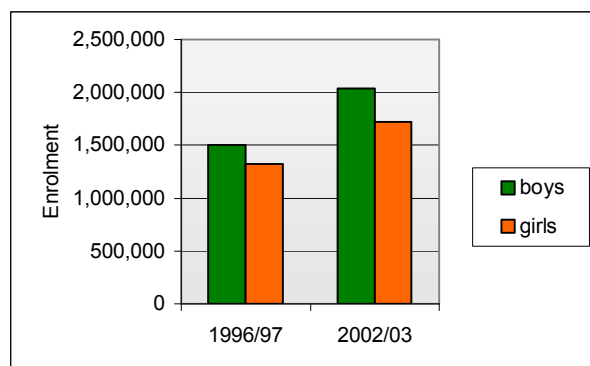
|           | Number of pupils |           |           | Child population of 6-7 years |           |           | % Of enrolment |       |       |
|-----------|------------------|-----------|-----------|-------------------------------|-----------|-----------|----------------|-------|-------|
|           | Boys             | Girls     | Total     | Boys                          | Girls     | Total     | Boys           | Girls | Total |
| Intake    | 331,870          | 280,602   | 604,451   | 465,625                       | 447,796   | 913,421   | 71             | 63    | 67    |
| Enrolment | 2,040,360        | 1,718,334 | 3,758,694 | 3,244,516                     | 3,065,610 | 6,310,126 | 63             | 56    | 59    |

Source: FMOE, 2002

Table 6 shows for 2002/03 the total number of children enrolled at all primary grades as well as those starting primary grade 1 – the original intake. It is clear that there is a gap between the enrolment (the initial number registered) and intake (those who actually attended grade1): 7.7 percentage points for all children; 8.4 percentage points for boys; and 4.6 percentage points for girls.

With over two million girls currently out of school, the majority in the conflict-affected areas, Sudan evidently runs a high risk of not achieving gender equity<sup>32</sup>. Girls as well as boys suffer from meagre budgetary allocations at both the federal and state levels. In addition, much of the existing legislation on education is not enforced.

Figure 6 – Enrolment in basic education, northern Sudan 1997-2004



The situation of girls compared to boys in secondary schools is better than in primary schools. It is clear from the table below that the ratio of girls to boys in secondary education is almost equal for the same years (48%). The rate of growth for both, however, is lower.

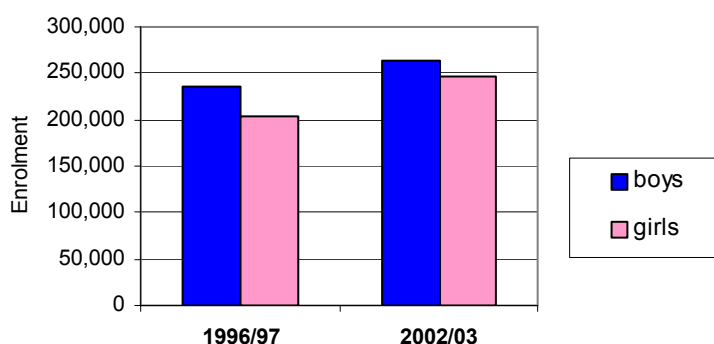
Table 7 – Growth in secondary enrolment, northern Sudan 1997-2003

|                       | Boys    | Girls   | Total   |
|-----------------------|---------|---------|---------|
| 1996/97               | 235,992 | 203,815 | 439,807 |
| 2002/03               | 264,551 | 245,853 | 510,404 |
| Annual rate of growth | 1.6%    | 2.7%    | 2.1%    |

Source: FMOE, 2002

In technical education, females comprise around 46% of enrolment<sup>33</sup>.

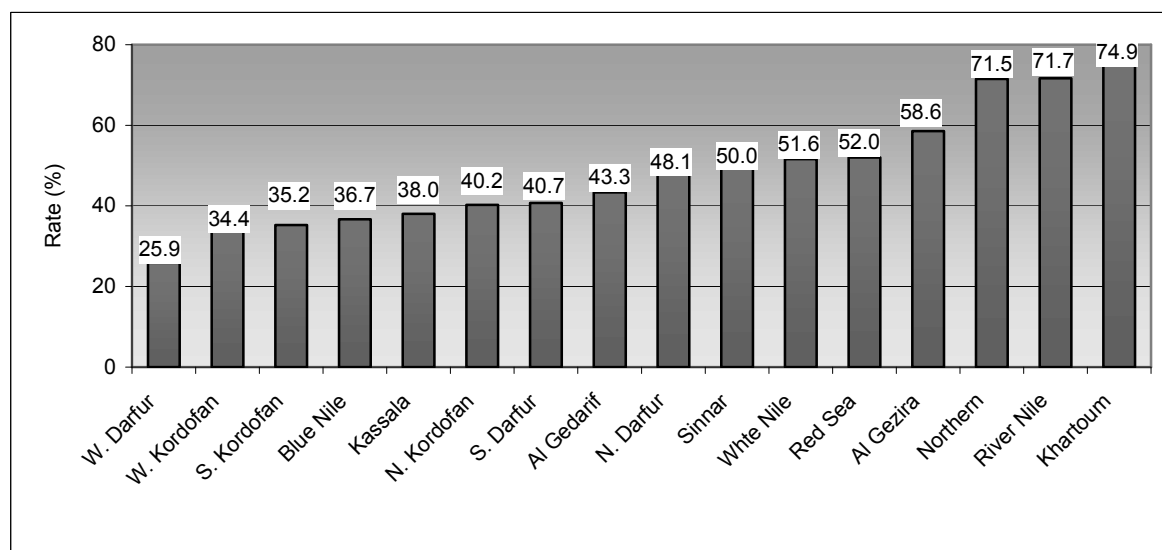
Figure 7 – Secondary enrolment 1997-2003



## Literacy

Women also lag behind men in terms of literacy. In 2003, the literacy rate for females aged 15 and above was 50%<sup>34</sup> with wide regional variations – from 75% in Khartoum to 26% in West Darfur (Figure 8).

Figure 8 – literacy rate, for female population aged 15+



The National Plan of Education aim to raise literacy rates, especially among women, however, it needs to set concrete goals for literacy. It also proposes to incorporate information on income-raising projects, health and agriculture into education syllabi. It also recommends using recruits in the mandatory national service as literacy teachers. However, most adult education is still in the hands of NGOs and the non-formal sector.

## Women in the labour force

Sudanese women contribute significantly to the household income through both paid and unpaid work. Between the early 1990s and the early 2000s, according to the 2001 Sudan Programme of Action for Development, women's economic participation rate rose from 18% to 30%. Even so, women still lag far behind men: the 1993 Census put women's participation at 26% compared with 71% for men. Women are also more likely to be unemployed: in northern Sudan in 1996 the unemployment rate for women was 24%, compared with 13% for men. The gap was evident in both urban and rural areas: in urban areas, the unemployment rate of women was 33% compared with 15% for men; in rural areas the corresponding rates were 21% compared to 12% of male counterparts.<sup>35</sup>

Women are also represented in professional and technical jobs, though not generally in the more senior positions. Thus while women occupy 44% of public-sector jobs they take up only 24% of technical positions, compared with 70% of clerical ones<sup>36</sup>. They also take up only 5% of top management positions.

In urban areas, 77% of women work of, 2.4% works in the public sector and 74.9% in the private and informal sectors. In the rural areas, 78% of women work in the traditional agriculture sector specifically in western and southern Sudan (MOLAR, 1996). Women joining the informal sector in urban centres comprise 85% and are engaged mainly in petty trading, (tea and food). They work under harsh conditions and are often subject to harassment.

Table 8 – Indicators of women's empowerment

|                                                    |     |
|----------------------------------------------------|-----|
| Women's economic participation                     | 30% |
| Female unemployment rate in Northern Sudan         | 24% |
| Female unemployment rates in urban areas           | 33% |
| Female unemployment rates in urban and rural areas | 21% |

Source: Bureau of Personnel Affairs (2004) & MOLAR (1996)

Table 9 – Women's share of different types of employment

|                                    | Women's share<br>of employment |
|------------------------------------|--------------------------------|
| Top management                     | 5%                             |
| Professional jobs                  | 44%                            |
| Technical jobs                     | 24%                            |
| Clerical jobs                      | 70%                            |
| Traditional agricultural<br>sector | 78%                            |
| Informal sector                    | 85%                            |

Source: Bureau of Personnel Affairs (2004) & MOLAR (1996)

Sudanese women representation in the National Parliament has also increased since 1965 (Table 10). Women's representation in Parliament also varies across Sudanese states and regions.

Table 10 – Women's representation in the National Parliament

|      | Total number of seats for men and women | Proportion of seats held by women | Form of allocation     |
|------|-----------------------------------------|-----------------------------------|------------------------|
| 1958 | 95                                      | None                              |                        |
| 1965 | 261                                     | 0.4%                              | Election               |
| 1980 | 368                                     | 4.9%                              | Appointment            |
| 1982 | 153                                     | 9.2%                              | Appointment            |
| 1986 | 261                                     | 0.7%                              | Election               |
| 1996 | 400                                     | 5.9%                              | Appointment            |
| 2004 | .....                                   | 9.7%                              | Appointment/election?? |

Sudanese Women's General Union (SWGU), 2003

Within the federal Government, there are three female ministers at the Ministry of Welfare and Social Development, a state minister at the Ministry of International Cooperation and a state minister at the Ministry of Finance. A fourth executive occupies the position of Legal Presidential Advisor. Women also occupy senior executive posts. There is one-woman state governor (wali), along with two ambassadors, 103 army officers and 729 police officers. In the judiciary women constitute about 6% high court judges and 26% of the general court judges. In the Ministry of Justice there are more women than men working as legal councillors<sup>37</sup>.

## Challenges

There are still many obstacles to gender equality and greater women's empowerment. The most important is conflict, so the main challenge towards achieving Goal 3 must be to ensure peace and security for all Sudanese but especially for women. Even though all constitutions since the independence of Sudan in 1956 have given women equal rights without discrimination in terms of gender, race or religion, gender discrimination however is practised in employment and equal opportunity laws have not always been enforced.

Improving women's lives means addressing many social, cultural and economic issues. These include inequality in access to resources, the cost of schooling, early marriage, and the traditional division of labour and household chores. It also means integrating gender in national development strategies and plans. Moreover, women will not be able to participate fully in the development process until they can achieve their rights to health – particularly safe motherhood.

## Priority strategic interventions and recommendations

The interventions proposed in the National Plan for the Advancement of Women are summarized below:

- *Education* – Enhance educational services for women at all levels.
- *Literacy* – Decrease the illiteracy rate and take measures to integrate functional literacy and innumeracy programmes.
- *Health* – Provide and enhance health services for women.
- *Economic capacity* – Strengthen women's economic capacity and status through training and improved access to resources, production inputs, markets and trade.



- *Environment* – Increase women’s awareness on environmental issues.
- *Conflict resolution* – Empower women to participate in conflict resolution at decision-making levels and in peace- building.
- *Traditions* – Eradicate harmful traditions that deprive women of their rights.
- *Enforcement* – Apply laws that protect women’s rights.
- *Media* – Counter negative stereotypes of women in the media.
- *Human rights* – Integrate human rights with the educational curriculum.
- *Special situations* – Conduct studies on women in special situations, such as those who are displaced, or affected by drought.

The *Quarter Century Development Strategy (2002 – 2027)* outlines its major objectives as: strengthening values and norms that assist and ensure women’s integration in the development process; combating harmful traditions that deprive women of their rights through education and advocacy programmes; strengthening legislation that protects working women and eradicating illiteracy; and ensuring adequate education and training taking into consideration gender disparities at all levels of education as well as regional disparities.

### **Monitoring and evaluation environment**

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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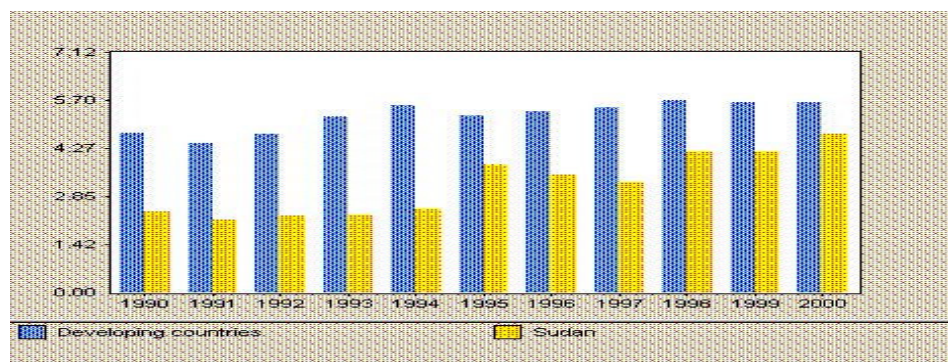
## Health related MDGs:

### Preface

The health care is mainly delivered by Government sector. For profit and non-profit Private sector and NGOs offer health care to some populations including people living in war-affected areas. The federal Ministry of Health (FMOH), 26 state ministries of health, and 134 locality health administrations govern the Government system. The FMOH is responsible for the development of national health policies, strategic planning, and for monitoring and evaluating the performance of the health system, including Management Information Systems. The state ministries of health are responsible mainly for policy implementation, detailed health programming and project formulation. The delivery of health services is undertaken through the local health system that replaced the formerly known as “Health Area System”, and is based on the concept of primary health care.

Government health expenditure is, very low in comparison to the other developing countries. Over the period 1998-2000, the total expenditure on the health and population sector was in the range of 0.7% to 0.9% of GDP – and between 5.4% and 8.5% of total government expenditure. In 2000 this is translated into just \$2.5 per capita. Overall health expenditure in Sudan, both public and private, is indicated in Figure 9. Most of this expenditure is on staff salaries; relatively little is spent on other items, particularly drugs. The funds from international community have been reduced dramatically since 1999. This reduction affected many public health interventions. The flow of external funds to support some health interventions has resumed since 2000 until now. Most of these funds went to communicable diseases eradication/control, primary health care and food/nutrition. These funds are not reflected in figure 9.

Figure 9 – Health expenditure as a proportion of GDP



Government expenditure is supplemented to some extent by international development assistance. In 2002, donors contributed \$20 million to the health and population sector – \$0.6 per person – most of which was for nutrition, primary health care and the control of communicable diseases.

## Goal 4: Reduce child mortality

**Target 5:** Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

Overall there has been little improvement in MDGs related health indicators since 1990. However, some child health and communicable diseases control programmes made significant progress in service coverage with the flow of more international support. Among these programmes are Roll Back Malaria and mass immunization against measles. Micronutrient supplementation, for instance mass distribution of vitamin-A to children less than 5 years of age and promotion of use of iodized salt augmented the efforts exerted on improving child health. Since 2000, around five million children have received vitamin-A

twice a year and in 2004 more than eight million children less than 15 years of age were vaccinated against measles. The impact of these public health interventions on child mortality and morbidity is well known to have positive impact on reducing child morbidity and hence mortality. The last multiple cluster survey was in 2000 has showed very low measles coverage rate experienced in 1999. However since the introduction of the GAVI, the routine immunization programme has witnessed some improvement in coverage and quality of immunization.

### Child mortality – status and trends

Because of paucity of data in general, it is not easy to make an accurate assessment of progress towards the attainment of Goal 4. Nevertheless, since 1990 there seems to have been relatively little improvement. Due to the introduction of major intervention since 2000, childhood mortality is expected to be improved. The analysis below is based on the available survey data done before 2000. Between 1990 and 1990s the infant mortality per 1,000 live births, for example, fell only from 77<sup>38</sup> to 68<sup>39</sup>. Similarly, between 1990 and 1999 the under-5 mortality rate per 1,000 live births declined from 124<sup>40</sup> to 105<sup>41</sup> deaths.

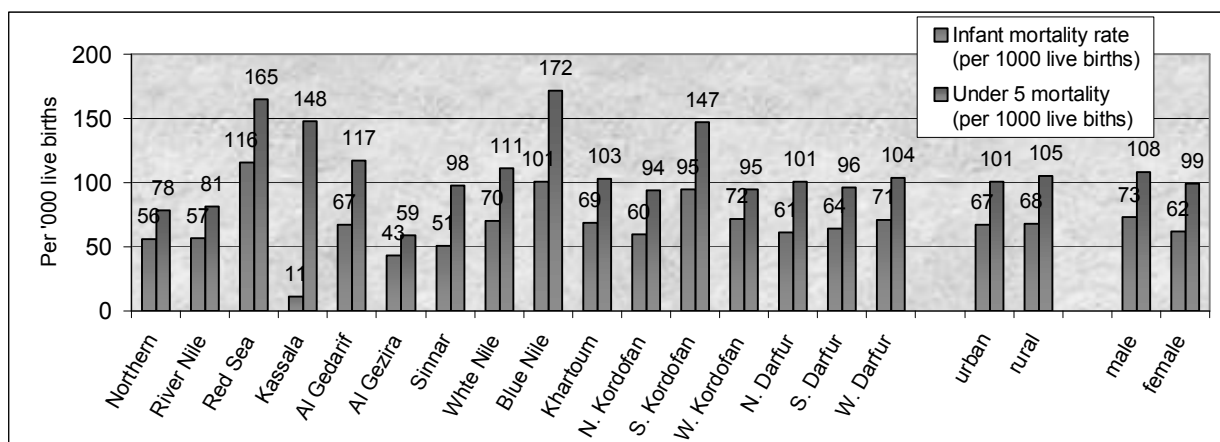
Based on the 1993 census data, and using direct estimation methods, the CBS has projected for northern Sudan an infant mortality rate per 1,000 live births of 116 males and 98 females.

There are also serious problems of malnutrition: an estimated 18% of under-five children are moderately or severely malnourished – a proportion that reaches 27% in drought-affected areas<sup>42</sup>.

There is now no significant difference in under-five mortality levels between urban and rural areas: indeed the rates appear to have converged. Thus in the urban areas between the 1980s and 1990s the rate fell from 117 to 101 while in rural areas it fell from 144 to 105. This apparent convergence may be the result either of under-reporting of children’s deaths in rural areas<sup>43</sup> or of deteriorating conditions in cities as a result of migration from rural areas.

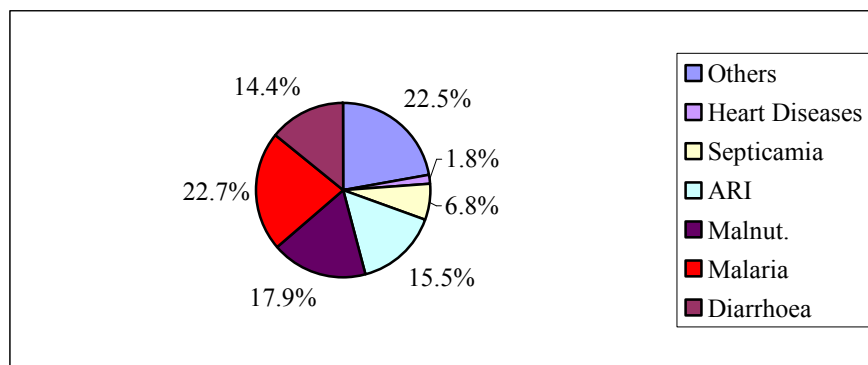
However, greater disparities were evident between states. For instance, four states comprising about 15% of the population of northern Sudan had infant mortality rates higher than 90 and under-5 mortality rates higher than 140 per 1,000 live births: Red Sea, 116 and 165 respectively; Kassala 101 and 148; Blue Nile 101 and 172; and Southern Kordofan, 95 and 147. Neonatal mortality is also highest in these four states – ranging from 38 to 50 deaths per 1,000 live births<sup>44</sup>. Moreover, in most of these states, literacy rates among females aged 15 and above were also lower than the national average of 49%: in Kassala, 38%; in Blue Nile, 35% and in Southern Kordofan, 34%. In Red Sea, however the rate was slightly higher at 51%<sup>45</sup>.

Figure10 – Infant and under-5 mortality rates by state



Analysis of the out patient case load in all health facilities in Sudan in 1998 documented that more than 70% of out patient case load among under five children is due to 5 conditions only: Malaria, Pneumonia with other ARI s, Diarrhoea, Malnutrition and Measles

**Causes of outpatient visits among under five children**



*Source: Annual health statistics report FMOH 1998*

Admissions to inpatient facilities revealed a similar pattern where the same causes accounted for more than 80% of the admitted cases and 75% of under-five hospital deaths.

However, morbidity statistics based on two-week recall history indicated that the main cause, accounting for one-quarter of deaths was diarrhoea. Malaria, which is endemic in Sudan, also takes a heavy toll.

The results of the survey on the quality of outpatient child health services, FMOH, WHO March 2003 for 364 sick children in 66 IMCI implementing facilities, showed that More than half (54%) of sick children presented at health facilities were under two years, 71% of them have had severe classifications, the case that requires acceleration of preventive interventions like breast feeding and complementary feeding, RBM, increase vaccination coverage with focus on measles all are relevant to this age group and are well addressed under IMCI strategy. Among all severely ill children examined under this survey, severe pneumonia contributed to 63% of cases, 57% were febrile for one reason or another, 30% had diarrhea and 17% were having anemia based on palmar pallor. The proportion of children having severe condition or requiring treatment or specific nutrition advice was very high (73%) at dispensary level of health service, the majority of which are in rural areas and are run by medical assistants. This requires more attention to this level of care including improving capabilities of human resources through pre-service and in-service training programmes.

The majority of care takers were mothers (83%), unfortunately 42% of them had no education. The proportion reached 65% at the dispensary level. Multiple strategies like women’s education and empowerment are needed to foster public health interventions required to reduce child mortalities. The same survey has indicated that the workers’ performance is inadequate and that they need major improvement in their skills. The problems were due primarily to inadequate supervision and lack of support from the higher levels of the health system. However, the review also showed that workers who had been trained in the IMCI approach performed better than those who had not. More training on case management supported by supervision is still needed to improve health workers performance.

Case management interventions are not enough to have positive impact on child health without being augmented by improving key family and community practices e.g. breast feeding, complementary feeding, personal hygiene, and using preventive measures for malaria for under 5 children for example Insecticides Treated Nets act. The IMCI Programme exerted many efforts during the last 2 years to make changes

through training of volunteers on communications with families, developed tools to monitor performance of volunteers. Knowledge, attitudes and practices of families are measured before and after interventions; however data available is not enough to generate comprehensive analysis on the outcomes of these interventions.

Looking at the under-5 mortality trend can assess the likelihood of achieving MDG4. On this basis the rate per 1,000 live births in 2015 would be around 80, compared with an MDG target of 40.

## **Challenges**

The immunization programme has been in place for more than 25 years, but it has significant weaknesses. The monitoring process tends to focus on inputs rather than measuring processes and outputs. Nor does it explain why annual targets are being missed, so as to indicate potential corrective measures.

The Integrated Management of Childhood Illnesses (IMCI) programme also needs improvement. A review has indicated that the workers' performance is inadequate and that they need major improvement in their skills. The problems were due primarily to inadequate supervision and lack of support from the health system. However, the review also showed that workers who had been trained in the IMCI approach performed better than those who had not.

Another challenge is the financial sustainability of the program, which depends to a great extent on multilateral donor funding.

## **Priority strategic interventions and recommendations**

The best option is to focus on a primary health care model, combined with incremental inputs on the hospital model. This should be planned over a five-year period for which financial forecasts could be made and investments made available. This would fit with the planning cycles of UNFPA, UNICEF, most of the donors and would also be in line with many of the Government's strategic plans.

In other words, to achieve the MDG 4 target by 2015, the health and population sector has to design strategies at two levels of care:

*Primary health care* – This should encompass country-wide IMCI services: community-based nutrition interventions to combat low birth weight and promote child growth; immunization against the six vaccine-preventable diseases of childhood; outreach and home services; efficient village-based midwifery services to improve the quality and access of antenatal care and ensure that every birth is supervised by a skilled birth attendant; mother and child health services based on primary health care facilities; and protection against malaria through multiple interventions for women and children.

*Hospital care* – This should include hospital-based deliveries, 24-hour emergency obstetric care, and neonatal and paediatric emergency care.

## Monitoring and evaluation environment

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Fair              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Fair              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## Goal 5: Improve maternal health

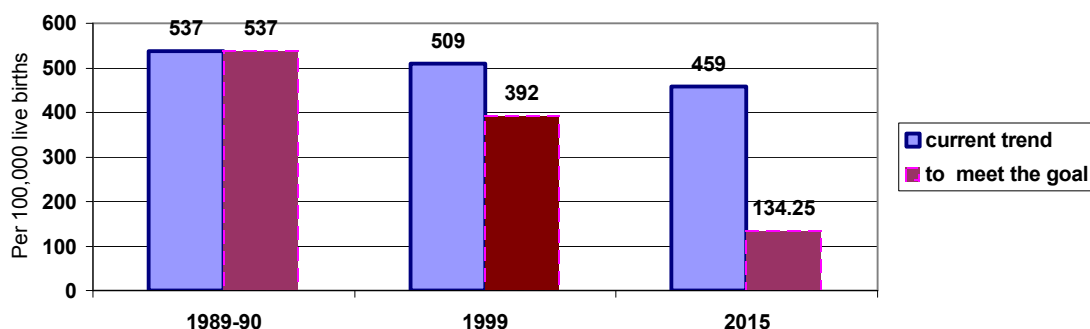
**Target 6:** Reduce by three-quarters the maternal mortality rate

### Maternal health – status and trends

Progress towards MDG5 will be assessed by looking at improvements in the provision of reproductive health care services – access to which is a development objective in its own right and is the central theme of ICPD. This will mean looking at three indicators: the maternal mortality ratio (MMR) the contraceptive prevalence rate and the proportion of births assisted by a skilled birth attendant.

The MMR has improved as evident in the trends between 1990 and 1999. The MMR fell from 537 to 509 maternal deaths per 100,000 live births<sup>46</sup>. However there are wide both between regions and within regions. In the six regions of North Sudan, for example, the ratio per 100,000 live births varied from 582 in Kordofan, to 559 in Khartoum, to 556 in eastern region, to 524 in Darfur, to 452 in central region, and 319 in northern region. These ratios are better than those in many countries in sub-Saharan Africa, but they are the worst in the Eastern Mediterranean region; the ratio in Egypt, for example, is 170 per 100,000 live births<sup>47</sup>

Figure 11 – Maternal mortality trends and goal



Source: CBS, 1990 and CBS/UNFPA, 1999.

For contraceptive prevalence, however, the situation seems to have deteriorated. Only around 7% of currently married women are using any form of family planning – a decline of two percentage points since 1989/90. Even so, there does appear to be an unmet need for contraception. The 1999 Safe Motherhood Survey (SMS) found, for example, that for the five-year period prior to the survey, 11% of women indicated that their births were unplanned and another 4% said they were unwanted. It also found that the proportion of women who had ever used contraception was much higher, 21%, than that the proportion of current users. The SMS survey also asked women if they approved of the dissemination of family planning messages through radio; 58% of women approved and 21% were undecided. Of the 21% who disapproved most were infrequent radio listeners. It seems likely therefore that if there were a more regular supply of contraceptives at public health facilities, more people would use them.

As a result of low contraceptive use the total fertility rate is high – 5.9 births per woman – one of the highest rates in the Eastern Mediterranean region and comparable with that in many countries of Sub-Saharan Africa<sup>48</sup>. There are, however, marked differences between urban and rural areas. In the rural areas, where two-thirds of the population live, the total fertility rate (TFR) has hardly fallen at all and is currently around 6.5. In the urban areas however since 1990 the TFR has fallen by one birth, to 5.1 – a

reduction that correlates strongly with improvements in women's literacy, which encouragingly by 1999 for women aged 15 to 19, had reached 70%. Another positive sign is that over the same period the mean age at marriage increased from 17.5 to 19.9 years – though it varies across the country, from 17 years in Southern Darfur to 21 years in Khartoum.

As a result of the high fertility rate, Sudan's population is relatively young: 43% of the population are below the age of 15 – a proportion that has not changed since 1983.

Another area of concern is antenatal care. Between the late-1980s and the 1990s the proportion of mothers receiving such care fell from 76% to 71%<sup>49</sup>. The coverage also varied considerably across the country – with more women covered in the urban areas (90%) than in the rural areas (62%). There were also wide disparities access and utilization of ANC service between states, ranging from 92% in Khartoum to 33% in Western Darfur. The data available is focussing on horizontal coverage of ANC, care during delivery and postnatal care, over looking the total quality care that will have an impact on the morbidity and mortality of mothers and their young infants. Recognising the lack of progress made and building on the lessons learnt from a decade of experiences of the Safe Motherhood Initiative, WHO has focused its efforts in this area by launching the Making Pregnancy Safer initiative in 2000. Sudan was selected as the spotlight country in EMR to implement this strategy.

The Making Pregnancy Safer Strategy (MPS) contributes to improving maternal and newborn health by reducing morbidity and mortality related to pregnancy and childbirth, through building an effective continuum of care that will increase access to and utilization of skilled care during pregnancy, birth and the postpartum period. This continuum of care should extend from care in the household, to the care provided by a skilled health professional at the first level (primary care level), to that provided at the referral facility for those women and/or newborn with complications. It also includes access to and utilization of services and interventions required to address non-pregnancy conditions that influence a healthy pregnancy outcome, particularly quality family planning services to avoid the many unwanted and mistimed pregnancies and their sequel. The *continuum of care* is not only required to address the immediate need to reduce maternal and newborn deaths, but will lead to a sustainable structure for reductions in morbidity, as well as positive actions to improve maternal and newborn health. Given the immediate need and current disparities special attention will be given to reaching the poorest of the poor and under-served populations, as they are the ones who suffer the greatest burden of ill health and related risks of pregnancy and childbirth.

MPS calls for strong partnership and commitment, under principle WHO and UNFPA together with the FMOH launched a Strategic Partnership Programme .it focuses on concerted actions that will be needed at country level to strengthen all points of the continuum. In particular to:

- Build a skilled workforce for safer pregnancy and birth, especially to increase coverage of skilled care at birth;
- Improving the quality and provision of services at all levels, including refocusing on antenatal care and increasing access to postnatal care and family planning and increasing access to facilities for management of obstetric emergencies;
- Working with individuals, their families and communities to increase access and utilization and increase their capacities to take positive health actions for a safer pregnancy, birth and postnatal period;
- Build collaboration with other key public health programmes to improve national programming and delivery of basic public health care to women and their homes or where they live.(MPS strategy paper by WHO)

Strategic Partnership Programme is at its early phases however if enough efforts by the government and commitment is maintained with external support, positive results will be achieved.

Another way of assessing the state of reproductive health care is through the Reproductive Poverty Index (RPI). This is a composite index based on seven indicators: annual births per 1,000 women aged 15-49



years; the contraceptive prevalence rate; the proportion of women receiving antenatal care; the proportion of births attended by skilled health personnel; the proportion of women with sufficient knowledge of HIV; and the proportion of women undergoing female genital mutilation. A high RPI indicates a high level of reproductive poverty. The states with the worst RPIs are: Southern Darfur (81), Al-Gedarif (75), Blue Nile (74), West Darfur and Northern Kordofan (73), Northern Darfur (64), and Kassala and West Kordofan (63)<sup>50</sup>.

Sudan's MDG target for maternal mortality is to reduce the ratio by three-quarters – from 509 to 140 per 100,000 live births. Probably a more realistic aim, however would be to reduce it by half to 250 per 100,000 live births. This should be helped by improvements in girl's education, reductions in family size, an increased prevalence and utilization of contraception and child spacing.

It will also be important, however, to improve the monitoring and evaluation systems. MMR should be measured not by surveys but by registration of maternal deaths backed by systematic verbal autopsies. The implementation of reproductive and maternal health programmes should also be backed with health system research and the development of standard operating procedures and protocols to improve the quality of care and comparability across areas and over time. Furthermore, the relevant stakeholders need to become familiar with Goal 5 so that future planning, programming, evaluation and monitoring is done in line with this goal and with appropriate indicators such as those produced by the International Conference on Population and Development.

## **Challenges**

At present there is relatively little information either at the village level or the health-facility level on the availability and quality of antenatal care, care during delivery, postnatal care or emergency obstetric services. There are, however, some data on the distribution of certified midwives and these indicate gross inequalities both between and within states. Thus in Northern state and North Kordofan each midwife on average covers a population of less than 2,500 populations, while in Al-Gedarif, South Kordofan, South Darfur and West Darfur each midwife has to cover 5,000 to 6,000. The distribution among villages is not known but it is thought that one resident certified midwife serves 30% to 70% of villages in various states. Another important issue is that if these village midwives could be considered as skilled birth attendant or not since they are not permitted to perform or prescribe life saving procedure and drug like giving oxytocin

In line with ICPD recommendations and experience from other parts of the world, the Government has decided to train more midwives. Nevertheless there should be more investigation to discover why usage of midwives' services is so low and also why only 13% of women receive postnatal care. Experience from other developing countries suggests that around 15% of maternal deaths are related to puerperal sepsis; postnatal care is an effective way to address maternal infection and advise mothers to seek medical intervention.

## **Priority strategic interventions and recommendations**

Some maternal deaths can be related to poverty. But poverty does not explain everything; many women die simply because of a lack of services. There is strong evidence from other low-income countries that supervised high-quality midwifery can reduce maternal mortality, provided the funding is not, as in Sudan, left to states or local government. Thus Sudan needs to back a strategy of professionalism of delivery care with a strong public policy. The long-term aim should be to have all births assisted by certified midwives, who in case of complications can refer women to an appropriately equipped facility for emergency obstetric care.

The first priority is to develop quality ambulatory midwifery care supported with emergency obstetric cares at the referral level and later expand hospital care as resources become available. The long-term

objective should be to provide one local skilled midwife for 2,500 to 3,000 people, or one midwife per village. This target could be achieved in the next six years at the current level of training output of 1,350 midwives per year. The aim of the new intake will be to produce skilled attendants that comply with standards agreed upon. This would need to be based on a mapping exercise to determine which villages are not served and which larger villages need more than one midwife. The mapping should also include an inventory of active midwives along with the challenges they face in providing good quality maternity services – to help identify gaps and guide recruitment and training. On the other hand there needs to be a new and clear roles responsibilities for the midwives in addition to the adaptation of training programmes of midwives taking into account new competencies required and they should go hand in hand. Each state should also undertake annual feedback surveys to assess the quality of services and make the improvements needed to achieve Goal 5. In addition, all PHC outlets should be able to deliver family planning services to which village midwives could refer clients.

All these policies would need to be supported, however, by efforts to promote child spacing – through interpersonal communication as well as through electronic and print media.

### **Monitoring and evaluation environment**

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Fair              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Fair              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## Goal 6: Combat HIV/AIDS, malaria and other diseases

**Target 7:** Have halted by 2015 and begun to reverse the spread of HIV/AIDS

**Target 8:** Have halted by 2015 and begun to reverse the incidence of malaria and tuberculosis

For target 7 the three indicators are:

- HIV prevalence among 15-24-year-old pregnant women
- Condom use rate
- Number of children orphaned by HIV.

Since at this stage the last of these indicators is difficult to measure the focus will be on the first two. Sudan is also a signatory to the Declaration of Commitment made at the United Nations General Assembly Special Session on HIV/AIDS (UNGASS) in June 2001.

### HIV/AIDS control and prevention

Epidemiological studies conducted as part of the national *Situation and Response Analysis*, September 2002, confirmed that the country now faces a countrywide real challenge. There are, however, regional variations: the prevalence of HIV infection is higher in the Southern states, Eastern states, Khartoum and White Nile State. Almost all transmission, 94%, is the result of heterosexual transmission, with vertical transmission from mother to child accounting for 2.4%. Sudan's situation is made even more difficult since the epidemic has taken a grip in neighbouring countries – and there is free movement across the porous borders.

Despite the overall increase in HIV prevalence, the 1999 Safe Motherhood Survey found that in several states only 20% of the population had heard of AIDS; the 2000 Multiple Indicator Cluster Survey similarly found that only 14% of people knew about HIV/AIDS. Even among those who have heard of the disease there are serious misconceptions: behavioural studies conducted in 2002 by the Sudan National AIDS Control Programme (SNACP) found that some 27% of the sample population thought that the disease could be transmitted through mosquito bites and 24% believed it could be transmitted through eating. About 15% believed that there is no harm in re-using syringes and 34% thought that infection couldn't be transmitted through breastfeeding. Nor are many people taking preventive measures.

In the past the main focus of the HIV/AIDS control programme has been on screening blood and blood products through blood banks and also on providing consultation services for sexually transmitted infection (STI) patients at public sector health facilities. Donors have provided some resources for blood screening, advocacy and awareness raising, condoms promotion and for supporting people living with HIV/AIDS (PLWHA), but this too falls far short of what is needed. A number of NGOs are also helping, including Care International, the Sudanese Red Crescent, and the Sudanese Council of Churches, Plan Sudan, ACCORD, the Sudan AIDS Network and Médecins Sans Frontières. In some of the most seriously affected states PLWHA associations have emerged, with assistance from UNAIDS and the theme group on HIV/AIDS;

Although voluntary counselling and testing services are still inadequate and inaccessible to most of the population some steps have been taken to expand them, and the government is currently planning to target high-risk groups.

Over the past two years the Government has been focussing more on HIV/AIDS. The UN Theme Group on HIV/AIDS and UNAIDS in Sudan have also embarked on advocacy and sensitization campaigns. In addition FMOH has held an inter-country meeting for the Ministers of Health of nine neighbouring countries to discuss cross-border issues, including HIV/AIDS.

### **Supporting environment and policies**

The FMOH has developed a number of short- and long-term HIV/AIDS strategic plans. The first major effort to develop a strategic plan based on epidemiological and behavioural grounds was in late 2002 when the Government undertook a comprehensive situation and response analysis. This formed the basis for an evidenced-based national strategic plan for 2003-07 which for the period June 2003 to August 2004 had an operational plan developed with assistance from the UN Theme Group on HIV/AIDS. The plan of action, for which funding is coming from UN agencies and Care International, covers a number of important areas: behaviour change communication with a focus on youth; service packages for high-risk groups, covering refugees, uniformed personnel, and other risk groups; VCT services; blood transfusion services; services for PLWHA; surveillance; and capacity building for staff working on HIV/AIDS. The UN agencies have also provided technical and financial assistance and adjusted their work plans to fit in with the first-year operational plan. The overall goal for the period 2003-2008 is to confine the prevalence to less than 2% of the general adult population, while avoiding the stigmatization of vulnerable populations.

Within this context, the government submitted an application to the Global Fund to Fight TB, AIDS and Malaria (GFATM) which was accepted and signed recently and secured grant funds of around \$7.8 million to expand programme interventions. These interventions have been carefully chosen, based on international best practices and are in line with the strategic thinking of the UN Theme Group. They will target populations with higher-risk behaviour in two of the main high-burden states, namely Khartoum and Red Sea. The GFATM funding will last two years, but the SNACP has also developed cost estimates for a three-year period, anticipating inputs from UN agencies and NGOs.

### **HIV/AIDS interventions**

- *VCT services* – Voluntary counselling and confidential testing services in 12 cities; and four anti-retroviral and opportunistic treatment and support centres for 3,500 people living with HIV/AIDS
- *Education* – Behaviour change communication.
- *Sexually transmitted infections* – STI services for the general adult population through 47 teaching hospitals for treatment of about 36,000 patients per year.
- *Blood screening* – Screening of 135,000 blood bags for HIV/Hepatitis B virus/Hepatitis C virus through 100 blood banks.
- *Life skills* – Imparting life-skills curriculum to 38,000 youth and 8,000 street children in two states.
- *Surveillance* – Introduce annual behavioural and biological surveillance among high-risk groups using a sample of 3,000 to 4,000 and biological surveillance of antenatal care attendees twice in five years.

### **Challenges**

- *Non-health sectors* – There is still little active involvement from non-health sectors. The UN Theme Group on HIV/AIDS has provided technical assistance to serve key sectors to elaborate their strategic framework for the next five years, but this has yet to be operationalized.
- *Diversity* – Sudan is a very diverse country, both regionally and in terms of socio-economic needs, so interventions have to be tailored to local customs and traditions.
- *Discrimination* – Stigma and discrimination remain major problems.

- *Vulnerability of women* – Gender issues and power relations make women the most vulnerable group.
- *Civil society* – Finding ways to involve civil society in a more coherent and coordinated manner within the national strategic framework.
- *Taboos* – Addressing sensitive issues and taboos through more active community involvement.
- *Decentralization* – The Government intends to decentralize the national response to HIV/AIDS. This will require enhancing human resource capacity, especially at the periphery.
- *Population movements* – Major population movements expected after the peace process. These will pose a significant threat and contribute to an escalation of infection. HIV/AIDS must and have been integrated into post-conflict planning.
- *Dependency* – Sudan remains highly dependent on external funding; budgets have few local components.
- *Partnerships* – The national response needs to engage all potential partners, especially the private sector.

### **Priority strategic interventions and recommendations**

All related sectors and line ministries of Sudan should immediately implement a comprehensive HIV/AIDS control programme. A planning exercise has already been completed, indicating the need for \$5.0 million annually; UN agencies and international NGOs have pledged \$0.7 million over one year with around \$0.3 from the Government, leaving a shortfall of \$4.0 million.

The highest priorities should be to raise the awareness of the entire Sudanese population, with particular attention to high risk and vulnerable groups. Such efforts should specifically counter stigma and discrimination, while promoting preventive measures in an effective but culturally sensitive manner.

Without these and other interventions the number of HIV/AIDS cases is likely to increase much more rapidly. A comprehensive programme could slow the spread of the HIV prevalence and reverse the trend after a few years. Neighbouring Uganda, for example, took nearly 10 years to reverse the epidemic's trend. It should therefore be possible to meet MDG 6, even if at a higher level of infection, providing the Government makes a full political and financial commitment at both central and state levels.

### **Malaria control – status and trends**

Malaria, which to varying degrees is endemic in Sudan, is a major public health problem. Annually, is estimated to produce around 7.5 million attacks of sickness and to kill around 35,000 people – 11 out of 10,000. At public-sector health facilities, malaria accounts for about one-fifth of outpatient attendances and in public-sector paediatric hospitals the case fatality rate ranges between 5% and 15%.

The rate was highest in Darfur region followed by Kordofan. In central and eastern regions the fatality levels remained stable over this period. Around 7% of deaths from malaria take place in hospital.

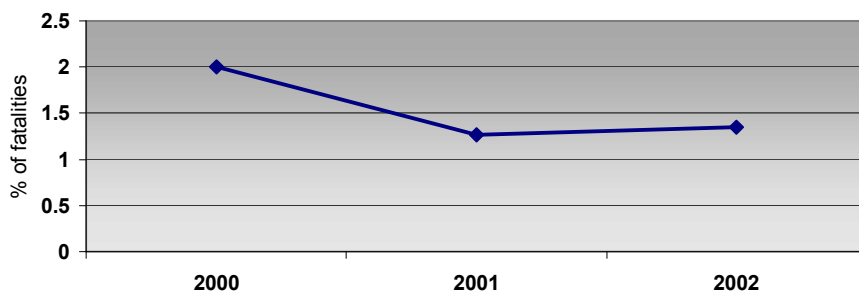
On the other hand the government political and financial commitment and support both at the Federal and state levels have increased

The caseload has been reduced somewhat in recent years. Between 1993 and 2001 the annual parasite incidence per 1,000 people fell from around 400 to 125 per but since then appears to have remained stable.

The total number of malaria cases admitted in 2000, 2001 and 2002 were 119,256, 196,575 and 204,249 respectively; and recorded deaths were 2,379, 2,502 and 2,757 respectively, giving case fatality rates for these years of 1.99%, 1.27% and 1.35% (Figure 9). The rate was highest in Darfur region followed by

Kordofan. In central and eastern regions the fatality levels remained stable over this period. Around 7% of deaths from malaria take place in hospital.

Figure 92 – Malaria case fatality rate among hospitalized patients



## Supporting environment and policies

By 2007 the FMOH aims to reduce malaria morbidity and mortality by 40% through four means:

- Improved disease management.
- Improved disease surveillance and epidemic management.
- Implementing cost effective and evidence-based multiple prevention interventions.
- Capacity building.

In 2003, the Government provided \$1.4 million for the malaria control programme and will probably provide a similar amount for the next few years. Donors, including UN agencies, will provide an estimated \$0.5 million annually for the next three years. In addition, the Global Fund for AIDS, TB and malaria (GFATM) through its second round applications has allocated \$14 million for two years, starting from mid-2003.

## Challenges

Programme implementation has a number of shortcomings that could be addressed using GFATM funds.

- *Treatment and autopsy* – There are no standardized treatment protocols for inpatient care of complicated malaria cases. However, there is need to develop and improve a system a general system of verbal autopsy.
- *Training for doctors* – There is no institutionalized system for training general practitioners, either in the public or private sectors, in the use of standard outpatient treatment protocol nor is there a system for supportive supervision and annual assessment for measuring progress in implementing the protocols.
- *Behaviour change* – The present behaviour change communication campaign needs to be well focused to encourage people to seek early treatment.
- *Data analysis* – Routinely collected epidemiological data are not being adequately analyzed for purposes of planning, programming or monitoring. There is, for example, no system to monitor states where laboratory confirmation of clinical malaria cases is very low. Darfur and Kordofan have persistently high case fatalities that could indicate poor quality of care; these need reviewing...
- *Blood-smear microscopy* – Over the past two years, a system of quality control of blood-smear microscopy has been established in 13 states and the remaining states will follow soon.

- *Monitoring* – Programme monitoring is input oriented with some focus on impact recently, yet needs to be strengthened
- *Training* – Staff need training to orient them with the newly designed results-based management plan for 2003-07, but so far arrangements are inadequate for developing programme ownership.
- *Drugs* – As yet there is no policy on the use of anti-malarial drugs bought using the GFATM grant. It is unclear, for example, whether the use of anti-malarial drugs for intermittent preventive treatment by pregnant mothers comes under the category of public goods and whether these drugs should be free or sold.

### **Priority strategic interventions and recommendations**

The programme is fully funded for the next two years and could meet its planned objectives, and remain on track for meeting MDG 6, provided due consideration is given to the following areas:

- *Monitoring the quality of inpatient care* – This will also require strengthening as a result of the drug policy change, and revised new protocol has been developed
- *Verbal autopsy* – This should be carried out for each hospital death from malaria to assess lapses in the quality of care and enable ongoing improvements. The malaria case fatality rate of each hospital should also be monitored annually, aiming to bring it down to less than 1%.
- *Standardized outpatient treatment protocols* are developed and are in current use after a thorough systematic and comprehensive training
- *Revision of the behaviour change communication (BCC) campaign.* Communication for Behavioural Impact is developed and is very conducive and designed to encourage patients to seek treatment early on
- *Evidence-based annual plans* – Every year a workshop is conducted for state malaria-control programme managers and partner NGOs to analyze epidemiological data and design appropriate annual operational plans.
- *Quality assurance standards for improving diagnostic services.* Low-performing states need to improve their quality for blood-smear microscopy through developing staff skills, ensuring supplies of consumables and using GFATM funds to establish laboratory facilities.
- *Linkages with other health programmes* – The programme has already established linkages with the Integrated Management of Childhood Illnesses programme and it is hoped that these linkages will be further strengthened.
- *Exemptions on charging for anti-malarial drugs* – The federal Ministry of Health should assess the possibility of provision of free anti-malarial drugs to children under five years old. An exemption for these children under 5-years will enable more poor children to benefit from these drugs and constitute an important pro-poor policy.
- *Community-level treatment of malaria* – The programme intends to introduce home-level malaria management. This is a step in the right direction but as yet there is no indication as to how it might be implemented. One option would be to train village midwives to provide intermittent preventive treatment to pregnant women and also to treat adult patients, while referring children to the nearest health facility. Other options could be explored when the community component of IMCI becomes institutionalized.

If the programme is fine tuned in the light of lessons learned, there is every likelihood that it will remain on track to meet Millennium Development Goal 6. However this presumes that funding does not dry up if there is no future financing available from GFATM.

## TB control – status and trends

- **Target 8:** To halt by 2015 and begin to reverse the incidence of tuberculosis.

Sudan occupies third place in the region in relation to the incidence of TB, exceeded only by Pakistan and Afghanistan, and accounts for 8% of the region's total TB<sup>51</sup>. The estimated incidence is about 180 cases per 100,000 persons of which 50% or 90 patients are estimated as smear positive. TB accounts for 12% of hospital admissions and is the most common cause of hospital death. After malaria, ARI and diarrhoea, TB is also the third most common cause of outpatient visits.

Based on an annual rate of infection of 1.8% for population of about 28.1 million for northern Sudan the annual new caseload is around 50,600 cases, of which some 27,000 are notified. In 2002, for example, the case detection rate was 53% increased to 67% in 2003 and 70% in 2004. The majority of TB patients are of reproductive age (15-45 years). There is also a strong link with HIV/AIDS: over the period 1988-96, 6% of TB patients were found to be HIV-positive.

## Supporting environment and policies

The Government however, better funds the TB Control Programme than those for HIV/AIDS or malaria; more than 80% of resources come from the Government budget and less than 20% from other sources.

The FMOH aims to reduce the prevalence of smear-positive TB by half by 2010 – from 90 to 45 per 100,000 populations, or over the same period to reduce acute respiratory infections by half.

## Challenges

Programme implementation has a number of shortcomings:

- *Resources for states* – States are now supervising the DOTS programme reasonably well. Nevertheless, five states – Northern, North Darfur, River Nile, West Kordofan and Unity – need more resources for supervision and for their non-salary budgets to improve the quality of DOTS. Six other states – West Darfur, South Darfur, South Kordofan, Upper Nile, Northern Bahr El Ghazal and Gongoli – need improvements in security and infrastructure if they are to reach 100% DOTS coverage.
- *Children* – Tuberculosis in childhood has not been fully explored.
- *Referral system* – The referral system for complicated adult cases is still evolving and needs to be developed and tested before being expanded.
- *Other ministries* – *Other ministries* – Over four million people are served by health facilities managed by the Ministries of Defence and Interior. To ensure full coverage with DOTS it needs to be expanded through the health facilities of these two ministries.
- Over four million people are served by health facilities managed by the Ministries of Defence and Interior, either because they are staff members with their families or they are in jail. To ensure full coverage DOTS needs to be expanded through the health facilities of these two ministries.
- *Communications* – Ensuring early treatment of TB cases and minimizing the spread of disease will require an expansion of behaviour change communication programmes.
- *Laboratories* – To improve the quality of DOTS the programme has started to establish state-level referral laboratories. These will need substantial inputs in the next two years to enable each state perform random checks of both sputum-negative and sputum-positive slides at peripheral laboratories – to reduce false-negative and false-positive results and improve the quality of diagnosis.



## Priority strategic interventions and recommendations

The DOTS programme has the potential to meet the Goal 6 targets. However, for low-performing states this will require detailed planning in consultation with state-level stakeholders. Funding arrangements will also need to be made and financial allocation should be secured if further GFATM funding does not materialize. This will be needed to cover additional populations through the health facilities of the Ministries of Defence and Interior, to enhance the quality of state-level supervision, to provide states with regular supplies of monitoring instruments, and to establishing a two-way referral system to treat complicated adult cases as well as childhood cases. Another challenge is the institutional and human resource capacities in all aspects of policy design, planning monitoring and evaluation, which need to be addressed and strengthened at all levels

## Monitoring and evaluation environment

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Fair              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Fair              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## Goal 7: Ensure environmental sustainability

**Target 9:** Integrate the principle of sustainable development into policies and programmes and reverse the loss of environmental resources.

**Target 10:** Halve by 2015 the proportion of people without sustainable access to safe drinking water.

**Target 11:** Achieve by 2020 a significant improvement in the lives of 50% of poor and slum dwellers.

### Environmental sustainability – status and trends

Sudan has many important natural resources – land, natural forests, landscape, fresh water, biodiversity, marine ecosystems, mineral resources and reserves of fossil fuels that it needs to manage, protect and develop in a sustainable manner. Recent experience has been discouraging. Civil war and conflict, combined with irrational utilization of natural resources have created a range of environmental problems including land degradation and desertification, deforestation, soil erosion, water pollution, energy scarcity, human health hazards, biological species extinction, decline in soil productivity and loss in sustainability. Most importantly they have added to poverty, which in turn has caused more environmental and health problems. In acknowledgement of the increasing importance of the environmental factor for sustainable development planning, the GOS established a full-fledged Ministry for the Environment, endorsed all international conventions on the environment and is in the process of rectifying an Environment Protection Act.

Forests used to constitute about 36% of total area of the country in 1950. A large part of these forests has been depleted to meet the growing demands for fuel wood, and timber. In 1995 forests constituted only 20% of the area of the country. The rate of deforestation and desertification is estimated to be almost 29 times the rate of forestation. With the Presidential Decree on forest conservation in 1992, around 3.5% of the total area is now protected as natural reserves.

Rainfall varies from near zero in the northern desert to about 1,500 mm in the south. The country is very diverse in terms of rainfall, soil types, land areas and water sources, with four main ecological zones:

- Desert – 35%
- Semi-desert – 20%
- Low rainfall savannah – 25%
- High rainfall savannah – 12%
- Fuel wood plains and mountain vegetation – 8%

According to the National Drought and Desertification Control Programme's Monitoring Unit, more than half the land area is affected by desertification – as a result of inappropriate land use methods, over-cultivation, over-grazing and deforestation. In 1990 deforestation was taking place at 1.06% per annum.

Many parts of the landscape are being affected by erosion. Arid or semi-arid areas in particular are coming under pressure as people look for more land for cultivation or grazing. Erosion then reduces productivity, provoking demand for yet more land – and a vicious circle of degradation. Vulnerability to erosion has also increased following persistent droughts in the 1980s and the felling of trees for different purposes.

In subsistence agriculture productivity has been falling as a result of changes in land use patterns such as abandoning crop rotation and shortening fallow periods combined with the use of manure or fertilizers. But productivity has also fallen in areas of mechanized farming due to inadequate rainfall, harmful management practices, the greater incidence of pests and diseases and a lack of extension services.

There is also great pressure on pastoral systems. The encroachment of cultivation has limited the rangelands, since the first target of mechanized rain-fed agriculture tend to be the best grazing lands – forcing pastoralists into new and more marginal areas or to turn to settled agriculture, resulting in additional pressure on resources. Pastures have also been affected by fires, whether natural or as a result of preparing land for agriculture. All this pressure on the land has resulted in the diminution or disappearance of several kinds of grass and other palatable browsing species.

In the urban areas there are serious problems of industrial pollution, especially in Khartoum, Port Sudan, Wad Madeni and El Obeid where industrial enterprises are discharging raw, untreated effluents and toxic wastes. This takes place in the absence of guidelines, standards and enforceable legislation on industrial pollution or environmental control.

Many towns are also suffering from environmental pollution and health problems as a result of the massive expansion of squatter settlements where poor standards of water and sanitation heighten the risks from endemic and epidemic diseases. Water quality is also affected by the use of insecticides and pesticides by farmers in mechanized irrigation schemes and the discharge of untreated industrial waste.

Further potential sources of environmental pollution have appeared following the discovery of oil and the establishment of pipelines, refineries and export ports, since the country does not have the capacity to control and combat oil pollution. In the Red Sea This poses a particular risk to marine resources; the Sudanese Exclusive Economic Zone is rich in these fragile resources but they have yet to be mapped. The prospect of a mushrooming oil industry has set off alarm bells and, in an encouraging move, the Ministry of Energy recently requested UNIDO to undertake an environmental impact assessment in the sector.

## **Supporting environment and policies**

The *Quarter Century Development Strategy (2002-2027)* linked desertification with poverty, food insecurity and environmental protection and the *National Comprehensive Strategy (NCS 1992-2002)*<sup>52</sup> spelt out the main objectives and priorities for sustainable development. This has served as a key reference document and the basis for sectoral policies and measures – and states clearly that environmental issues must be embodied in all development projects. Among the directives of the NCS is a concern for poverty alleviation, popular participation and a call for the incorporation of community-based organizations and indigenous knowledge into the development process. It also emphasizes the importance of protecting and improving the natural environment so as to achieve balanced development. The NCS further devotes considerable attention to the conservation of biodiversity and encourages the private sector to invest in the conservation of natural resources. In addition, it highlights the importance of establishing additional protected areas, increasing public awareness of environmental issues and involving local communities in conservation matters – while strengthening cooperation with neighbouring countries in wildlife conservation.

In 1990, The Government endorsed the creation of a network of eight national parks and 17 natural reserves and sanctuaries whose designation was declared a priority in the NCS.

Major environmental policies related to MDGs are:

- *Natural resource policy* – in terms of soil protection, plant cover, forestry protection and the protection of wildlife.
- *Environmental policy* – which deals mainly with strategies for protecting the natural environment.

## Challenges

The main weakness of the NCS is that it lacks coherence, being the work of different sectoral teams who made few efforts to establish horizontal or vertical integration. The Government is, however, launching a new 25-year national strategy, which will take account of, among other things, lessons learnt from the NCS. This strategy links desertification with poverty, food insecurity and environmental protection.

The major challenges facing the satisfactory achievement of MDG 7 are:

- *Strategy formulation* – Formulating a national sustainable development strategy, involving the promotion of economic growth, social development and protection of the environment.
- *Enforcement* – The implementation and enforcement of the 2001 Environmental Framework Act.
- *Coordination* – Ensuring policy coordination between different government institutions.
- *Civil society* – Engaging the active participation of civil society in monitoring progress so as to ensure ownership and commitment.
- *Private sector* – Encouraging active participation of the private sector to ensure plausible investment.
- *Data* – Filling in gaps in data and information, especially at the state level, and producing the necessary indicators.
- *Rehabilitation* – Rapid rehabilitation of war-affected zones and resettlement of internally displaced people.

## Priority strategic interventions and recommendations

The major guidelines for economic development should include:

- *Environmental protection* – Protecting the natural environment while developing it and putting it to good use.
- *Intergenerational equity* – Catering for the needs of the present generation without prejudicing those of future generations. This will require rational handling of natural resource while protecting the natural environment.
- *International cooperation* – Ensuring regional and international cooperation in respect of international covenants and agreements, since some environmental problems recognize neither political nor geographical boundaries.

Management of nature resources will mean combining a variety of approaches to improve the management of forests, grasslands, soils and water resources. This will require policy reforms and decentralization, improved regulatory capacity, and strategies to increase community participation and empowerment. Specific policies include:

- Making quantitative and qualitative environmental improvements.
- Rationalizing the exploitation of resources.
- Conserving balanced and stable ecosystems.
- Raising awareness and carrying out environmental education.
- Making proper use of chemicals and developing environmental safety.
- Raising urban environmental standards.
- Safeguarding the environment of the Nile River and its tributaries as well as the Red Sea
- Conducting environmental impact assessments for all developmental projects

These policies have been reflected in the Environmental Protection Act (2001), which is intended to provide a legal framework for policies, legislation and executive action by federal state organs. The Act

should assist the implementation of environmental policy in collaboration with government departments and the private sector. Under the Act, sectoral environmental policies are to be implemented within the framework of the general policy without prejudice to the commitment to international conventions.

This requires an extensive programme. It should include: investing more in the sector; encouraging the participation of local citizens, especially women; preparing an investment map to determine available resources; raising awareness, enacting legislation, mapping areas affected by desertification, controlling the use of chemicals and organic matter in industry and agriculture, improving access to safe drinking water; and surveying environmental systems in the Nile Basin and the Red Sea.

### Sustainable access to safe drinking water

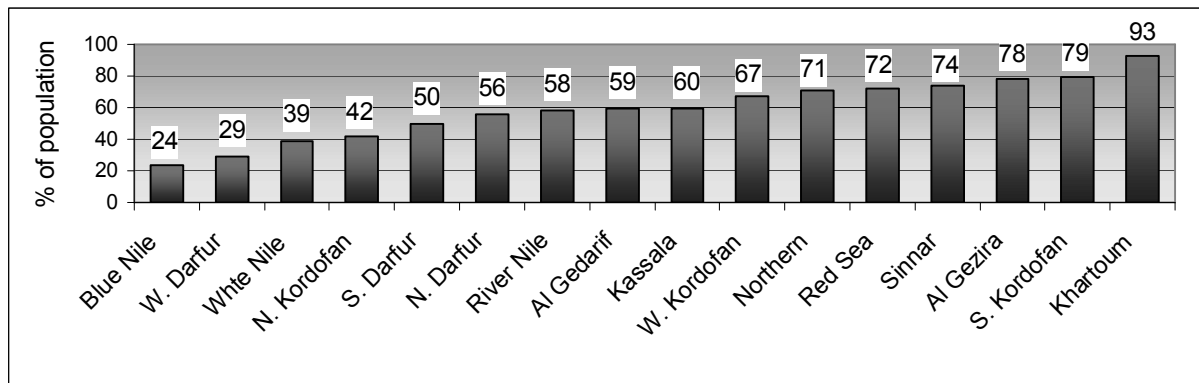
The Sudan is endowed with a variety of water resources – perennial rivers, seasonal water courses, rainfall and underground water. Nevertheless, there are considerable regional variations in access to water. Thus, while numerous rivers and experiences moderate to high annual rainfall, the rest of traverse the southern one-third of Sudan the country is classified as dry and semi-dry. The two Niles only provide water along a north-south central axis, while water is very scarce in the western states.

When it comes to safe drinking water, however, access does not seem to correlate well with the availability of water resources. According to FAO, in rural areas the overall daily per capita amount of drinking water was only 35% to 60% of the minimum required amount and in urban areas 38% to 44%.

The proportion of the population in northern Sudan who have access to an improved water resource is estimated at 70%. However this conceals considerable regional variations – ranging from 24% in Blue Nile state to 93% in Khartoum state. In many parts of the country accessibility hinges not on the physical availability of water but, rather, on how water is managed. Moreover, people in much of the country are so preoccupied with getting any water at all that its quality is a secondary consideration.

Statistical data on water services and sanitation facilities are sketchy. In the northern states this is because of the lack of capacity of the water corporations and in the southern states because of the war. Furthermore, water statistics from different sources are inconsistent, so those presented in this report should be regarded only as approximations.

Figure 13 – Proportion of the population with access to an improved drinking water source



Source: MICS 2000

## Supporting environment/policies

The NCS gives priority to the following strategies:

- *Water resources* – Cost-effective utilization and management of water resources;
- *Technologies* – Introducing low-cost appropriate technologies and encouraging low-cost local production equipment.
- *Rehabilitation* – Rehabilitating deteriorating water resources and systems;
- *Wells* – An expanded programme of well drilling and hand-pump installation, especially in rural areas;
- *Capacity building* – Training, capacity building and increased use of domestic technical resources;
- *Sanitation* – Developing and expanding sanitation services;
- *Community participation* – Promoting community participation and involvement in water supply and sanitation services management and encouraging research in water resource management,
- *Alternative strategies* – Identifying and evaluating cost-effective alternative strategies.

The NCS also gives priority to the rural sector, emphasizing the rehabilitation of existing sources, enhancing low-cost technology options, and improving surface-water resources. *The Quarter Century Development Strategy (2002-2027)* has been developed to provide sustainable safe drinking water resources for pastoralists and their livestock – aiming by the end of 2006 to have raised the daily per capita amount of water to 20 litres for rural areas and 90 litres for urban settlements.

## Challenges

The implementation of the NCS was inhibited, to different extents and for different periods of time, by the re-structuring of the water sector. This involved transferring development budgets from the centre to the states, which generally lack adequate financial resources to cover the costs of water projects.

Many other activities have not been carried out. These include policies related to technological innovation, the use of alternative sources of energy, enhancing research, and providing support for a national water industry and the private sector.

The water situation is distorted by two major factors. First: the fact that, based on current performance, the programme is unlikely to be fully implemented. Second: disparities in access either in terms of regions or social groups.

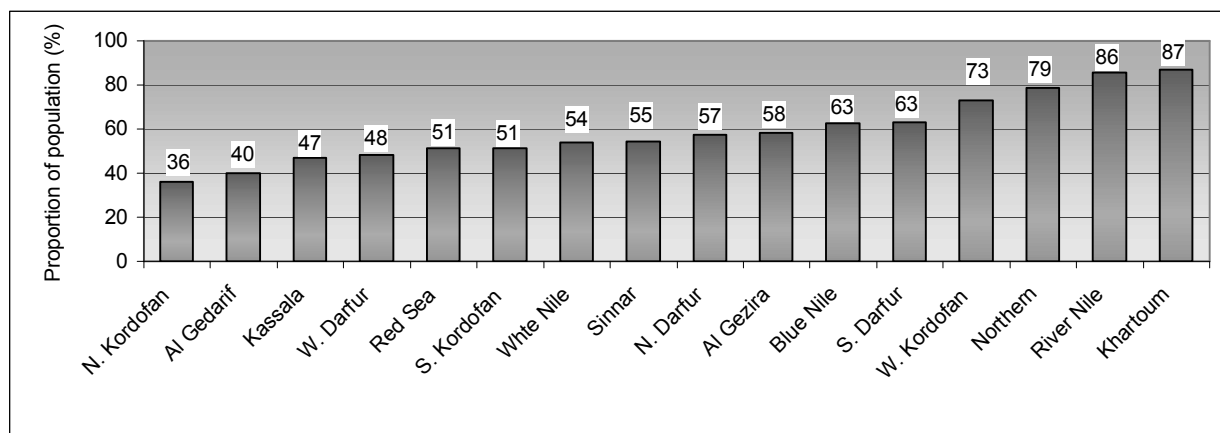
## Improve the lives of slum dwellers – status and trends

Urban settlement planning has to take into account the dynamic nature of populations and settlements and accommodate future changes. In Sudan, planners use a traditional land-zoning system to designate five sub-divisions according to income group. Grades three and four are characterized by traditional building materials and are mostly inhabited by the poor, while grade five consists largely of temporary settlements, usually in the urban fringes.

The arrival of internally displaced people has heightened the demand for shelter in receiving areas that were not even meeting the demands resulting from natural population growth. This has put increasing pressure on infrastructure and social services. Most of the occupants of the squatter settlements tend to dispose of human excreta in open spaces and dispose of solid waste in streets between the houses and in other open spaces – a consequence of the unavailability of proper sanitation and of rural cultures.

On average it is estimated that 64% of the population have access to sanitation, though there are wide regional variations (Figure 14).

Figure 14 – Proportion of population with access to sanitation (%), 2000



Source: MICS 2000

The ratio of populations who have access to sanitation networks are only 6%, while the ratio of urban population who have access to septic tanks is not more than 3.5%. The ratio of population who use traditional pit latrines in urban areas is 26.4%, while in the rural areas is 49.5%, while 41.8% have no access to any kind of sanitation in Khartoum State. For the Northern States, according to the population census: 45% has pit latrines, corresponding figures for Urban and rural are 58% and 38% respectively.

It is estimated that, until this year, the real expenditure in this sector equalled 4.2% of total development expenditure.

### Priority strategic interventions and recommendations for water and sanitation

All Sudanese Governments and local authorities have recognized that squatting is a response to urban-rural disparities and that this will continue as long as there is discrimination in economic and social development, job opportunities and in the availability of infrastructures and social services.

Dealing with these settlements will, however, depend on the nature of the settlement. For sites where the inhabitants have been there for decades and have a strong attachment to the land, and there is acceptable spatial organization, the aim should be to offer improvements that include providing some social services. For recent settlements and new sites, however, the best solution may be relocation though the inhabitants will need considerable support.

Priority interventions in water and sanitation include:

- *Investment map* – Preparing an investment map to determine available resources and support private sector investment in the area of sanitation, water resources development, provision of water services, and the manufacture of water and sanitation equipment.
- *Civil society* – Developing and improving civil society and NGO networks working in the field of environment, water and sanitation and housing.
- *Rehabilitation* – Re-planning and re-location for populations affected by war and natural disaster.
- *Public housing* – Developing a public housing programme for the poor.
- *Multisectoral approach* – Adopting a multi-sectoral approach so that drinking water services, education and environmental sanitation are provided as a package, especially in the rural areas and the urban peripheries.

- *Water corporations* – Clearly specifying the duties and responsibilities of water corporations in the states, and their relations with government units, civil organizations and private companies.
- *Laboratory* – Establishing a central laboratory to improve the monitoring of water quality

### **Monitoring and evaluation environment**

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Fair              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Fair              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## Goal 8: Global partnership for development

**Target 15:** Deal comprehensively with the debt problem

**Target 16:** Develop and implement strategies for productive employment of youth

**Target 17:** Provide access to affordable essential drugs

**Target 18:** Make available the benefits of new technologies, especially for information and communication

### Global partnerships – status and trends

Goal 8 complements the first seven goals by calling for an open, rule-based trading and financial system, more generous aid to countries committed to poverty reduction, and relief for the debt problems of developing countries. It draws attention to the problems of the least developed countries, which have greater difficulty competing in the global economy. It also calls for cooperation with the private sector to address youth unemployment, ensure access to affordable essential drugs, and make available the benefits of new technologies.

Target 15 is concerned with dealing comprehensively with the debt problems of developing countries and the problem of unsustainable levels of external debt, which is the main constraint to achieving the MDGs. Sudan's external debt amounted to US\$ 26.2 billion as at Dec. 31<sup>st</sup> 2004. The threshold of this debt at the end of year 2003 represents 1,244% of the country's total exports and 950% of government revenue whereas the GDP ratio represents 14%. These figures compare negatively with the international standards of 150%, 250% and 15% respectively. This indicates that Sudan external debt is unsustainable as such.

However, there are international moves to cancel the debts of the poorest countries including Sudan (HIPC's Initiative). For Sudan to gain from the HIPC's initiative the following obligations have to be met:

1. Adopting an IMF monitored program and the country must demonstrate a good track record.
2. Adoption of sound administrative reforms and solving the political problems leading to a comprehensive peace in Sudan.
3. Clearing multilateral arrears basically IMF, World Bank, EIB, ADF.
4. Drawing up a Poverty Reduction Strategy Paper (PRSP).

With all these obligations met, Sudan will be offered a write off of 67% of the present value of debt (Naples terms) given that, the counterpart of the debt will be utilized in poverty reduction schemes outlined in the IPRSP. Moreover, an additional write off will be topped up to 90% (Cologne terms) after making the necessary sustainability analysis.

Target 15 also aims at increasing the proportion of the Overseas Development Assistance (ODA) provided to help build national trade capacity. The declining ODA is a major issue, which needs to be underlined strongly as a vital commitment on the part of the industrialized countries towards assisting the Third World if the MDGs are to be achieved at all. . ODA has been shrinking steadily across the board with a few exceptions. Also, a relatively smaller share of Official Development Assistance (ODA) goes to basic social services. In 1997-98 ODA for basic social services provided on a bilateral or multi-lateral basis including the World Bank and the UN averaged US\$3.9 billion or about 11% of all ODA directed to specific sectors. Over the past decade, real value of aid to developing countries decreased by about 8%.

Over the period, 1989-95 ODA to Sudan averaged \$22.2 per capita. However, as a result of a deteriorating relationship with the international community, while humanitarian aid increased, per capita ODA declined

sharply over this period: in 1982 it was \$31; in 1990, \$29; in 1995, \$6<sup>53</sup>; and in 2001, \$5.<sup>54</sup> This decline was against an average population growth rate of 2.6% during the period 1983-93.<sup>55</sup>

The key to unlock a country's potential for achieving MDGs is enhanced micro-economic efficiency through developing a global partnership for development and effective aid, better market access and debt sustainability. It is crucial to relegate a portion of ODA for enhancing microeconomic efficiency through strengthening national institutional capabilities that facilitate productive sectors to overcome technical barriers to trade. Initiatives to enhance economic policy management capabilities will need to constitute part of bilateral and multilateral endeavour to enhance governance, accountability and transparency in policy making. The GOS has recently established a Commission for Accession to the WTO negotiating and facilitating Sudan's accession reporting directly to the Presidency.

In relation to target area 18, GOS acknowledged the importance of bridging the technology gap through the creation in early 2001 of a full-fledged ministry of Science and Technology to accelerate the promotion of technology science in Sudan. Subsequently, a long, medium and short-term national strategy was formulated covering all aspects of capacity building and infrastructure development with programmes under three main categories of Science and Technology, Information Technology and Technology Transfer. More than 70 researchers are currently undergoing training in the different fields of Technology.

Priority programmes on ICT include:

- Sudan electronic city
- Satellite information network
- Computer system (hardware/software) manufacturing

Global partnerships can support countries' efforts to achieve the MDGs by providing effective aid and offering better market access. It will be important therefore to allocate a portion of economic aid for enhancing microeconomic efficiency. This can be used to strengthen the capacity of national institutions to help productive sectors overcome technical barriers to trade. Bilateral and multilateral endeavours to enhance governance, accountability and transparency in policy making should also therefore include initiatives to enhance economic policy management.

The Sudan has the potential to achieve the MDGs if both the debt burden is relieved and ODA is increased. In addition, Sudan realizes that equally important to the achievement of the MDGs is the resolution of issues of peace and security as well as issues of equitable development. The ongoing process of the preparation of the IPRSP should pave the way for alleviating the debt burden and forging meaningful development partnerships.

### **Priority strategic interventions and recommendations**

Achieving this and the other MDGs will depend crucially on ending conflict and achieving peace all over the country. Priority strategic objectives would include:

- *Aid* – Providing effective development assistance
- *Markets* – Enhancing market access, since trade liberalization could reduce poverty substantially
- *Poverty* – Preparing and supporting an interim PRSP and ultimately a full-fledged PRSP as an effective means to service debt on a sustainable basis
- *Production* – Earmarking a portion of ODA for productive sectors
- *Macro-economy* – Developing enabling macro-economic policies
- *Micro-economy* – Enhanced micro-economic efficiency
- *Industrial governance* – Strengthening systems for industrial governance.

## Youth unemployment – status and trends

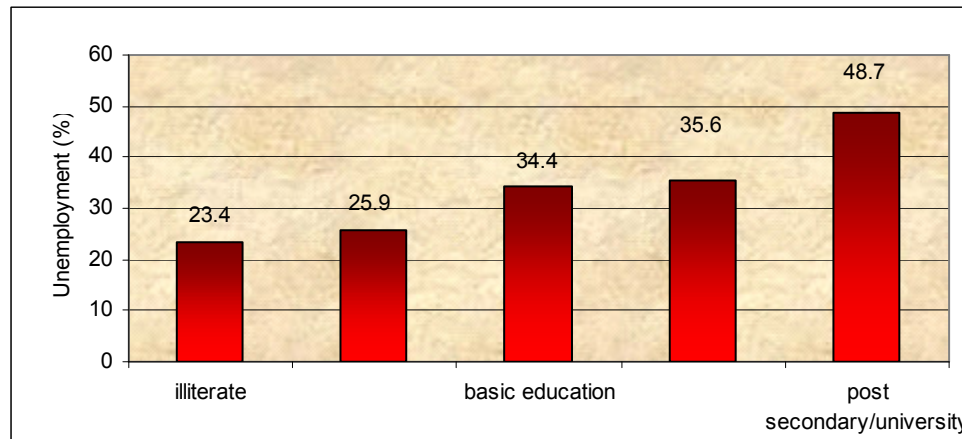
Sudan’s population is around 35 million and growing at around 2.6% per year. The labour force, however, is growing much faster, at around 4% per year. By 2018, the population will have reached an estimated 48 million<sup>56</sup> and assuming the same economic growth rates, over the period 2005-18 Sudan will need to create 6 million more job opportunities – an average of 400,000 per year.

Unemployment is already high, at around 15%, and even greater among young people at around 28%<sup>57</sup>. The situation gets steadily worse with increasing levels of education. Worst off are graduates. Each year over 200,000 students are admitted to universities and around 170,000 emerge with academic degrees – all of them competing for scarce jobs and as a result an estimated 49% are unemployed.

Table 11 – Unemployment for people aged 15–24 years of age, by educational level

| <i>Educational Level</i>  | <i>Unemployment rate %</i> |
|---------------------------|----------------------------|
| Illiterate                | 23                         |
| Less than basic education | 26                         |
| Basic education           | 34                         |
| Secondary                 | 36                         |
| Post-secondary/university | 49                         |

Figure 15 – Unemployment for people aged 15–24 years of age, by educational level



Source: Representative of MOLAR in the Technical Committee

Youth unemployment is a critical issue, with significant social ramifications. It will be vital therefore to empower young people by enabling them to find jobs, particularly in informal manufacturing activities in the peripheries of urban centres, by providing them with the skills and education they need to become part of Sudan’s labour force.

The Government’s objectives include ‘disseminating vocational education and training in all states, starting with deprived groups and those suffering from the consequences of war’. Currently the Government is conducting a number of vocational training programmes, but since these are not linked

closely with market demand, or include entrepreneurship development, many graduates from these programmes do not find work.

### **Strategic interventions and recommendations**

- *Regional disparities* – Redressing imbalances and disadvantages in different regions of Sudan through fair competition for jobs in the national civil service and alleviating discrimination – whether based on religion, ethnicity, gender, or political belief.
- *Training* – To overcome the employment problem, training should target potential young entrepreneurs aiming at business development. Vocational training programmes should therefore aim to meet the labour demands of different types of business, targeting priority sectors and in particular selected agro-based industries.
- *Employment generation* – Technical capacity building of young persons should be combined with employment generation schemes.

Programming priorities should include:

- *Strategies* – Developing and implementing strategies for youth employment.
- *Skills* – Enhancing income-generating skills.
- *Adaptation* – Enhancing adaptive capabilities to commercialize new knowledge.
- *Credit* – Enhancing access to credit
- *Best practice* – Identifying viable avenues for replicating best practice.
- *Self-employment* – Fostering support institutions that can enhance self-employment in the production of resource-based products and in promising product areas.
- *Entrepreneurship* – Creating decent and productive work for youth through entrepreneurship development within the framework of a new regional industrial innovation system for the Common Market for Eastern and Southern Africa (COMESA). This should complement industrial skills, technology, knowledge and institutional capabilities among COMESA member states, with the assistance of other developing countries.

### **Affordable essential drugs**

To attain a degree of self-sufficiency, within the next five years the local pharmaceutical industry will need to produce at least 75% of the country's essential drugs. Sudan is endowed with a huge reservoir of aromatic and medicinal plants that could be used on an industrial scale to alleviate shortages and catalyze the development of a research and development base. Research institutions have already carried out substantive research on the use of such plants but commercialization of research findings is being hampered by the lack of funding or incentives. The local pharmaceutical industry will need to expand vertically and horizontally, and to utilize its full production capacity.

### **Priority strategic interventions and recommendations**

These include exploring the commercial scope for using medicinal and aromatic plants as sources for essential drugs and identifying promising product areas. In particular the Government should encourage and facilitate the establishment of a local industry based on medicinal plants. It should also secure and encourage the local production of strategic items such as intravenous solutions and eye drops as well as disposable syringes and other items in the list of National Essential Drugs. The Central Medical Supplies Public Organization should invite tenders from the local pharmaceutical industry and encourage commercial banks to lend them the necessary capital.

At the same time the Government will also need to update national drugs legislation, basing it on the concept of essential drugs. This will mean enacting laws and regulations that promote local and generic manufacture – including generic labelling, concessionary importation and tax schemes for local manufacture of essential drugs.

Meanwhile the federal Ministry of Health should articulate a national pharmaceutical master plan that encourages the direct participation of civil society in the formulation and implementation of health policies.

### **Information and communications technologies: bridging the digital divide**

In relation to target area 18, GOS acknowledged the importance of bridging the technology gap through the creation in early 2001 of a full-fledged ministry of Science and Technology to accelerate the promotion of technology science in Sudan. Subsequently, a long, medium and short-term national strategy was formulated covering all aspects of capacity building and infrastructure development with programmes under three main categories of Science and Technology, Information Technology and Technology Transfer. More than 70 researchers are currently undergoing training in the different fields of Technology.

Priority programmes on ICT include:

- Sudan electronic city
- Satellite information network
- Computer system (hardware/software) manufacturing

Many manufacturing firms in Sudan are constrained, however, by the lack of local demand for IT goods and services. This is partly because most people live below the poverty line and lack purchasing power, but also because of competition from imports.

### **Priority strategic interventions and recommendations**

Strategic objectives for this target include:

- *Digital divide* – Bridging the digital divide and using ICT to bridge the trade standards divide
- *Awareness* – Spreading ICT literacy, making Sudanese think globally and act locally
- *Leapfrogging* – Using ICT to leapfrog in processing, design and marketing
- *Industry* – Making available the benefits of new technologies to the stakeholders of industrial development
- *Best practice* – Using information and communication technologies to replicate best practice in production and marketing and manufacturing products according to international standards and specifications,

### **Programming priorities include:**

- *Strategy* – Developing a national ICT strategy for bridging the digital divide.
- *Capacity building* – Enhancing national capacities for the effective use of new technologies for analysis and policy formulation, implementation and monitoring.
- *National institutions* – Enhancing the use of ICT by national institutions, especially research and academic institutions.
- *Government institutions* – Building the capacity of governmental institutions to enhance the use of ICT in all ministries.
- *Universities* – Ensuring that university ICT courses include not just theory but also practice, so that students emerge with practical experience.

- *Natural resource database* – Implementing a geographically distributed natural resource database system, with sub-databases at relevant ministries.
- *GIS system* – Implementing the Sudanese geographic information system (GIS) Invest-Map at the Ministry of Investment and connecting it with sub-networks in relevant ministries as well as with the Sudanese UNIDO (SPX) Network.
- *Policy data* – Establishing a policy and decision-making information data bank that can be used at various levels of decision-making – strategic, tactical and executive.
- *E-commerce* – Developing and promoting e-commerce.
- *Sub-databases* – Establishing sub-databases at relevant public and private-sector institutions. These could cover such areas as: production and industry; external and internal trade and statistical research.

The Sudan has the potential to achieve the MDGs if both the debt burden is relieved and ODA is increased. In addition, Sudan realizes that equally important to the achievement of the MDGs is the resolution of issues of peace and security as well as issues of equitable development. The ongoing process of the preparation of the IPRSP should pave the way for alleviating the debt burden and forging meaningful development partnerships.

## Monitoring and evaluation environment

|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Fair              |
| Statistical tracking capacities                                                                      | Fair              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

## **Section B**

### **The Millennium Development Goals in South Sudan (SPLM- controlled Areas)**

## **Message from the Chairman, SPLM Economic Commission**

This interim report on the Millennium Development Goals has been prepared at a most opportune time, as South Sudan enters a new dawn of peace and stability after more than two decades of protracted conflict. The report portrays the current challenges and provides a post-conflict agenda for sustainable peace through the eradication of poverty and an improvement of human development outcomes. The Sudan People's Liberation Movement (SPLM) has adopted the Millennium Declaration as the basis for its agenda during the post-conflict period. The real political test will be how to meet the high expectations of communities deprived of basic rights for years. The SPLM has committed itself to addressing these basic rights and alleviating poverty and deprivation.

Because of the conflict, South Sudan has lost more than half of the period assigned to meet the MDGs (1990-2015). The SPLM and the prospective Government of South Sudan (GOSS) will therefore need to strike a balance between ambitiously attempting to achieve the long-term goals and perhaps setting more realistic medium-term objectives. A key tool in meeting these medium-term objectives is the Poverty Eradication Strategy Paper (PESP) that is expected to accelerate growth and eradicate poverty in the post-conflict period.

This report portrays the woeful status of each of the eight MDGs in South Sudan by identifying challenges, describing the policy and programming environment and making concrete recommendations for accelerated progress towards attainment of the goals. Its in-depth analysis of the level and status of each MDG provides the basis for the development of a coherent 'development road map' for South Sudan.

SPLM and GOS have committed themselves to developing poverty-alleviation policies. The recent joint concept note on 'Poverty Eradication Strategy' reflects the political commitment to a shared overarching national policy and programmes.

The report's analytical focus on inter-linked goals and targets illustrates the need for the use of a multi-disciplinary approach in combating poverty, and makes the case for concomitant capacity building for monitoring progress. By identifying how far South Sudan has come and how far it has to go to meet the MDGs, this report is a useful tool for accountability, awareness raising, advocacy and policy dialogue. As our partners in development, we hope the general public, civil society; the media, political forces and decision-makers in South Sudan will find that this report goes some way toward meeting their needs.

**Cdr Kuol Manyang Juuk**

**SPLM Chairman of Economic Commission**

**Rumbek, South Sudan**



## The South Sudan MDG report

The Sudan People's Liberation Movement (SPLM) has endorsed the Millennium Declaration and adopted the MDGs as an effective way of addressing poverty in post-conflict Sudan. The SPLM has stated that its overall vision for post-war Sudan will be based on the following principles:

- Building a new society and systems of governance.
- Addressing the root causes of recurrent civil wars.
- Creating a strong basis for a permanent and sustainable peace.
- Eradicating the effects of marginalization and exclusion.
- Restoring and achieving the dignity of the people.
- Addressing urban bias and adopting a development paradigm that favours rural and decentralized development.
- Pursuing people-centred development.
- Developing natural resources to meet the basic needs of the people.
- Attaining the Millennium Development Goals.

South Sudan's development strategy is to combat poverty by encouraging sustainable economic growth. This will mean using its own resources, including oil, and developing traditional agriculture by empowering small farmers to enhance their entrepreneurial skills.

As a result of the prolonged conflict in South Sudan local authorities and the humanitarian community have had to focus on saving lives and dealing with emergencies, rather than on development and reconstruction. Not surprisingly therefore, awareness of the MDGs has been extremely limited. With the peace agreement now imminent, however, interest in the MDGs is gradually gaining momentum, particularly at the leadership level. More awareness has also been created by a recent publication by the South Sudan Centre for Statistics and Evaluation (SSCSE) and UNICEF: *Towards a Baseline: Best Estimates of Social Indicators for Southern Sudan* which, for the first time, has presented MDG-related data – and compared these with similar information from the north, from neighbouring countries and from other around the world.

This MDG report on South Sudan is based on consultations between senior SPLM officials in various secretariats, UN agencies, the World Bank and NGOs. All either provided sector-specific documentation or feedback. Subsequently it is envisaged that the SPLM will establish a consultative mechanism on the MDGs – bringing together representatives of the relevant ministries or institutions of GOSS, the UN system, NGOs, civil society and the private sector to foster understanding of the significance of the MDGs and to link them with South Sudan's development strategy.

In analyzing progress towards attaining the MDGs, some of the targets that are policy-driven (for Goals 2, 3, 4 and 7) are assessed in the context of the overall trends. The analysis of targets that are outcomes of policies (Goals 1 and 4) is based on assessing trends and the contributory factors likely to cause such outcomes. The set of targets that can be achieved through changes in attitudes (Goals 3 and 6) are analyzed on the basis of information related to such attitudes. Most of the targets are inter-related and interdependent. The monitoring environment is assessed in terms of capacities for data gathering, statistical tracking, monitoring and evaluation, and the capacity to incorporate this analysis into policy planning and resource allocation.

## Development context and key indicators

In order to achieve sustainable peace and to ‘change the logic of war’<sup>58</sup>, Sudan must invest in its people and their future – making a shared commitment to accelerate economic and social progress through broad-based growth that targets the rural areas and through improved access to social services.

With a signed agreement expected, the political and economic situation looks optimistic. The prospective new Government of National Unity and GOSS will have the responsibility of implementing the peace agreement, and of redressing development deficits by reallocating expenditure from war to pro-poor development.

Of particular importance to South Sudan is the oil sector. Daily oil production is expected to rise from 310,000 barrels to over 375,000 barrels and the industry is expected to grow by 10% in 2004 and by 25% in 2005. Given soaring oil prices, it is estimated that for each dollar increase in the price of a barrel of oil, Sudan’s export value will increase by about \$81 million, or 0.4% of GDP. The overall fiscal deficit, which averaged 7% of GDP during 1990-95, had narrowed significantly by 2000. The share of government revenue in GDP also increased significantly: in 1996-2000 it averaged 8% but by 2003 it had reached 17%.

This conducive macro-economic environment can be complemented with support from international partners. The Joint Assessment Mission will provide the necessary technical and policy analysis so that development partners and donors can contribute to the consolidation of peace, the expansion of access to social services, the growth of income-earning opportunities and improvements in governance, particularly public accountability. The promising macro-economic environment also provides an historic opportunity to consolidate peace and reallocate spending from defence to pro-poor sectors.

### Demography and poverty

The population of South Sudan is currently estimated to be around 7.5 million, of whom around 4.0 million are internally displaced and another 0.5 million are taking refuge in neighbouring countries. Almost the entire population – 98% – live in the rural areas. Population density is approximately 16 persons per square kilometre. Just over half the population are below 15 years of age. With a crude birth rate of 51 per 1,000 and a crude death rate of about 22 per 1,000 children under five, the natural population growth rate is estimated to be around 2.9% per year.<sup>59</sup>

The key social indicators in South Sudan are presented in Table 12. A recent study shows that about 97% of the population became increasingly poor during the civil war and the proportion of the population living below the poverty line is estimated at over 90%.<sup>60</sup> In terms of access to education, South Sudan’s net enrolment ratio (20%)<sup>61</sup> and its ratio of female to male enrolment (35%) are the worst in the world. South Sudan’s adult literacy rate is the second lowest rate in the world, after Niger. The indicators for water, health and nutrition depict a similarly alarming situation. The proportion of children suffering from global acute malnutrition – 22% – is the highest in the world. Although the HIV/AIDS prevalence is lower than in neighbouring countries, the return of refugees and IDPs, and low awareness levels about the pandemic expose the region to a potential disaster.

Table 12 – Key socio-economic indicators for South Sudan

|                                                               | Value | Year |
|---------------------------------------------------------------|-------|------|
| Population size (millions)                                    | 7.514 | 2003 |
| Refugees or internally displaced persons (millions)           | 4.8   | 2002 |
| Population growth rate (%)                                    | 2.9   | 2001 |
| Life expectancy at birth (years)                              | 42    | 2001 |
| GNP per capita (\$)                                           | <90   | 2002 |
| Percentage of the population earning less than \$1 a day (%)  | >90   | 2000 |
| Prevalence of HIV/AIDS in the adult population aged 15-49 (%) | 2.6   | 2001 |
| Population WITHOUT access to drinking water supply (%)        | 73    | 2000 |
| Percentage of children under-five underweight (%)             | 48    | 2001 |
| Adult literacy rate (%)                                       | 24    | 2001 |
| Net enrolment ratio in primary education (%)                  | 20    | 2000 |
| Ratio of girls to boys in primary education (%)               | 36    | 2000 |
| Under- five mortality rate (per 1,000 live births)            | 250   | 2001 |
| Maternal mortality rate (per 100,000 live births)             | 1,700 | 2000 |

Source: SSCSE, 2004a.

# Goal 1: Eradicate extreme poverty and hunger

**Target 1:** Halve between 1990 and 2015, the population whose income is less than one dollar per day.

**Target 2:** Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

## Poverty – status and trends

Poverty is widespread and has been exacerbated by decades of conflict. It is estimated that more than 90%<sup>62</sup> of people live on less than a dollar a day, a significant proportion of them in female-headed households. A study in Western Equatoria in 2000, for example, found that about 93% of the population lived on less than a dollar a day.<sup>63</sup> Another study in the same year conducted in Bahr el Ghazal region found that during the civil war most households became poor with the proportion reaching as high as 100% in some areas, and with the probability of escaping poverty almost zero<sup>64</sup>. In 2003, a study covering the whole of South Sudan found that the proportion of households that became poor during the civil war was as high as 97%, with the highest proportion of poor households being found in Upper Nile, followed by Equatoria and Bahr el Ghazal<sup>65</sup>.

## Population facing a food deficit

Since there are insufficient data to assess the proportion of the population living below the minimum level of dietary consumption this report uses as a proxy the proportion of the population facing a food deficit. The UNICEF Multiple Indicator Cluster Survey (MICS) in 2000 reported that about 22% of households often either ate no food or ate wild foods once a day before the survey period, that 54% still depended on relief or food loans after the last harvest, and that 69% consumed wild or no food during the worst period after the last harvest<sup>66</sup>. These households were mainly in Bahr el Ghazal and Upper Nile regions, which have been hardest hit by insecurity. In 2004 it was estimated that 1.8 million people in South Sudan were in need of food assistance.<sup>67</sup>

Food security in South Sudan is not only an issue of production but also of economic access and opportunities. It is also important to consider gender relations at the household level in so far as they affect access to, and the allocation of, resources.

## Malnutrition levels

Malnutrition in emergency situations is often based on measurements of mid-upper arm circumference (MUAC) of children under five. If the MUAC is below 12.5 cm the child is said to be suffering from global acute malnutrition (GAM); if it is below 11.0 cm, or the child has oedema (swelling due to large amounts of fluid in the body's intercellular spaces), the child is said to be suffering from severe acute malnutrition (SAM). According to the World Health Organization a GAM prevalence of 15% indicates a serious situation.

Malnutrition levels in various parts of South Sudan have been particularly high in recent years, especially in Bahr el Ghazal and Upper Nile regions, and to a lesser extent in Equatoria. The average GAM in Bahr el Ghazal and Upper Nile increased from 20% in 2001 to 25% in 2003. In 2003, South Sudan had a GAM rate of 21.5% and a SAM rate of 4.5%.<sup>68</sup>

Acute malnutrition rates can vary dramatically from year to year, with seasonal fluctuations. In 2003, GAM rates among under fives were as high as 30% in Bahr el Ghazal and Upper Nile (where the highest rate was 39%), and the SAM rates ranged between 6% and 8%.<sup>69</sup>

These levels of malnutrition are largely due to general shortages of food. However, even when food is available this does not necessarily translate into nutritional well-being. In Old Fangak, in Upper Nile, for example, malnutrition actually worsened between March 2002 (GAM 30%) during the hunger gap, and

September (GAM 34%)<sup>70</sup> after the harvest and despite food aid interventions. This high GAM rate, especially for the 6-29 months age group, was linked to poor care and weaning practices. One of the best ways to address such problems is through improving women's education, which globally over the past 25 years is estimated to have accounted for a 40% reduction in malnutrition<sup>71</sup>.

Other indicators of malnutrition are underweight, stunting and wasting. The levels for these indicators, over the period 1995-2001, are shown in Table 13.

Table 13 – Malnutrition levels in South Sudan between 1995 and 2001

|                                                                                                    |     |
|----------------------------------------------------------------------------------------------------|-----|
| Percentage of under-five children underweight (weight-for-age)                                     | 48% |
| Percentage of under-five children severely underweight age (weight-for-age)                        | 21% |
| Prevalence of under-five children stunted (height-for-age)                                         | 45% |
| Percentage of under-five children suffering from wasting – moderate and severe (weight-for-height) | 22% |

Source: SSCSE, 2004a

In the past, conflict eroded many traditional coping mechanisms, leaving many communities dependent on food aid and agricultural input support. This has been the case especially in Bahr el Ghazal and Upper Nile where many households lost farming labour, particularly male labour, to the war. The war also severely restricted movement, closed trade routes and reduced access to markets, thereby disrupting traditional livelihood strategies. In the worst cases, protracted counter-insurgency warfare exposed many communities to recurrent famines. In 1998 alone, in Bahr el Ghazal region, it is estimated that 70,000 persons died as a result of famine<sup>72</sup>. The effects of warfare have been exacerbated by adverse climatic conditions, including floods and drought.

## Challenges

Addressing poverty in South Sudan will mean examining its underlying causes and its influence on production, on the stability of supplies and on access to food. It will also be important to consider critical overarching factors such as low incomes, the lack of opportunities, and factors influencing malnutrition.

- *Conflict* – Years of conflict have resulted in minimal investment in agriculture and poor transport infrastructure.
- *Capital* – Local production systems do not have sufficient capital to create opportunities for improving access to food.
- *Women* – Women cannot contribute effectively to poverty reduction because they are often marginalized in the distribution and management of production resources.
- *Education* – Nutrition is undermined not just by inadequate food security, but also by low standards of health, and hygiene. Better standards of education would also make an important contribution, especially for women. At present, however, girls make up only 27% of primary school pupils. Many drop out as a result of early marriages and the burden of household chores: and only five out of 100 girls complete primary education<sup>73</sup>. As a result, female literacy rates are low.
- *Access* – pockets of insecurity due to ethnic conflict hamper the delivery of humanitarian aid. Another obstacle is the climate: assistance agencies find it difficult to gain access during the wet season when road transport is not feasible and it is impossible to land at some airstrips.
- *Multisectoral strategy* – The gains from food security are often nullified by other factors, especially disease, poor sanitation and limited education. This underlines the need for a multi-sectoral strategy – linking, strategies for food, nutrition, health, hygiene and water.
- *Returnees* – Returnees are particularly exposed. Prohibitive transport costs and taxation along return routes have left many of these people very vulnerable. At present it is still difficult to adequately

identify returnees who are destitute and who could be given support and opportunities that would strengthen local capacity. Other communities will also have their food security situation worsened following the peace agreement if they have to share their meagre supplies with returnees.

Institutional challenges include:

- *Legal framework* – Lack of a legal policy framework that can support the sustainable development of natural resources and the promotion of the private sector.
- *Resource base* – A weak resource base for the effective establishment, functioning and consolidation of the agricultural secretariat.
- *Data* – Lack of an agricultural information management system and inadequate capacity within the Secretariat for Agriculture and Animal Resources (SAAR) to collect, compile, analyse and manage data.
- *Collaboration* – Inadequate collaboration between agencies involved in the planning, implementation, monitoring and evaluation of agricultural programmes.

### **Supporting environment and policies**

With the signing of the merger accord between the Sudan People's Liberation Movement and the Sudan People's Defence Force in 2001, and the anticipated signing of the comprehensive peace agreement, stability is slowly returning to many parts of South Sudan. However, food aid and agricultural input support are still urgently needed.

SAAR, which is responsible for the crops, forestry, livestock and fisheries departments, is aiming for food self-sufficiency and nutritional security. It works closely with UN agencies and international and national NGOs. The draft SAAR Food Security Strategy<sup>74</sup> focuses on production, access and market-based opportunities that would eventually translate into better nutrition. It includes: the removal of structural constraints to availability and access to food; rehabilitation programmes targeting vulnerable communities, returning IDPs and refugees; and the establishment of extension services to support the introduction of appropriate technology, along with capacity building of staff. The policy environment for implementation of the strategy is outlined in the *Interim Policy Guidance and Interventions*.<sup>75</sup> The draft Agricultural (Crop) Policy document is now complete, and policy documents for the other departments are being formulated.

### **Priority strategic interventions and recommendations**

- *Macro economy*– The development of relevant and flexible policies that would ensure a stable macro-economic framework consistent with the challenges of poverty alleviation and reduction.
- *Food* – The development of a food policy for South Sudan that incorporates pro-poor, gender-sensitive strategies focussing on increasing availability and access to food.
- *Credit* – The establishment of credit schemes for farmers and women in order to improve incomes.
- *Agriculture* – Support for a development strategy that focuses on the region's own resources and traditional agriculture – since an estimated 98% of the population is rural and dependent on subsistence agriculture.
- *Infrastructure* – Funding for investment in transportation and marketing infrastructure to facilitate trade and access to markets.
- *Resettlement* – Coordinated development of community-based resettlement and rehabilitation programmes, including planning and pre-positioning of food and agricultural input support, alongside health and water facilities to cater for the expected return of refugees and IDPs.
- *Agricultural framework* – The establishment of an institutional framework to administer and manage the crop, livestock, fisheries and forestry sectors.

- *Secretariat* – Support for capacity building and institutional strengthening of the SAAR to enable it to implement its strategies.
- *Statistics* – Funding to support the development of the New Sudan Centre for Statistics and Evaluation (NSCSE) as the national statistical system, and to build its capacity to monitor progress towards the MDGs. SAAR and NSCSE should work closely together, and with other agencies, to consolidate agricultural data, for early warning and for forward planning

## Monitoring and evaluation environment

The lack of statistical data has made it difficult to establish trends. Proper planning has also been constrained by lack of consistency in reporting and the methods of data collection, which have been agency focussed, sector specific and largely relief driven.

The SAAR lacks a comprehensive database; most sectoral statistics are collected by humanitarian agencies. The SSCSE is the SPLM’s designated authority responsible for the coordination of sectoral information systems and the supply of statistical data and will also monitor and evaluate humanitarian activities. The SSCSE publication *Towards a Baseline: Best Estimates of Social Indicators of Sudan, 2004* presents and evaluates existing information and data on social indicators for various regions of South Sudan. Apart from serving as a baseline for future planning and prioritising, it provides a basis for monitoring and setting realistic targets for achieving the MDGs<sup>76</sup>.

|                                                                                         | <i>Assessment</i> |
|-----------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                               | Weak              |
| Statistical tracking capacities                                                         | Weak              |
| Statistical analytical capacities                                                       | Fair              |
| Capacity to incorporate statistical analysis into policy planning & resource mechanisms | Fair              |
| Monitoring and evaluation mechanisms                                                    | Weak              |

## Goal 2: Achieve universal primary education

**Target 3:** Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

Table 14 – Basic data on education in South Sudan

| <i>Indicator</i>                                        | <i>Year</i> |      |
|---------------------------------------------------------|-------------|------|
|                                                         | 2000        | 2003 |
| Net enrolment ratio in primary education*               | 20%         |      |
| Gross enrolment ratio (GER)                             | 23%         | 25%  |
| Proportion of pupils starting grade 1 who reach grade 5 | 28%         | 2%   |
| Primary completion rate <sup>77</sup>                   |             |      |
| Literacy rate of 15-24 year-olds**                      | 31%         |      |

Source: UNICEF/AET, 2003; SSCSE, 2004a

\*Estimates using adjusted numbers

\*\*Deductive estimates based on Education Statistics

### Primary education – status and trends

Despite efforts to rebuild the education system in South Sudan over the past decade, over 75% of an estimated 1.4 million children of school-going age (7-14 years) do not have access to education.<sup>78</sup>

#### **Net enrolment ratio**

Because of a lack of adequate cohort data it is difficult to estimate the net enrolment ratio (NER). However, it is likely to be significantly lower than the gross enrolment ratio (GER) because of high drop-out rates and the fact that many students are substantially over age.<sup>79</sup> This is possibly due to the limited number of adult education centres, making schools the most accessible type of learning institution available for adults.<sup>80</sup> A survey of 101 schools in Equatoria, for example, indicated that the average age of children in grade one is 12 years, five years older than the official entry age of seven years.<sup>81</sup>

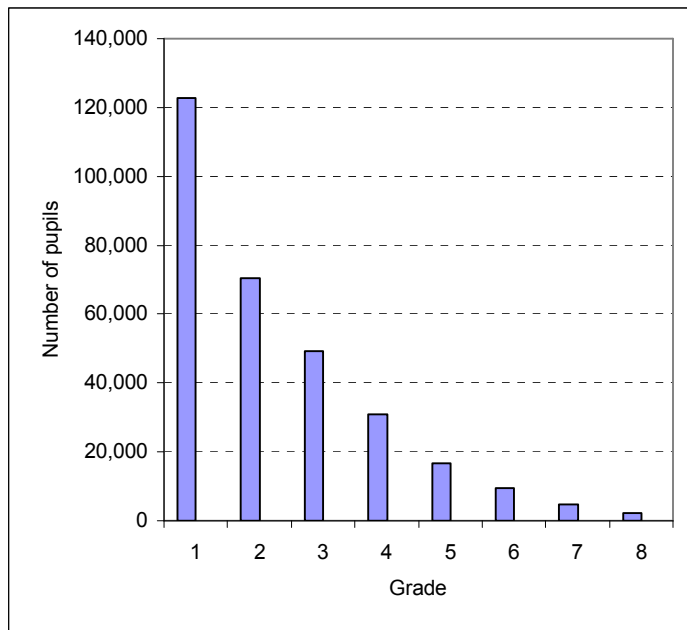
The GER is the total number of children in school (regardless of age) expressed as a proportion of children in the population of the official school age<sup>82</sup> (7-14 years for South Sudan<sup>83</sup>). The GER is used as a proxy indicator for the NER. The GER for South Sudan is estimated at 23%.<sup>84</sup> Paradoxically, this is almost double the ratio (12%)<sup>85</sup> during the inter-war (1972-82) period. This is largely due to community initiatives to rebuild the education system, with the support of local authorities and humanitarian agencies. However, this impressive increase in the level of access masks the challenges faced in the provision of quality primary education. Lack of access to schools is the single most important factor responsible for the low enrolment ratios<sup>86</sup>. Increasing the number of primary schools and positioning them closer to villages will be essential for increasing school enrolment.

#### **Proportion of pupils starting grade 1 who reach grade 5**

There are no cohort data available to measure the proportion of pupils starting grade one who reach grade five. However there are data on enrolment by grade that show how enrolment declines progressively: 89% of pupils are found in the lower grades and only 11% in grades 5 to 8.<sup>87</sup>



Table 15 – Enrolment in primary school by grade in South Sudan, 2003



Source: AET/UNICEF, 2003

Many children drop out as a result of an increased domestic workload, and cultural factors such as early marriages for girls. In addition many schools have been forced to close as a result of famine and insecurity<sup>88</sup>. Because the SPLM-held areas of South Sudan do not have a certification system many pupils have moved to neighbouring countries in search of formal recognition of their learning.<sup>89</sup>

### ***Literacy rate of 15-24 year olds***

Large numbers of youth in South Sudan missed out on education when they joined the army, were displaced or were abducted by militia.<sup>90</sup> Others did not attend school for fear of forceful conscription. Research shows that it takes five to six years of basic schooling to achieve functional literacy and numeracy.<sup>91</sup> With the current high drop-out rates for primary schools, it is estimated that on average children are spending only one or two years in school<sup>92</sup>, so only a small proportion are likely to achieve basic literacy and numeracy<sup>93</sup>. This is compounded by the limited opportunities for those over 15 years in alternative education – whether in technical and vocational training institutions or in accelerated learning programmes.

### **Challenges**

All children in South Sudan will be able to complete a full course of primary schooling. Achieving this by 2015 will involve addressing not only the twin issues of access and availability and improving the quality of education, but also dealing with cultural and social barriers. There are also many data deficiencies.

### ***Increasing availability and access to education***

Schools in South Sudan find it difficult to provide a learning environment conducive to the enrolment and retention of pupils. The majority are ‘bush schools’ offering minimal protection from the elements, held outdoors under trees, or built of local materials without walls. Of the 1,426 schools covered by the School Baseline Assessment, 68% do not have latrines, 52% have no safe drinking water and more than two-thirds have no health facilities nearby.<sup>94</sup>

Only 6% of teachers are formally trained, while 45% have attended only in-service courses of between one and nine months. Teachers serve on a volunteer basis, and their commitment is variable due to unpredictable and inequitable remuneration – \$2-\$90 per annum in 89% of school Parent Teacher Associations (PTAs).<sup>95</sup> This greatly compromises the quality of education. In addition, there is a severe shortage of books. Only 16% of schools have their needs for textbooks met and half of schools have to manage without teachers' guides.<sup>96</sup>

Children also face many other obstacles to attending school. Some live too far away from the nearest school. In addition, many parents are simply unable to afford the fees or have to consider the opportunity cost of sending their children to school, preferring to keep them at home doing household chores or other productive work. They may also be concerned about the security of their daughters if they have to walk long distances to school.<sup>97</sup> Parents of disabled children may also be reluctant to send them to school, especially when there are no specialist materials particularly for the blind and deaf.

Other challenges include:

- *Returnees* – Absorbing students from IDP and returning-refugee populations in large numbers and from different systems. Current plans include orientation courses and integration into existing schools where numbers are small, or construction of schools, and pre-positioning of emergency school and class kits.<sup>98</sup>
- *Children with disabilities* – Improving access to education for children with disabilities.
- *Data* – Lack of cohort data to determine survival rate to grade five. At the beginning of 2003, the Secretariat of Education (SOE), supported by UNICEF/OLS initiated a Rapid Enrolment Assessment that seeks to collect enrolment data biannually.
- *Defining competencies* – Defining a set of basic learning competencies to be mastered by a child after five or six years of schooling.
- *PTAs* – The minimal participation of PTAs in promotion of education at community level.
- *Teacher remuneration*. Because teachers are poorly paid they often leave to do other work. Staffing difficulties are compounded by a lack of trained teachers.
- *Gender* – Overcoming cultural barriers that have led to gender disparities in education.
- *Transition to development* – Managing the transition from relief dependency to development. UN agencies and NGOs can serve as capacity builders, innovators and advocates, but for the next decade there will be a substantial funding gap with current planned support covering only about 50% of needs.<sup>99</sup>
- *Decentralization* – Building capacity for decentralized management – making educational development responsive and accountable to local needs within a framework of national goals.

## Supporting environment and policies

Very limited learning took place in South Sudan between 1983 and 1993. Education was revived in 1993 under the umbrella of UNICEF and coordinated by the Sudan Relief and Rehabilitation Association (SRRA).<sup>100</sup> In 1999, the SRRA management of education was restructured to create the Secretariat of Education (SOE) under the leadership of the Commissioner for Education. The SOE works in close partnership with UNICEF and other agencies implementing education programmes in South Sudan.

The SOE is committed to meeting the Education for All targets and the MDGs. A revision of the Education Policy and the development of a five-year Master Plan provide the foundation for progress towards the achievement of MDG 2<sup>101</sup>. The challenges and costs of education over the 78 months covering the pre-interim and interim periods are outlined in *The Education Sector Plan of the New Sudan: Pre-Interim Period and January 2005 to December 2010*. The core objectives include:

- Increasing gross primary enrolment from 23% in 2003 to 52% by 2010
- Enrolling 15% of out-of-school youth annually in alternative education systems
- Enrolling a cumulative 15% of adults in literacy or accelerated learning programmes
- Improving the quality of basic education

In order to finance these objectives the SOE will spend 58% of its expected receipts from public expenditure (16%) on basic education – primary and alternative basic education.<sup>102</sup> Strategies to meet the objectives include:

- *More schools* – Increasing the number of schools from 1,600 in 2003 to at least 3,646 by 2010 through the construction of 2,046 new schools and the rehabilitation of existing schools, especially in under-privileged areas.
- *Better learning environment* – Improving the learning environment through the provision of water and sanitation facilities.
- *Attracting more teachers* – Addressing issues of recruitment and pay.
- *Alternative education* – The development and standardization of alternative education, comprising Accelerated Learning Programmes and technical and vocational training. This should target young people who missed the opportunity for education and are beyond the normal age of entry to basic education. These groups include child soldiers, adult SPLA soldiers, and young women.
- *Teacher training* – Establishing eight teacher-training institutes and a network of training resource centres and school cluster centres.
- *Learning materials* – The provision of adequate quality learning materials for pupils, teachers and education facilitators.
- *Curriculum* – Incorporating HIV/AIDS, peace building and the environment into the curriculum.

Some of these activities are already underway under the Sudan Basic Education Project and the Life Skills Programme. Several NGOs have piloted some accelerated learning programmes and prepared standard materials.

### **Priority strategic interventions and recommendations**

- *Multiple strategies* – Adopting multiple strategies to keep children in school, and expanding and standardizing alternative education programmes.
- *Children with disabilities* – Promoting the integration of children with disabilities in pre-school and primary school and including disability awareness in teacher-training courses.
- *Enrolment* – Expanding advocacy activities at community level to increase student enrolment through PTAs, community and religious leaders and local authorities.
- *Data collection* – Continuing support to the development of tools for school heads and education officials to record cohort data.
- *School facilities* – Addressing concerns on availability and access through support for community participation in provision of water and sanitation facilities. Site selection for new schools should take into account proximity to water and health facilities, and distances that children have to walk to attend school.
- *Donor support* – Advocating for long-term funding by donors to rebuild the education infrastructure and supply teaching materials.
- *Teacher recruitment and pay* – Increasing the numbers of trained teachers and encouraging central, regional and local authorities, PTAs and local communities to improve teachers' remuneration.
- *Transition strategies* – Adopting a flexible approach during the transition in dealing with expected changes in management of the education sector to ensure that delivery of services is not compromised.
- *Partnerships* – Strengthening existing partnerships and dialogue with partner agencies and donors.

- *Examinations* – Supporting proposed Measurement of Learning Achievement for the first four years of basic education, and establishing an examinations authority.

## Monitoring and evaluation environment

UNICEF/OLS and the Africa Educational Trust began the School Baseline Assessment (SBA) project in November 1998 to gather information on the operations and conditions of the primary school system. The SBA, which covered 1,426 out of an estimated 1,600 schools, is an important planning tool and provides a strong foundation for monitoring progress towards MDG 2.

Monitoring progress towards the attainment of universal primary education will entail the use of proxy indicators. The Secretariat of Education, which now manages the SBA databank (with support from AET and UNICEF), is expected to take the lead in data collection, with support from partner agencies in the education sector and with technical support from the South Sudan Centre for Statistics and Evaluation.

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Fair              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analysis capacities                                                                      | Fair              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Fair              |
| Monitoring and evaluation mechanisms                                                                 | Fair              |

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## Goal 3: Promote gender equality and empower women

**Target:** Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015

Table 16 – Indicators for gender equality and women's empowerment in South Sudan

|                                                                                         | 2000          | 2003     | 2004 |
|-----------------------------------------------------------------------------------------|---------------|----------|------|
| Ratio of girls to boys in primary education                                             | 35.9%         | 40%      |      |
| In secondary education                                                                  |               | 1.2<br>% |      |
| Ratio of literate females to males (15-24 year olds)                                    | 31%           |          |      |
| Proportion of women in SPLM Leadership Council (out of 15 seats)                        |               |          | 0%   |
| Proportion of seats held by women in National Liberation Council (15 out of 83)         | 18%<br>(1994) |          |      |
| Proportion of seats held by women in National Executive Body (1 out of 21 Secretariats) |               |          | 5%   |
| Proportion of women holding position of County Secretary (1 out of 50 counties)         |               |          | 2%   |

Source: UNICEF/AET, 2003; SSCSE, 2004a; SPLM/USAID, 2004

### Gender equality – status and trends

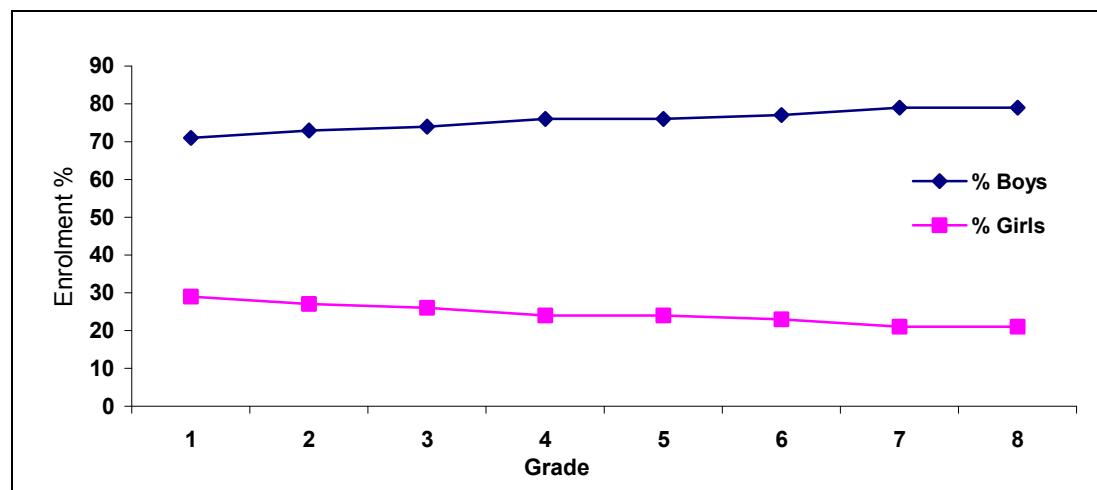
The elimination of gender disparity in primary and secondary education by 2005 and to all levels of education no later than 2015 presents a formidable challenge. It will require strong commitment of the leadership of the SOE and other players in the sector including community members.

#### ***Ratio of girls to boys in primary and secondary education***

A total of 84% of girls in southern Sudan have no access to education.<sup>103</sup> Girls make up only 27% of all primary school enrolment and consistently make up less than one-third of pupils in each grade.<sup>104</sup> Further, only about 500 girls finish primary education each year.<sup>105</sup> The disparity is more pronounced at secondary level: in 2003, there were 22 community secondary schools in Southern Sudan, with an estimated student population of 4000, 10% of whom were girls<sup>106</sup>.

There are also significant regional disparities: girls make up 16% of total enrolment in Bahr el Ghazal, for example, but 27% in Upper Nile and 37% in Equatoria. The proportion of girls declines sharply after grade 1, where they account for 29% of enrolments, to slightly over 20% in grades 7 and 8. A better illustration of the differences in enrolment ratios is offered by the 'absolute gender gap', which compares the percentage of boys in each grade to the percentage of girls in the same grade. The gender gap widens significantly in the higher grades from 42 percentage points in grade 1 to 58 percentage points in grades 7 and 8.<sup>107</sup>

**Table 17 – Absolute gender gap in South Sudan**



Source: UNICEF/AET, 2003.

The low enrolment of girls in primary school is attributed to the following factors.

- *Heavy domestic workload* – Traditionally, women and girls carry out the most time-consuming tasks, such as weeding, fetching water, gathering food and cooking. In areas of heavy conflict, they are further burdened by having to take on the responsibilities of absent male members.
- *Early, and often forced, marriages* – These severely curtail the pursuit of education by girls and are largely responsible for drop-out. Once a girl reaches puberty, her perceived economic value, in the form of bride wealth or economic security, far outweighs any future benefits that might accrue to her as an individual if she were to become literate.<sup>108</sup>
- *Shortage of female teachers* – Only 7% of teachers are female. Parents are often reluctant to send their daughters to a school that has only male teachers.
- *Institutional barriers* – These have excluded girls from education since colonial days, fostering attitudes that literacy was only for boys.

Several agencies are supporting girls’ education by providing incentives designed to increase their enrolment. These include supporting the establishment of girls’ schools, recruiting women teachers, and providing sponsorships, school uniforms and basic hygiene supplies.<sup>109</sup>

### **Ratio of literate females to males among 15-24 year-olds**

The gains from women’s literacy are undisputed. The better a woman’s education, the more likely her children are to survive and enjoy a better quality of life. There are no gender-disaggregated data on alternative learning centres for South Sudan. However, it is estimated that 90% of women in South Sudan are illiterate<sup>110</sup>.

### **Share of women in wage employment**

Anecdotal evidence suggests that women produce goods and services for markets at household and community levels, but little is known about their resource base, their production output or their levels of skill.<sup>111</sup> Like other statistics, the share of women in wage employment is difficult to estimate. Women teachers constitute 7% of teachers in Southern Sudan<sup>112</sup>, and comprise less than 1% of the civil service staff workforce.<sup>113</sup>

Women engage in a number of income-generating activities. A baseline study on the status of women in Yei and Mundri in Western Equatoria, for example, reported that of 547 respondents, 32% were engaged in petty trade and 45% were involved in brewing and selling beer<sup>114</sup>.

### ***Proportion of seats held by women in the national Parliament***

The dismal representation of women at all levels of the SPLM leadership and decision-making bodies belies its political commitment to achieving 25% women's representation at all levels. A demand for increased representation of women in the SPLM National Liberation Council culminated in the allocation of 18% of seats in the Council during the National Convention in 1994. However, women's representation in the SPLM Leadership Council (0%) and executive bodies at national (5%), regional (0%) and county levels (2%) remain woefully below the SPLM and MDG targets. Even at the community level, women account for only 28% of participants in parent-teacher associations.<sup>115</sup> This means that progress towards the attainment of the MDG target will be an arduous task.

### **Challenges**

Most other sectors, including political administration, education and health have gender-related challenges. Among those requiring immediate attentions are:

- *Gender-sensitive policies* – The lack of gender-sensitive development policies or programmes that would lead to women's participation at all levels.
- *Data* – The lack of comprehensive gender-disaggregated data to evaluate the current status of women and to monitor the impact of policies and programmes on their status.
- *Education* – Creating an enabling environment for promoting gender equality in schools through legislative and policy reform.
- *Female teachers* – insufficient female teachers and limited numbers of women in leadership positions to provide role models for girls.
- *Culture* – Overcoming cultural barriers that hinder enrolment and retention of girls in schools
- *Decision-making* – Achieving active participation of women in decision-making processes.
- *Secretariat* – Lack of capacity in the Secretariat for Women, Gender, and Child Welfare (SWGCV) since its creation in 2000, it has been unable to effectively function due to budgetary constraints and inadequate institutional capacity.
- *Enforcement* – Lack of enforcement of laws to protect the rights of women and girls especially at the community level.

### **Supporting environment and policies**

Despite proclamations on the protection and promotion of women's rights, and efforts by humanitarian agencies to include women-focused economic initiatives, there is still a wide gap between the current and the desired status of women. In recognition of the role of women during the war, the SPLM created the Secretariat for Women, Gender, and Child Welfare. However, the resolutions to ensure equality have yet to be translated into actual policies and laws.<sup>116</sup>

Nevertheless there are now more efforts to address these problems. Strategies to promote girls' education are included in *The Education Sector Plan of the New Sudan: Pre-Interim Period and January 2005 to December 2010*.<sup>117</sup> The targets to be met by 2010 include:

- Increasing girls' enrolment from 11% to 35% of the out-of-school age group, and reduce the girls' dropout rate by 30%.
- Increasing the number of community village girls' schools to over 3,000.
- Making women the focus of adult literacy programmes in the Accelerated Learning Programmes.

- Developing a scholarship policy to benefit girls in secondary schools.

Planned activities include strengthening the Girls' Education Department, adopting gender-sensitive teacher training, recruiting more female teachers, appointing female head teachers, providing scholarships for secondary education, carrying out sensitization and advocacy through parent-teacher associations and community structures, and using of gender-neutral instruction materials.

The SWGCW is committed to the promotion of women's empowerment and their participation in socio-economic, cultural and political activities. Its draft Operational Plan (2004) provides the foundation for the development of a policy framework to address gender and women and child welfare issues.<sup>118</sup> The gender, women and child welfare policy into law is expected to be enacted into law in 2005.

### **Key strategic interventions and recommendations**

Addressing underlying causes that inhibit girls' full participation in schooling through:

- *Girls' schools* – Expanding community schools for girls'.
- *Female teachers* – Accelerating recruitment and training of female teachers and head teachers.
- *Leadership* – Appointing women to positions of leadership in the education sector.
- *Awareness* – Expanding advocacy activities to promote community awareness of the benefits of female education.
- *Incentives* – Continuing support to programmes providing incentives for increased enrolment and retention of girls in schools.
- *Boarding facilities* – Support the establishment of more boarding facilities for girls.
- *Pre-schooling* – Supporting and expanding pre-school programmes.

Addressing illiteracy among women through:

- *Alternative schooling* – Continuing support to programmes that provide alternative learning to out-of-school females.
- *Curricula* – Standardizing 'alternative education' curricula and incorporating life skills, and income-generating aspects.

Addressing institutional barriers to gender parity:

- *Secretariat* – Adopting the policy and legal framework of the Secretariat for Women, Gender, and Child Welfare and enabling the Secretariat to be fully functional by providing sustained budgetary and capacity-building support to address staffing and operational needs.
- *Policy* – Developing a comprehensive gender-sensitive development policy and enforcing laws that will lead to societal changes of attitudes towards women.
- *Mainstreaming* – Advocating for mainstreaming gender issues in legislation, policies and programmes in all sectors of the economy.
- *Affirmative action* – Appointing women to positions of leadership in the political and administrative structure at all levels.
- *Collaboration* – Achieving closer collaboration between national and international agencies, donors, the private sector and institutions that are working to empower women and girls in southern Sudan and internationally. This should involve networking, sharing information and developing partnerships.
- *Enforcement* – Enforcing the rights of women and girls at all levels.
- *Analysis* – Engaging in a comprehensive analysis of gender relations at the macro and micro levels in all sectors. This should help address underlying conditions that produce unequal access to education and other opportunities.



## Monitoring and evaluation environment

The SBA gender-disaggregated data and the Rapid Enrolment Assessment provide a useful basis for tracking progress in tracking education statistics. The Secretariat for Women, Gender and Child Welfare will also monitor gender mainstreaming and the representation of women in leadership positions. This information should provide the basis for measuring progress towards the attainment of MDG 3. SOE and SWGCW, supported by partner agencies and donors, are expected to take the lead role in data collection, and will gain from collaboration with the SSCSE.

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Fair              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## Goal 4: Reduce child mortality

**Target 5:** Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

Table 18 – Indicators for child mortality in South Sudan, 2001

|                                                              |     |
|--------------------------------------------------------------|-----|
| Under-five mortality rate per 1,000 live births*             | 250 |
| Infant mortality rate per 1,000 live births*                 | 150 |
| Proportion of children immunized against measles vaccine (%) | 25  |

Source: SSCSE, 2004a

\*Based on UN Population Division model data

### Child mortality – status and trends

Child mortality rates are high as a result of the high disease burden, poor health service coverage and high rates of malnutrition<sup>119</sup>. However since there have been no baseline studies in South Sudan it is not possible to measure trends.

#### Infant mortality rates

High infant mortality rates, of 150 deaths per 1,000 live births, reflect the fact that first of all most births, around 95%, take place at home, without a skilled birth attendant<sup>120</sup>. Subsequently there is little postnatal care and children are not getting immunized against the commonest childhood diseases: in 1999, three out of four children under 12 months old did not receive the first dose of the diphtheria, pertussis and tetanus (DPT) vaccination, and two-thirds were not immunized against measles.<sup>121</sup> Children are also much more likely to survive if they are well nourished – exclusively breastfed for the first six months and then receive suitable weaning food. However, only about 30%<sup>122</sup> of children are exclusively breastfed and several nutrition surveys have identified poor care and weaning practices that contribute to poor nutrition.

#### Under-five mortality rates

An under-five mortality rate of 250 means that one out of every four children one will die before the age of five. The main causes and contributing factors are:

*Vaccine-preventable diseases* – Many children are falling victim to diseases that could have been prevented by immunization. Vaccination coverage is very low: under the routine Expanded Programme on Immunization (EPI) and pulse campaigns for all antigens in South Sudan coverage in 2003 was recorded as 12% for measles, 24% for Bacillus Calmette Guérin (BCG), and 15.6% for DPT-1 and 7.5% for DPT-3.<sup>123</sup> The polio eradication programme on the other hand has been a phenomenal success since the inception of National Immunization Days: between 1998 and 2003 the number of children immunized against polio has increased steadily from 800,000 to more than 1.8 million.<sup>124</sup> South Sudan has not had a single reported case of wild polio, i.e. from a strain not related to the vaccine, since 2001.

*Other preventable and treatable diseases* – The major causes of morbidity include malaria (27%), diarrhoea (14%) and acute respiratory infections (10%)<sup>125</sup>. However prevention and treatment measures for these diseases are very limited. In the case of malaria, for example, the 2000 Multiple Indicator Cluster Survey indicated that only 36% of under-fives slept under bed nets, and only 36% of under-fives with fever were treated with anti-malarial drugs. The situation is even worse for diarrhoea, since any children with diarrhoea are treated with oral rehydration salts. Treatment is also limited for acute respiratory infections (ARI): in 2000, out of the 30% of children with ARI, only 42% were treated at a health post.<sup>126</sup> The best approach for reducing child mortality is Integrated Management of Childhood Illnesses – an approach that combines both preventive and curative elements that can be implemented not just by health

facilities but by families and communities. This is now being used in 80 developing countries worldwide but only to a very limited extent in South Sudan<sup>127</sup>.

*Malnutrition* – Malnutrition is an outcome of a number of factors, including food insecurity, diseases related to unsafe water supplies and poor sanitation, as well as poor childcare practices. In 2001, the overall level of malnutrition, as measured by low weight for age, was estimated at 48%.<sup>128</sup> The other indicators of malnutrition, based on under-five children's upper arm-circumference are global acute malnutrition (GAM) and severe acute malnutrition (SAM) – see page 52. In 1998, at the height of the famine these were way above national emergency levels, GAM and SAM were recorded at 80% and 40% respectively. In 2001, in Bahr el Ghazal and Upper Nile 20 nutritional surveys indicated a GAM of 20%. In 2002, 11 nutritional surveys in the same regions indicated a GAM rate above 15% and in some cases over 30%<sup>129</sup>. In 2003, GAM in these areas were still as high as 30% – with an extreme value of 39% and rates of SAM across South Sudan ranged from 6% to 8%.<sup>130</sup>

*Micronutrient deficiencies* – Children in South Sudan also suffer from micronutrient deficiencies. Many are, for example, deficient in iodine and as a result can suffer from goitre and reduced mental capacity. The solution to this is to consume iodized salt though this is only being used in 5%-10% of households<sup>131</sup>. Another common deficiency is of vitamin A, which among other things can reduce resistance to a range of diseases. Here there has been more positive action: since 1998 children have been given vitamin A supplements during national immunization days. In 2000, for example, more than 900,000 children under five years received a dose of vitamin A, and by 2003, the number had risen to 1,485,539 – 88% of children under five.<sup>132</sup>

## Challenges

- *Health care system* – The high rates of infant and child mortality are largely due to inadequacies in the primary health care system in terms of coverage, poorly qualified health personnel and a lack of knowledge among primary caregivers.
- *Infrastructure and staffing* – Accessibility to health services is constrained by lack of transport due to poor infrastructure. There are a total of 788 scattered healthcare facilities serving a population of about 7.5 million<sup>133</sup>. There is also a lack of adequately trained health personnel: most of the health workforce consists of community health workers (CHWs), and maternal and child health workers (MCHWs), who have only nine months' training. There are a total of 88 doctors, 192 clinical officers, 647 nurses, 719 health technicians and 2,593 community-level workers<sup>134</sup>. Effective delivery of health services is also hampered by insufficient quantities of appropriate drugs and other supplies.
- *Health expenditure* – Expenditure on health services is low and relatively little reaches the patients: of approximately \$50 million spent annually on health and nutrition only \$1 to \$2 per capita reaches the patient as 80% is spent on transport costs and expatriate staff.<sup>135</sup>
- *Conflict* – In Upper Nile and Equatoria, pockets of conflict and ethnic clashes impede access to vulnerable populations.
- *Preventive care* – Many primary caregivers know little of the advantages of preventative health care and nutrition – leading to poor practices in hygiene, sanitation and child rearing.
- *Secretariat of Health* – The Secretariat does not have sufficient financial, technical or human capacity to support the coordination, supervision and monitoring of health service delivery.

## Supporting environment and policies

The *Health Policy of the New Sudan*<sup>136</sup> emphasises primary health care (PHC) and community involvement, and sets out standards of service coverage in terms of numbers, staffing and services to be provided by each type of facility.

Currently most health services in South Sudan are supported and implemented by UN agencies (particularly WHO and UNICEF), international NGOs, Sudanese NGOs, faith-based organizations and community-based organizations. Since the Secretariat of Health still lacks the necessary financial and human resources, this reliance on external support is expected to continue in the short term.

### Key strategic interventions and recommendations

- *IMCI* – Expansion of IMCI to reduce child mortality and morbidity through training of local health workers. In marginalized areas, community members should be trained in IMCI protocols to ensure early diagnosis and timely interventions.
- *Malaria* – To combat malaria, long-lasting insecticide-treated nets should be distributed to under-fives and pregnant mothers.
- *Preventive health care* – Healthcare facilities when providing services should also offer basic hygiene and preventive health messages.
- *Immunization* – Coverage against vaccine-preventable diseases of childhood should be universal
- *Nutrition* – Standards of nutrition should be monitored at specific sites using an accepted and standardized methodology. All health facilities should undertake growth surveillance and provide micronutrient supplements.
- *Training* – Primary and tertiary level health personnel should receive more extensive training.
- *Health Secretariat* – Capacity building to enable it to meet its operating costs and effectively play its coordination and monitoring role, especially at field level.
- *Joint programming* – With education, water and food security sectors.

### Monitoring and evaluation environment

The Secretariat of Health and health agencies face challenges in many areas, but they do have an opportunity to improve data collection so as to enhance planning and decision-making. In conjunction with the SSCSE and operational agencies, they should therefore make concerted efforts to standardize and harmonize data collection.

|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Fair              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

## Goal 5: Improve maternal health

**Target:** Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio

Table 19 – Key indicators for maternal health in South Sudan, 2000

|                                                      |       |
|------------------------------------------------------|-------|
| Maternal mortality ratio (per 100,000 live births)   | 1,700 |
| Proportion of deliveries by skilled health personnel | 6%    |

Source: SSCSE, 2004a

### Maternal Health – status and trends

Though there are no data for South Sudan, at the global level it has been estimated that 80% of maternal deaths are directly related to obstetric haemorrhage, obstructed labour, eclampsia or unsafe abortions; the other 20% are related to pre-existing conditions such as malaria, HIV/AIDS, hepatitis, anaemia and micronutrient deficiencies.

Mothers in South Sudan face a number of risks in pregnancy – including early marriage and close spacing of children due to the pressure to replace family members lost to conflict. Another is a heavy workload during pregnancy: in Narus and New Cush in Eastern Equatoria, for example, the high incidence of miscarriages has been attributed to strenuous daily chores<sup>137</sup>. All these risks are compounded by an inadequate health delivery system.

#### **Maternal mortality ratio**

Some studies have estimated that the maternal mortality ratio (MMR) ranges from 400 to 800 per 100,000 live births<sup>138</sup>. However, given a high fertility rate of 6.7<sup>139</sup>, the fact that women start bearing children at a very young age and the virtual absence of emergency obstetric care, the figure could be much higher. Another estimate suggests 1,700 per 100,000 live births.<sup>140</sup>

#### **Proportion of births attended by skilled health personnel**

Most women give birth either alone or with the help of traditional birth attendants; only 5% benefited from supervision by skilled attendants such as midwives. The number of midwives is very limited, partly because South Sudan has no midwife training schools, but also because there are few candidates for training as a result of the breakdown of the education system during the war.

#### **Health infrastructure**

Even before the conflict, the health infrastructure was inadequate, and has subsequently deteriorated. Currently, there are 783 health care facilities; of these 88% are minimal health posts and only 6% are referral hospitals.<sup>141</sup> These serve an estimated 7.5 million people, leaving around 40% of the population with no access to health services at all.

#### **Family planning services**

Hospitals and primary health care centres do not regularly provide family planning services. Less than 1% of couples are using contraceptives.<sup>142</sup>

## ***Antenatal and postnatal care***

Antenatal services are the most common preventative health service available in South Sudan<sup>143</sup>. Nevertheless, in 2000 only an estimated 16% of women received antenatal care from trained health personnel. Antenatal services should, for example, screen and treat women for anaemia, malaria, and sexually transmitted diseases and provide protection against tetanus toxoid. They can also educate women about pregnancy.

Malaria is a major cause of severe anaemia in pregnant women. Intermittent preventative treatment, as well as the use of insecticide treated bed-nets has been known to reduce maternal anaemia and reduce pre-term delivery.

Anaemia can also be reduced by the administration of iron folate. Although women attending clinics do receive vitamins and iron the distribution is not monitored, making it difficult to ascertain their impact. Information on postnatal care is also limited as practice not standardised.

In 1999, most women and their newborns were not protected against tetanus toxoid (TT). The situation improved somewhat following the launching of a measles and maternal neonatal tetanus pulse campaign targeting women of childbearing age in six counties of South Sudan in 2001. In 2002, 23% of women were reached with TT1, and 15% with TT3, during pulse and routine immunization.<sup>144</sup>

Antenatal services can also provide early warning of complications in pregnancy. Traditional birth attendants (TBAs) might also be able to do this. Most agencies train TBAs in the detection of complications in pregnant women but it is difficult to say how effective this has been since most births take place at home and there are few services to which they could refer women in emergencies.<sup>145</sup>

## **Challenges**

- *Infrastructure* – Ensuring a health infrastructure that facilitates consultation and referral of women who require specialized obstetric care
- *Supplies* – Adequate supplies of drugs, medical equipment and transport.
- *Skilled birth attendants* – Ensuring access and availability of skilled birth attendants at community level.
- *Antenatal care* – Sustained provision of adequate antenatal care.
- *Literacy* – Basic literacy levels in the community will help fully appreciate the value of preventative maternal health care.
- *Reproductive health care* – Availability of reproductive health care services.
- *Health Secretariat* – Funding for the Health Secretariat to address human resource and operational costs needs.
- *Disparities* – Regional imbalances in accessibility to medical services.

## **Supporting environment and policies**

The *Health Policy of the New Sudan*<sup>146</sup> emphasises primary health care and community involvement, and sets out standards of service coverage in terms of numbers, staffing and services to be provided by each type of facility. The policy envisions a decentralized system with different responsibilities at each level. It also emphasize the importance of maternal and child health.

In the short and medium terms it seems likely that most health services will continue to be supported and implemented by UN agencies (particularly WHO and UNICEF), international NGOs, Sudanese NGOs, faith-based and community-based organizations.

## Key Strategic Interventions and recommendations

- *A maternal health package* – South Sudan urgently needs to offer a comprehensive maternal health service package. This should include family planning services, skilled birth attendants, antenatal services<sup>147</sup>, emergency obstetric care, and strong links between the community and the first level of the referral system.
- *Traditional birth attendants* – TBAs should be integrated into national health policies would to ensure funding and improve their training and practices. They should be trained in clean and safe delivery practices, proper management of labour, early recognition of complications and referral strategies. They should also have access to safe delivery kits whose supplies are regularly replenished.
- *Midwives* – Development of a midwifery training programme to improve quality of and access to maternal services at the community level.
- *Emergency obstetric care* – Improve the quality of emergency obstetric care by providing support to referral services.
- *Education* – Increase community education on the value of maternal health care services.
- *Antenatal care* – Address indirect causes of maternal deaths through increasing access to antenatal care.

## Monitoring and evaluation environment

At present the monitoring of maternal services is inconsistent. Their needs to be proper tracking of selected indicators to guide policy decisions and facilitate planning. It will also be essential to support the current health information system and its transfer to the Secretariat of Health with the necessary skills and capacity building.

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|                                                                                                    | Assessment |
|----------------------------------------------------------------------------------------------------|------------|
| Data-gathering capacities                                                                          | Weak       |
| Statistical tracking capacities                                                                    | Weak       |
| Statistical analytical capacities                                                                  | Weak       |
| Capacity to incorporate statistical analysis into policy planning & resource allocation mechanisms | Weak       |
| Monitoring and evaluation mechanisms                                                               | Weak       |

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## Goal 6: Combat HIV/AIDS, malaria and other diseases

**Target 7:** To have halted by 2015, and begun to reverse, the spread of HIV/AIDS.

Table 20 – Indicators for HIV/AIDS in South Sudan, 2001

|                                                   |     |
|---------------------------------------------------|-----|
| <i>HIV prevalence rate, age 15-49 years (%)</i>   | 2.6 |
| <i>HIV prevalence, males aged 15-24 years (%)</i> | 1.1 |
| <i>HIV prevalence, women 15-24 years (%)</i>      | 3.1 |
| <i>Contraceptive prevalence rate (%)</i>          | <1  |

Source: SSCSE, 2004a

### HIV/AIDS – Status and Trends

There is relatively little information on the status of HIV/AIDS in South Sudan as a whole. Surveys have, however, been carried out in some of the higher-risk areas to provide baseline information on HIV prevalence rates and on sexual behaviour, and to identify high-risk groups. They also included studies on knowledge, attitudes, behaviour and practice (KABP) that can provide the basis for monitoring trends in behaviour and for targeting interventions.

KABP surveys have been carried out in specific locations including Yei, Yambio, Rumbek, and Mundri. UNICEF carried out a feasibility study on the establishment of prevention of mother-to child-transmission services in health facilities, and a KABP survey among community-based organizations and health workers in Yambio in 2003. All the KABP surveys have found that though knowledge about HIV/AIDS was greater in towns than in rural areas, people also had misconceptions about its transmission and prevention. Further, after two years of awareness campaigns in selected areas, though knowledge about sexual transmission of AIDS was high, awareness about other modes of transmission remained low. Adjusted results from the 2000 Multiple Indicator Cluster Survey in South Sudan indicated that 60% of adults had never heard about AIDS and 10% of those who had heard about the disease knew nothing about its relationship to unprotected sex.<sup>148</sup>

### HIV prevalence rates

UNAIDS model data of 2001-estimated prevalence among adults (15-49 years) at 2.6%, among males aged 15-24 at 1.1%, and for females in the same age group 3.1%.<sup>149</sup> The HIV/AIDS epidemic in South Sudan is believed to have moved into the generalized phase where, with an overall adult prevalence greater than 1%, infection has gone beyond high-risk groups into the general population. Other risk factors will further spread the disease.

A number of studies have been carried out among various population groups in selected sites of South Sudan since 1996. Their main findings are summarised in Table 20 and Table 21.

Table 21 – HIV prevalence at selected sites, South Sudan, 1997-2002

| Date       | Source | Infected population |          |                  | HIV prevalence |
|------------|--------|---------------------|----------|------------------|----------------|
|            |        | Region              | Location | Group            |                |
| 8/96       | IMC    | Equatoria           | Tambura  | 100/Antenatal    | 4%             |
| 12/97-1/98 | UNDP   |                     | Chukudum | 104/OPD Clinic   | 3.8%           |
|            |        |                     | Maridi   | 507/OPD Clinic   | 2.6%           |
| 1998       | IMC    |                     | Tambura  | 500/General Pop. | 1.6%           |
| 1999       | IMC    |                     | Ezo      | 500/General Pop. | 2.0%           |
| 2000       | IMC    |                     | Yambio   | 750/General Pop. | 7.2%           |



|           |         |                |                   |                              |                   |
|-----------|---------|----------------|-------------------|------------------------------|-------------------|
| 9/00-7/02 | NPA     |                | Yei Hospital Only | 461 blood donors             | 4.6%              |
| 2000      | IMRF    | Upper Nile     | Upper Nile        | 540 TB/Kalazar patients      | 0%                |
| 2001      | MSF-H   |                | Upper Nile        | 682 TB/Kalazar patients      | 0.3%              |
| 12/02     | CDC/ARC | Equatoria      | Yei Town          | Adults 15-49 years/Gen. Pop. | 4.3%<br>(25/588)  |
|           |         |                |                   | Pregnant women Yei Town      | 2.3%<br>(5/221)   |
|           |         |                |                   | STI patients                 | 5.8%              |
|           |         |                | Yei River County  | Adults 15-49 years /Gen.Pop  | 2.7%<br>(28/1034) |
| 4/03      | CDC/IRC | Bahr el Ghazal | Rumbek            | General Pop.                 | 0.9%              |

Source: Richer, M., 2002.

Table 22 – HIV prevalence rates among Sudanese in refugee camps

| Date      | Source  | Infected Population |                        | HIV prevalence |
|-----------|---------|---------------------|------------------------|----------------|
|           |         | Location            | Group                  |                |
| Not known | CDC/IRC | Kakuma (Kenya)      | Antenatal Clinic       | 5%             |
|           |         |                     | STI patients           | 9%             |
| 1993      | CDC     | Gambella (Ethiopia) | Males>21 years         | 6%             |
|           |         |                     | Males<21 years         | 4%             |
|           |         |                     | Commercial Sex Workers | 36%            |

Source: Richer, M., 2002.

### Factors affecting HIV/AIDS transmission in South Sudan

Most people in South Sudan know little about HIV/AIDS – how it can be transmitted and prevented. They also have a number of misconceptions. Lack of knowledge at the individual level is compounded at household and community levels by poverty and cultural practices such as polygamy, wife inheritance and scarification.

They are also more exposed because, as a result of cultural inhibitions, less than 1% use condoms.<sup>150</sup> In addition they are vulnerable because of the prevalence of sexually transmitted infections since these are commonly associated with HIV/AIDS. People with STIs will have difficulty in obtaining effective treatment since health facilities lack appropriate drugs and trained health providers. South Sudan does not have a standardized system for surveillance. Nor are people living with HIV/AIDS likely to receive treatment for HIV/AIDS itself, apart from treatment for opportunistic infections.

Communities close to the border are also exposed to the free movements of people from neighbouring countries that have high HIV/AIDS prevalence's, such as Kenya, Uganda and Democratic Republic of Congo. As a result of the anticipated peace agreement many refugees will also return from these countries.

Preventing HIV/AIDS involves targeting all people at risk or who are vulnerable to the infection<sup>151</sup>. So far interventions have focused on behavioural change communication and voluntary counselling and testing. In a few locations there have also been KABP and seroprevalence surveys.

A number of agencies have been involved in behaviour change communication activities, raising awareness among all members of the community, using limited standardized training material that has been translated into five local languages. The Secretariat of Education, for example, in conjunction with UNICEF and Sudanese professionals, has developed HIV/AIDS ‘life-skills’ modules for youth, which they are using in Rumbek and Yambio and are developing for inclusion in the school syllabus.

### **Orphans**

There are no figures on AIDS orphans in South Sudan. However, the situation is unlikely to be critical since HIV prevalence is relatively low and because family ties tend to be strong.

### **Challenges**

The challenges include addressing the risk factors, raising awareness and meeting the gaps in the capacity of the health services to provide quality health care.

- *Resources* – The New Sudan National AIDS Council (NSNAC) and the Secretariat of Health have limited resources to enable them to operate effectively.
- *Skills* – At both central and field levels, few people have the expertise to diagnose and treat STIs and HIV/AIDS.
- *Monitoring* – There is no HIV/AIDS or STI baseline and surveillance system.
- *Illiteracy* – Awareness campaigns that use leaflets are hampered because many people cannot read.
- *Weak health services* – Health services have limited capacity to test and screen blood for HIV and other STIs or to provide treatment.
- *Lack of knowledge* – Few people know about HIV/AIDS, or they have serious misconceptions, making it difficult to encourage behaviour change.
- *Testing* – South Sudan has fewer than five centres for voluntary counselling and testing – and only a small number of trained counsellors.

### **Supporting environment and policies**

In 2001, the SPLM formulated a National HIV/AIDS Policy – with detailed strategies to prevent or decrease HIV transmission, to reduce HIV/AIDS-related morbidity and mortality and to protect the lives of persons living with HIV/AIDS. Then in 2002 to guide the implementation of the policy the SPLM created the New Sudan National Aids Council comprising 15 members drawn from various sectors of the SPLM commissions including the Health Secretariat. The NSNAC’s mandate includes coordination, supervision, regulation, monitoring and evaluation, and the advocacy for resources. It is supported and advised by a national HIV/AIDS task force whose membership includes UNICEF and international and national NGOs.

### **Key strategic interventions and recommendations**

- *Capacity building* – Strengthening the capacity of the Secretariat of Health and the NSNAC to implement the HIV/AIDS policy.
- *Prevention* – Training health providers on HIV/AIDS prevention strategies, including behaviour change communication, safe sex, abstinence, and improved diagnosis and treatment of STIs.
- *Treatment* – Training health providers on HIV/AIDS treatment strategies, including treatment of opportunistic infections, nutritional counselling and education on the use of safe water.
- *Surveys* – Conducting more KABP and prevalence surveys to broaden the information base and inform planning.
- *Statistics* – Strengthening the Health Information System to include indicators for measuring relevant HIV/AIDS and STI data.

- *Sexually transmitted infections* – Supporting STI treatment units and adopting standardised protocols for improved diagnosis and treatment of STIs.
- *Counselling and testing* – Training more VCT counsellors and establishing more VCT centres.
- *Behaviour change* – Reinforcing culturally acceptable community awareness campaigns, making use of religious leaders, traditional healers, community leaders and local authorities.

## Monitoring and evaluation environment

South Sudan lacks a coordinated, centralized and standardized system for collecting data on the number of people affected. The Health Information System, currently managed by UNICEF, collects and analyses health data but covers only a limited number of counties. It will be important to strengthen the data-collection capacity of the Secretariat of Health.

|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

**Target 8:** Have halted by 2015, and begun to reverse the incidence of malaria and other major diseases.

### *Indicators*

- Prevalence and death rates associated with malaria
- Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures
- Prevalence and death rates associated with tuberculosis
- Proportion of TB cases detected and cured under directly observed treatment short course (DOTS)

Table 23 – Key indicators on malaria in South Sudan

| Indicator                                                      | Year                        |      |
|----------------------------------------------------------------|-----------------------------|------|
|                                                                | 2000                        | 2002 |
| Percentage of under-fives sleeping under ITNs                  | 36% sleeping under bed nets |      |
| Percentage of febrile under-fives treated with anti-malarials  | 36%                         |      |
| Prevalence rates associated with tuberculosis (per 100,000)    | 325                         |      |
| Proportion of tuberculosis cases detected and cured under DOTS | 6%                          |      |

Source: SSCSE, 2004a; World Bank 2003

## Malaria

Malaria is responsible for over one million deaths annually in sub-Saharan Africa, 30% of which occur in countries such as South Sudan that are affected by complex emergencies<sup>152</sup>. In most areas of South Sudan malaria is considered hyper-endemic – endemic at a high level, in all age groups. Some areas are also considered ‘holo-endemic’ – endemic at a high level early in life, leading to a state of equilibrium such that the adult population shows evidence of the disease less often than do the children.

Because of a lack of a reliable data it is not possible to calculate death rates from malaria. However, it is thought that malaria accounts for 40% of all health facility visits.<sup>153</sup> In 2003, all regions reported a significant increase in the number of malaria cases – attributable to heavy rainfall following two years of drought, which created conditions favourable for mosquito breeding.

Many groups are at high risk: the internally displaced; returnees; non-immune people moving from areas of low transmission to highly endemic areas; pregnant women; and all children under five years of age. They are even more vulnerable when they are also suffering from other illnesses and as well as malnutrition and have limited access to health facilities or drugs.

Preventative measures include long-lasting insecticide-treated nets (LLITNS), intermittent preventive therapy (IPT).

*Long-lasting insecticide-treated nets* – These have been known to reduce malaria illness among all ages by 50%, severe malaria in under-fives by 40%, and malaria-specific mortality in under-fives by as much as 63%<sup>154</sup>. For 1999, however, the MICS reported that 64% of children under-five in South Sudan did not sleep under a bed net.

*Intermittent preventive treatment* – Giving pregnant women several doses of sulphadoxine-pyrimethamine can reduce malaria-induced maternal anaemia, pre-term delivery and low birth-weight for infants. However, this ‘intermittent preventive treatment’ (IPT) is available in only a few health facilities. The Roll Back Malaria programme, which advocates the use of LLITNs together with IPT, is also still at a nascent stage.

*Treatment* – A number of agencies are treating malaria using combination therapy. However, chloroquine, which is the first-line treatment, is now facing drug resistance<sup>155</sup>. Pending an official change in WHO policy, interim guidelines for treatment are in place.

At present many people do not know of the importance of the preventive measures. More funding is needed to support awareness campaigns to promote their acceptability and use, as well as the benefits of seeking early treatment.

## **Tuberculosis**

Because of inconsistent demographic, socio-economic and epidemiological information, there are few reliable data on the burden of tuberculosis. It is, however, estimated that the annual risk of infection is 2%, which translates to a prevalence of 325 cases per 100,000 population<sup>156</sup>. The available treatment programmes currently cover only 25% of the estimated total population of approximately 7.5 million people. Vulnerability to the disease is heightened by poverty, malnutrition, displacement and limited health services both in terms of numbers and distribution of treatment facilities.

TB can be controlled through a combination of good case management and properly applied TB-chemotherapy<sup>157</sup>. One of the most cost-effective interventions is the directly observed short-course (DOTS) strategy, though this was fully adopted only in 2002 and is not yet in widespread use. Currently eight organizations are providing TB control services in South Sudan, in collaboration with local authorities and international partners.

## **Other diseases**

Sudan’s unique socio-economic, geography and ecology expose its people to several major infectious and parasitic diseases, but its poor health infrastructure continues to hamper efforts to control them effectively. These diseases include leishmaniasis (kala azar), guinea worm, yellow fever, schistosomiasis, sleeping sickness, leprosy and onchocerciasis.

In 2003, there were 26 reports of suspected outbreaks of disease, 50% of which were confirmed<sup>158</sup>. The main cases were of yellow fever, whooping cough, measles, meningococcal meningitis and malaria. In response to the yellow fever outbreak in Eastern Equatoria in 2003, and in efforts to enhance surveillance, WHO carried out training on yellow fever surveillance for a total of 170 health workers, polio field staff and community leaders. Response to outbreaks is hampered by late reporting and limited resources.

## Challenges

- *Funding* – Limited funding for the health sector in South Sudan.
- *Data* – There is no standardized methodology for collecting data on relevant indicators, making it difficult to calculate prevalence and death rates associated with malaria and TB.
- *Treatment* – For malaria and TB, there is limited implementation of standardized treatment protocols along WHO guidelines.
- *Supplies* – Insufficient drugs and other medical supplies to effectively manage and treat malaria and TB.
- *Staff* – Limited numbers of health workers.
- *Lack of community awareness* – Limited application of community-based integrated management of childhood diseases, leading to poor community awareness of key prevention methods and of the need to seek treatment.
- *Training* – Health providers have limited training on WHO treatment protocols for malaria and TB, or on how to deal with emergencies and epidemics.
- *Policy* – There are no official policy guidelines for treating malaria.
- *Costs of TB control* – The expansion of DOTS is hampered by poor infrastructure and weak local capacity, which increase operational costs, especially for transport.
- *Delays* – Partly because many areas are difficult to reach there are often delays in reporting outbreaks.

## Supporting environment and policies

The Secretariat of Health supervises the health system and guides partner agencies working in the health sector. However, it is reliant on the support of UN and humanitarian agencies for most health services. Thus although UNICEF and WHO do not, for the most part, implement programmes, they do act as the lead agencies for HIV/AIDS, malaria and tuberculosis. The Carter Centre is the lead agency for guinea worm eradication and Médecins Sans Frontières-Holland for kala-azar in the southern sector of Operation Lifeline Sudan. WHO also heads the Early Warning Alert and Response Network, which identifies, confirms and responds to suspected outbreaks.

## Key strategic interventions and recommendations

### Tuberculosis

- *Reporting methodology* – Training health workers on the reporting methodology for TB case finding and the outcome of treatment, and supervision.
- *Local authorities* – Strengthening the managerial and technical capacities of local authorities to promote the sustainability of DOTS.
- *Health providers* – Training health providers along WHO guidelines as part of the expansion or improvement of DOTS activities.
- *Reporting system* – Establishing a standard reporting system as a first step towards establishing the epidemiology of TB.

## **Malaria**

- *Training for health providers* – Expanded training for community-level health providers, to include identification of malaria cases and proper home-based treatment.
- *Supplies* – Provision of adequate supplies and drugs.
- *Education* – Community health education on the need to early treatment and on home-based care practices.
- *Prevention* – Informing health providers, community leaders and pregnant women about the use of LLITNS and the benefits of IPT.
- *Antenatal care* – Offering IPT and culturally acceptable LLITNS as a package for women visiting antenatal clinics.

## **Other major diseases**

- *Detection* – Training health workers on early detection and timely reporting of disease outbreaks to facilitate rapid response.
- *Surveillance* – Develop centralized surveillance and control system for kala azar, guinea worm, yellow fever, schistosomiasis, leprosy, sleeping sickness and onchocerciasis.

## **Monitoring and evaluation environment**

Data collection on the epidemiology of malaria, TB and other major diseases is inconsistent and not standardized. A useful starting point for the methodology for monitoring key indicators would be the Health Information System currently managed by UNICEF.

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Fair              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## GOAL 7: Ensure environmental sustainability

**Target 9:** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

### Environmental sustainability – status and trends

There are no accurate estimates for the area covered by forests. Moreover, forest reserves have not been defined, gazetted or classified in terms of ownership. With the advent of peace, it is envisaged that there will be increased settlement around urban areas. In order to curb excessive tree cutting for construction, plans are underway to encourage construction of semi-permanent, and eventually permanent, dwellings in peri-urban areas.

Paradoxically, the civil war helped to improve biological diversity since many people could not engage in their usual activities and became more reliant on organic farming. However, there seems to have been a loss of wildlife as a result of insecurity and a massive increase in hunting. Since the period prior to the war, the numbers of white-eared kob have fallen by 55% and of elephants by 80%<sup>159</sup>. Indiscriminate hunting practices have been curtailed in Boma National Park to protect animal species through the regulation of hunting seasons. The entire population of South Sudan use solid fuels.<sup>160</sup>XXXXX

### Challenges

The challenges for natural resource management are primarily institutional – caused by weak technical capacity and the lack of a coherent policy. They include:

- *Regulations* – The lack of regulatory measures.
- *Enforcement* – Inadequate capacity, both human and financial, to enforce regulatory measures.
- *Community involvement* – Communities are not involved in decision-making on the sharing of benefits and responsibilities of natural resources.
- *Data* – Lack of comprehensive data on the resource base to enable it to be gazetted then better managed and planned for.

### Supporting environment and policies

The Secretariat of Agricultural and Animal Resources, which is responsible for the Forestry Department, has yet to develop policy guidelines or legislation or ensure gazettement of forests. Nevertheless, the Secretariat's *Interim Policy Guidelines and Interventions* are designed to ensure conservation and management of all government and communal forests – aiming to achieve sustainable production of domestic and commercial products, while protecting the environment.<sup>161</sup> The guidelines also recognize the communal ownership of land, and the importance of community participation in the management of forest resources. They outline a number of key activities including: the definition and gazettement of forest reserves; afforestation and reforestation; best practices in farm forestry and harvesting of forest products; and promoting bio-diversity in a coordinated way through collaboration across different sectors such as forestry, wildlife, fisheries and agriculture.

### Key strategic Interventions and recommendations

- *Legal framework* – Developing a legal and institutional framework to conserve and manage forest and wildlife resources.
- *Poverty links* – Ensuring adequate representation of bio-diversity and environmental issues in the Poverty Reduction Strategy Paper.

- *Conservation programmes* – Adopting pro-poor, gender-sensitive natural resource conservation programmes that can ensure sustainability of livelihoods and better management of ecosystems.
- *Advocacy* – Making the case for capacity building and funding support. This will be needed to develop skills, for example, and establish a natural resource database. It will also be needed to protect forest reserves – allowing them to be surveyed, defined, and gazetted.
- *Community participation* – Starting community education and dialogue on sustainable management of natural resources.
- *Partnerships* – Develop partnerships, and strengthen linkages, between relevant sectoral institutions regionally and internationally.

## Monitoring and evaluation environment

|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Weak              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

## Access to improved drinking water – status and trends

**Target 10:** Halve, by 2015, the proportion of the population without sustainable access to safe drinking water

**Target 11:** By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

Table 24 – Indicators for water and sanitation, South Sudan, 2000

|                                        |    |
|----------------------------------------|----|
| Access to an improved water source (%) | 27 |
| Use of safe water source (%)           | 21 |
| Access to improved sanitation (%)      | 15 |

Source: SSCSE, 2004a, UNICEF, 2004

Although South Sudan has vast amounts of surface and ground water, 70% of the population do not have access to safe water and 85% have no sanitation facilities<sup>162</sup>. Many communities use unsafe water during the rainy season and travel long distances when surface water dries up in the dry season. If they had access to safe water, and adopted good hygiene and sanitation practices they would be less likely to fall victim to endemic diseases, including diarrhoea, guinea worm and trachoma.

*Diarrhoea* – This was responsible for 13% of morbidity in 2002<sup>163</sup>. The 2000 Multiple Indicator Cluster Survey found that 45% of children had diarrhoea in the two weeks prior to the survey<sup>164</sup>.

*Guinea worm* – This is a parasitic disease contracted by drinking contaminated water. In 2002, Sudan accounted for 80% of the world's cases, most of them in the south.<sup>165</sup> Eradicating guinea worm will require safe drinking water, along with the distribution of filter cloths, pipes and medical kits, as well as a programme of health education.

*Trachoma* – This chronic eye infection is one of the leading causes of preventable blindness. It is spread by poor hygiene in communities that have inadequate water supplies and limited sanitation facilities.



Surveys in selected locations in Upper Nile and Equatoria, for example, have found the entire population to be at risk<sup>166</sup>. Another high-risk area is Bahr el Ghazal. The main control interventions include health education and mass treatment with antibiotics.

### **Access to an improved water source**

Increasing access to clean water sources will require both better maintenance of existing sources and the creation of new water points. Maintenance involves repairing pumps, reconstructing platforms and rehabilitating water points destroyed or damaged during the conflict. Constructing new water points is particularly beneficial to women and girls who are the major water users since this reduces distances they have to travel, especially in the dry season, thereby freeing their time for other productive activities. Although a number of new sources have been created, they are not distributed very equitably – a consequence of poor infrastructure and unfavourable geology. Efforts have also been made to construct water points near schools and health centres because they need an adequate water supply to function effectively.

The water sector has also responded to emergencies by providing safe water points for internally displaced persons. This not only prevents outbreaks of water-related epidemics but also helps defuse potential conflicts with host populations over available resources.

### **Access to improved sanitation**

A number of agencies have been working to provide sanitation, usually integrating this with other activities. In its community centres UNICEF, for example, has an integrated approach to proper sanitation that combines hand-washing facilities, latrines, protected water points, and hygiene education. Save the Children-UK has constructed pit latrines in the schools it supports. Similarly, WFP, which runs emergency school-feeding programme, requires adequate pit latrines and clean water sources before providing food aid.

An important part of all water and sanitation activities is hygiene education. Hygiene promotion messages are incorporated with each new water point and UNICEF and the Secretariat of Education also include health and hygiene in the life-skills curriculum they have developed for adolescents. There are also plans to integrate life skills into the primary school curriculum. Nevertheless, despite concerted efforts to create awareness, many communities have been slow to adopt good hygiene and sanitation practices.

### **Challenges**

Inadequate access to safe water and poor hygiene and sanitation practices are hampering efforts to prevent or control diseases. Key challenges are:

- *Integration* – Integrating and co-ordinating the water sector's activities with other programmes like health, education and food security.
- *Transport* – Rehabilitating water points is constrained by poor roads and lack of transport for mechanics.
- *Unfavourable geology* – Low water tables, salty groundwater and the presence of ironstone hinder the construction of water points.
- *Returnees* – People returning to areas previously affected by conflict will add to the pressure on water sources. The Sudan Relief and Rehabilitation Commission recommended a ratio of water points to people of 1:1,000 and the Sphere Project recommend 1:250<sup>167</sup>. In assessed areas of South Sudan the ratio is 1:2,506 and with the return of IDP and refugee populations this will change to 1:2,999<sup>168</sup>.
- *Women's participation* – Increasing the levels of participation of women in the planning and positioning of water points at community level.

- *Low awareness* – Low hygiene and sanitation awareness and poor practices. Latrine use is minimal: 90% of households in Bahr el Ghazal, Lakes and Upper Nile do not use latrines.<sup>169</sup>

#### **Institutional constraints include:**

- *Legal framework* – Lack of a legal framework to govern the roles of stakeholders in the management of the water and sanitation sector.
- *Lack of resources* – The Secretariat has to take the lead role for making the transition from emergency to development but has insufficient resources for this task.
- *Enforcement* - The lack of financial and human resources hamper enforcement – enforcing regulatory measures in water programmes.
- *Sustainability* – Ensuring sustainability and community ownership of water points, especially in terms of maintenance and operation.
- *Research and training* – There are no local research or training institutions specializing in water and environmental sanitation.
- *Data collection and monitoring* – Inadequate capacity to set up and manage a database, to carry out mapping surveys or to monitor activities

#### **Supporting environment and policies**

The Secretariat of Rural Development and Cooperatives has prepared a draft policy document that provides the framework for addressing water and sanitation.<sup>170</sup> This covers a wide range of issues, including: participatory planning and the implementation of water projects with communities, private sector, CBOs and NGOs; coordinating the development of low-cost sustainable water supplies; protecting water catchments and promoting rainwater harvesting and storage; and promoting user ownership and gender-oriented management of community water projects. Underpinning all of this is the development of a minimum set of standards for water and sanitation services.

Most water programmes are currently being managed by humanitarian agencies, which also provide technical, material and capacity-building support.

#### **Key strategic interventions and recommendations**

- *Policy framework* – Finalizing and approving the Secretariat’s policy framework to enable it to take the lead role in streamlining the sector in terms of quality control and coordination.
- *Information sharing* – Capacity building and networking with regional and international institutions for information sharing and technical expertise in program development.
- *Transition activities* – Sustained budgetary support for capacity building to address staffing and operational needs during planned transition activities.
- *Community ownership* – Closer collaboration with agencies in the water and sanitation sector to ensure that programmes are driven by needs and foster community ownership.
- *Data collection* – Making field personnel take responsibility for basic data collection so as to improve monitoring and evaluation.
- *Decontamination* – Introducing chlorine to decontaminate water in areas where drilling is not possible due unfavourable geological conditions.
- *Women’s participation* – Increasing women’s participation in the planning and management of community water sources.
- *Education* – Encouraging collaboration between the education and health Secretariats in hygiene and sanitation education.

## Monitoring and evaluation environment

The UNICEF Water and Sanitation (WES) Database was established in 1998 to assist in the implementation and operation of water projects, and in planning interventions. It details the location and condition of each water point, the type of equipment on site and hydro ecological information. While the WES database is extremely useful, lack of access to some locations or reporting persons mean that it does not fully differentiate operational and non-operational water points. There is a need for closer collaboration with the Secretariat to develop a network of personnel and standardised methodology to collect data on selected water and sanitation indicators to effectively monitor and measure progress in access to these services and progress to the attainment of MDG 7.

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|                                                                                                      | <i>Assessment</i> |
|------------------------------------------------------------------------------------------------------|-------------------|
| Data-gathering capacities                                                                            | Weak              |
| Statistical tracking capacities                                                                      | Weak              |
| Statistical analytical capacities                                                                    | Fair              |
| Capacity to incorporate statistical analysis into policy planning and resource allocation mechanisms | Weak              |
| Monitoring and evaluation mechanisms                                                                 | Weak              |

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## GOAL 8: Develop a global partnership for development

**Target 12:** Develop further an open, rule-based, predictable, non-discriminatory trading and financial system

**Target 13:** Address the special needs of the least developed countries

### Global Partnership – status and trends

Conflict has had a catastrophic impact on South Sudan, leading to the almost total absence of social service infrastructure, the attendant deterioration of human development outcomes, weak institutional capacity and the depletion of human resources. As the joint note on the Poverty Eradication Strategy emphasizes, progress towards the MDGs will demand broad-based economic growth, especially in rural areas, combined with improved access to social services. For the first two years of the interim period there are number of strategic objectives: consolidating the peace; widening access to basic services; expanding income-earning opportunities and improving governance, especially in terms of institutional capacity and public accountability.

Thus far, most aid flows to South Sudan have been in the form of humanitarian assistance with a focus on saving lives and meeting urgent needs rather than on financing development and reconstruction. Now, however, there is an opportunity to promote sustainable growth and development since the promise of peace and stability should lead to an increase in donor flows. These funds can also be complemented by oil revenue.

Successful reconstruction and development will, however, pivot on achieving a sustainable peace and avoiding further conflict – while ensuring the resettlement and reintegration of IDPs, refugees and former combatants. Here too, international support will be critical.

At the national level, promoting equity and development in the whole of Sudan will require reforms in intergovernmental fiscal arrangements. The emerging Government of South Sudan also has to manage a series of transitions, both in terms of governance and institutions as well as in reorienting from humanitarian assistance to reconstruction and development. It will also have to foster a policy environment and a system of financial management that will enable it to manage its own resources efficiently as well as attract external assistance. This will require building stronger technical and institutional capacity – another area that will benefit from assistance from donors and international development partners.

**Target 16:** In co-operation with developing countries, develop and implement strategies for decent and productive work for the youth.

**Target 17:** In co-operation with the private sector, make available the benefits of new technologies, especially information and communications.

It will be many years before South Sudan develops a significant formal economy. Most young people looking for work will therefore have to depend on finding jobs in the informal economy – though they will find this difficult, particularly if they lost the opportunity for education during the war and lack the skills necessary to compete in the job market.

Their problems will be compounded by the paucity of technical and vocational training centres. Most current initiatives in this area are within the education sector or are related to productive activities that are being encouraged by interventions in agriculture or credit.

Peace and stability should encourage the building of infrastructure, which will not only foster economic growth but also employ many people directly during construction. Peace will also encourage greater

investment from the private sector. However the Government can also maximize employment by increasing investment in education and vocational training, ensuring equal opportunities to boys and girls, and facilitating entrepreneurship by making it easier to start and run an enterprise.

In 2002, less than 0.1% of southern Sudanese were fixed line or mobile phone subscribers. This situation is unlikely to improve in the near future.

## Conclusion (to section B)

The statistics presented for each goal paint a grim picture of South Sudan's present status in the attainment of the MDGs. Decades of marginalization, insecurity and lack of access to basic social services have undermine livelihoods, increased levels of poverty, reduced opportunities and led to high rates of malnutrition.

Most children are being denied their rights to education. Although enrolment has increased in recent years, three-quarters of children still have no access to education. And the children who do go to school often face a poor learning environment. This has serious long-term implications since South Sudan could now be producing a generation of illiterate youth. Also of particular concern in education is the marginalization of girls and young women. This too has long-term implications since it reduces women's opportunities for participation at all levels of government – despite official proclamations of aiming for 25% representation. The people of South Sudan face a considerable challenge in empowering their women.

Health standards too are very low: one child in four dies before the age of five, and the lifetime risk of a woman dying in pregnancy or childbirth is one in nine. This is an outcome not just of poverty and insecurity but also of inadequate health services: there is only one doctor for every 100,000 people, primary health facilities lack drugs and equipment and there is virtually no obstetric emergency care. These problems are compounded by the fact that less than one-third of the population have access to safe water and prevailing poor hygiene and sanitation practices.

The report also shows that most of the SPLM's secretariats have institutional weaknesses, especially for programming and monitoring. Most basic services have been delivered by UN and humanitarian agencies and while there has also been some capacity building this has not yet been sufficient for the secretariats to take over. They do have a vision for each sector, as articulated in their policy documents, but as yet they do not have the human or financial resources for implementation. Nor do they have sufficient capacity for monitoring the indicators needed to track progress towards the MDGs.

The signature of the comprehensive peace agreement provides an opportunity to reduce levels of poverty and to reduce disparities in access to social services. Both the SPLM and the Government of Sudan are committed to a pro-poor development strategy – providing a strong platform for efforts to increase levels of human development and accelerate progress towards the MDGs. Translating these commitments into action, however, will depend on maintaining a secure environment as well as on securing support from the international community, civil society and the private sector.

## Annex A

### MDGs in the Northern Sudan – Status at a Glance

| Goal                                           | Target                                                                       | Indicators                                                   | Current Rate | Reference Year for current rate | Target For 2015 | Will development goal be achieved (probably, potentially, unlikely, lack of data) | State of supportive environment (strong, fair, weak but improving, weak) | Monitoring capacity (strong, good, fair, weak) |
|------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------|--------------|---------------------------------|-----------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------|
| <b>1. Eradicate extreme poverty and hunger</b> | - Reduce by half the proportion of people living on less than a dollar a day | - The proportion of the population below \$1 per day         | NA           | NA                              |                 | NA                                                                                | Weak                                                                     | Weak                                           |
|                                                | - Reduce by half the proportion of people who suffer from hunger             | - Prevalence of child malnutrition (underweight of under-5s) | 18           | 2000                            | 9%              | Potentially                                                                       | Fair                                                                     | Weak                                           |
|                                                |                                                                              | - Proportion population undernourished                       | 26           | 200                             | 12.5            | Potentially                                                                       | Fair                                                                     | Weak                                           |
| <b>2. Achieve universal primary education</b>  | Ensure that all boys and girls complete a full course of primary schooling   | Net Enrolment in primary education-boys, girls,              | NA           | NA                              | NA              | NA                                                                                | Weak but improving                                                       | Weak                                           |
|                                                |                                                                              | Gross Enrolment Rate                                         | 59.6         | 2000                            | 100%            | Potentially                                                                       | Weak                                                                     | Weak                                           |

|                                                     |                                                                                                                                             |                                                                         |        |      |       |                                            |      |      |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------|------|-------|--------------------------------------------|------|------|
|                                                     |                                                                                                                                             | Youth literacy Rates (ages15- 24)                                       | 78%    | 2003 | 100%  | unlikely                                   | weak | weak |
| <b>3. Promote gender equality and empower women</b> | Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015<br><br><br><br>To empower women | Ratio of girls to boys in primary education                             | 88:100 |      |       |                                            |      |      |
|                                                     |                                                                                                                                             | Literacy rate of females age 10+ year olds.                             | 49.2%  | 2003 | 100%  | Unlikely                                   | Fair | Weak |
|                                                     |                                                                                                                                             | Women participation in the labour force (Census1993 & fMoLAR 1996)      | 26%    | 1996 |       |                                            | Fair | Weak |
|                                                     |                                                                                                                                             | Proportion of seats held by women in National parliaments as % of total | 10%    | 2003 |       |                                            | Fair | Weak |
| <b>4. Reduce child mortality</b>                    | Reduce by two thirds the mortality rate among children under five                                                                           | Under five mortality rate (per 1,000 live births)                       | 104    | 1999 | 80/90 | Likely<br><br>(GoS defined target/MDGs 40) | Fair | Weak |
|                                                     |                                                                                                                                             | Infant mortality rate (per 1,000 live births)                           | 68     | 1999 | 22    | Potentially                                | Fair | Weak |



|                                                       |                                                                             |                                                            |        |      |                                                             |             |                    |      |
|-------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------|--------|------|-------------------------------------------------------------|-------------|--------------------|------|
| <b>5. Improve maternal health</b>                     | Reduce by three quarters the maternal mortality ratio                       | Maternal mortality ratio (per 100,000)                     | 509    | 1999 | 250<br>(GoS defined a 50% reduction to 250/MDGs target 140) | Likely      | Fair               | Weak |
|                                                       |                                                                             | Proportion births attended by skilled health personnel (%) | 57     | 2004 |                                                             |             |                    |      |
| <b>6. Combat HIV/AIDS, malaria and other diseases</b> | Halt and begin to reverse the spread of HIV/AIDS                            | HIV prevalence rate (in the general adult population)      | >1.6 % |      | >2%<br>(Between 2003-08)                                    | Potentially | Weak but improving | Weak |
|                                                       |                                                                             | Contraceptive prevalence (women age 15-49) (%)             | 7      | 2004 |                                                             |             |                    |      |
|                                                       | Halt and begin to reverse the incidence of malaria and other major diseases | Malaria-related deaths (per 10,000)                        | 11     | 2000 | Reduce 40% from current rate (by 2007)                      | Potentially | Weak but improving | Weak |
|                                                       |                                                                             | Prevalence of malaria (per 100,000)                        | 13,934 | 2000 |                                                             |             |                    |      |

|                                                        |                                                                                                                                     |                                                                                       |      |      |              |             |                    |      |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|------|--------------|-------------|--------------------|------|
|                                                        |                                                                                                                                     | Prevalence rates associated with tuberculosis (per 100,000)                           | 90   | 2002 | 45 (by 2010) | Potentially | Weak but improving | Weak |
|                                                        |                                                                                                                                     | TB-related mortality (per 100,000)                                                    | 60   |      |              |             |                    |      |
|                                                        |                                                                                                                                     |                                                                                       |      | 2002 |              | Potentially | Fair               | Fair |
|                                                        |                                                                                                                                     | Proportion of TB cases detected under directly observed treatment short course (DOTS) | 53%  | 2002 |              | Potentially | Fair               | Fair |
| <b>7. Ensure environmental sustainability</b>          | Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources   | Proportion of land area covered by forest (%)                                         | 20   | 1995 | 25%          | Potentially |                    | Fair |
|                                                        | Reduce by half the proportion of people without sustainable access to safe drinking water                                           | Proportion of population with sustainable access to an improved water source          | 70%  | 2003 |              | Probably    |                    | Good |
|                                                        | Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020                                             | Proportion of population with sustainable access to improved sanitation               | 64%  | 2003 |              | Potentially |                    | Fair |
| <b>8. Develop a global partnership for development</b> | In co-operation with the private sector, make available the benefits of new technologies, especially information and communications | Fixed lines and mobile telephone lines per 1000 persons                               | 46.6 | 2003 |              | Potentially |                    |      |

## Annex B

### MDGs in Southern Sudan (SPLM-Controlled Areas) - Status at a Glance

| Goal                                           | Target                                                                     | Indicators                                                    | Current Achievement* | Year of achievement | Target For 2015 | Will development goal be achieved (probably, potentially, unlikely, lack of data) | State of supportive environment (strong, fair, weak but improving, weak) | Monitoring capacity (strong, fair, weak) |
|------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------|----------------------|---------------------|-----------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------|
| <b>1. Eradicate extreme poverty and hunger</b> | Reduce by half the proportion of people living on less than a dollar a day | The proportion of the population below \$1 per day            | >90%                 | 2003                | 45%             | Unlikely                                                                          | Weak                                                                     | Weak                                     |
|                                                | Reduce by half the proportion of people who suffer from hunger             | Prevalence of child malnutrition (weight /age)% of under five | 48%                  | 1995-2001           | 24%             | Potentially                                                                       | Weak but improving                                                       | Fair                                     |
|                                                |                                                                            | Proportion of population facing food deficit                  | 23%                  | 2003                | 11%             | Potentially                                                                       | Weak                                                                     | Fair                                     |
| <b>2. Achieve universal primary education</b>  | Ensure that all boys and girls complete a full course of primary schooling | Net Enrolment in primary education-boys, girls,               | 20%                  | 2000                | 100%            | Unlikely                                                                          | Weak but improving                                                       | Fair                                     |
|                                                |                                                                            | Gross enrolment rate                                          | 23%                  | 2000                | 100%            | Potentially                                                                       | Weak but improving                                                       | Fair                                     |
|                                                |                                                                            | % of cohort reaching G5                                       | 28%                  | 2000                |                 |                                                                                   |                                                                          |                                          |

|                                                     |                                                                                                             |                                                                                |             |      |      |             |              |      |      |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------|------|------|-------------|--------------|------|------|
|                                                     |                                                                                                             | Primary Completion Rate                                                        | 2%          | 2000 |      |             |              | Weak |      |
|                                                     |                                                                                                             | Literacy Rates of 15-24 year olds                                              | 31%         | 2000 | 100% | Unlikely    | Weak         | Weak |      |
| <b>3. Promote gender equality and empower women</b> | Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015 | Ratio of girls to boys in primary, secondary and tertiary education            | 40%-primary | 2003 | 100% | Unlikely    | Weak         | Fair |      |
|                                                     |                                                                                                             | Ratio of literate females to males among 15-24 year olds                       | 35%         | 2000 | 100% | Unlikely    | Weak         | Weak |      |
|                                                     |                                                                                                             | Share of women in wage employment in the non-agricultural sector.              |             |      |      |             | Lack of data | Weak | Weak |
|                                                     |                                                                                                             | Proportion of seats held by women in SPLM Leadership Council (Out of 15 seats) | 0           | 2004 | 50%  | Unlikely    | Weak         | Fair |      |
|                                                     |                                                                                                             | Percent of seats held by women in National Liberation Council (15 out of 83)   | 18%         | 2004 | 50%  | Potentially | Weak         | Fair |      |
|                                                     | To empower women                                                                                            |                                                                                |             |      |      |             |              |      |      |

|                                                       |                                                                   |                                                                                      |      |      |     |             |                    |      |
|-------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|------|-----|-------------|--------------------|------|
|                                                       |                                                                   | Percent of seats held by women in National Executive Body (1 out of 21 Secretariats) | 5%   | 2004 | 50% | Unlikely    | Weak               | Fair |
|                                                       |                                                                   | Proportion of women holding position of County Secretary (1 out of 50)               | 2%   | 2004 | 50% | Unlikely    | Weak               | Fair |
| <b>4. Reduce child mortality</b>                      | Reduce by two thirds the mortality rate among children under five | Under five mortality rate                                                            | 250  | 2001 | 83  | Unlikely    | Weak               | Weak |
|                                                       |                                                                   | Infant mortality rate                                                                | 150  | 2000 | 50  | Unlikely    | Weak               | Weak |
|                                                       |                                                                   | Proportion of one-year old children immunised against measles                        | 12%  | 2003 |     | Potentially | Weak but improving | Fair |
| <b>5. Improve maternal health</b>                     | Reduce by three quarters the maternal mortality ratio             | Maternal mortality ratio                                                             | 1700 | 2000 | 425 | Unlikely    | Weak               | Weak |
|                                                       |                                                                   | Proportion of births attended by skilled health personnel                            | 5%   | 2000 | 90% | Unlikely    | Weak               | Weak |
| <b>6. Combat HIV/AIDS, malaria and other diseases</b> | Halt and begin to reverse the spread of HIV/AIDS                  | HIV prevalence rate                                                                  | 2.6% | 2003 |     |             | Weak               | Weak |
|                                                       |                                                                   | Contraceptive prevalence rate                                                        | <1%  | 2000 |     | Unlikely    | Weak               | Weak |

|             |                                                                             |                                                                                                          |                                                                                             |                            |                        |                                                                                          |                                                                                 |                                                 |
|-------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------|------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------|
|             |                                                                             | Number of children orphaned by HIV/AIDS                                                                  |                                                                                             |                            |                        | Lack of data                                                                             | Weak                                                                            | Weak                                            |
|             | Halt and begin to reverse the incidence of malaria and other major diseases | Prevalence and death rates associated with malaria                                                       |                                                                                             |                            |                        |                                                                                          | Weak                                                                            | Weak                                            |
|             |                                                                             | Proportion of population in malaria risk areas using effective malaria prevention and treatment measures | 36% (%of <5s sleeping under a bed net)<br><br>36% (%febrile<5s treated with anti-malarials) | 2000                       |                        | Lack of data                                                                             | Weak                                                                            | Weak                                            |
|             |                                                                             |                                                                                                          |                                                                                             | 2000                       |                        | Lack of data                                                                             | Weak                                                                            | Weak                                            |
|             |                                                                             | Prevalence rates associated with tuberculosis (per 100,000)                                              | 325                                                                                         | 2002                       |                        | Lack of data                                                                             | Weak                                                                            | Weak                                            |
|             |                                                                             | Proportion of TB cases detected and cured under directly observed treatment short course (DOTS)          | 6%                                                                                          | 2002                       |                        | Lack of data                                                                             | Weak                                                                            | Weak                                            |
| <b>Goal</b> | <b>Target</b>                                                               | <b>Indicators</b>                                                                                        | <b>Current Achievement*</b>                                                                 | <b>Year of achievement</b> | <b>Target For 2015</b> | <b>Will development goal be achieved (probably, potentially, unlikely, lack of data)</b> | <b>State of supportive environment (strong, fair, weak but improving, weak)</b> | <b>Monitoring capacity (strong, fair, weak)</b> |

|                                                        |                                                                                                                                     |                                                                              |     |      |     |              |      |      |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----|------|-----|--------------|------|------|
| <b>7. Ensure environmental sustainability</b>          | Integrate the principles of sustainable development into country policies and programs; reverse loss of environmental resources     | Proportion of land area covered by forest                                    |     |      |     | Lack of data | Weak | Weak |
|                                                        | Reduce by half the proportion of people without sustainable access to safe drinking water                                           | Proportion of population with sustainable access to an improved water source | 27% | 2000 | 64% | Unlikely     | Weak | Weak |
|                                                        | Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020                                             | Proportion of population with sustainable access to improved sanitation      | 15% | 2000 | 58% | Unlikely     |      | Weak |
| <b>8. Develop a global partnership for development</b> | In co-operation with the private sector, make available the benefits of new technologies, especially information and communications | Telephone lines and cellular subscribers per 100 population                  | <1% | 2003 |     | Unlikely     | Weak | Weak |

## Bibliography

- AAH, 2002. *Nutritional Survey, Old Fangak*. Action Against Hunger-USA
- Ahfad University, 2004. *Situation Analysis on MDG 3: the Promotion of Gender Equality and Empowerment of Women*, Sudan, September 2004 - A study by Ahfad University for Women in consultation with FMOWSD and WFP.
- BOS, 2003. Bank of Sudan Annual Reports
- CBS, 1990. *Demographic and Health Survey*. Central Bureau of Statistics
- CBS, 1992. *Sudan Household Survey*. Central Bureau of Statistics
- CBS, 1993. National Census
- CBS, 1999. *Demographic and Health Survey*. Central Bureau of Statistics
- CBS/UNFPA, 1999. *Safe Motherhood Survey*, Central Bureau of Statistics and United Nations Population Fund.
- CBS/UNFPA, 2003. *Population Data Sheet 2003*
- Deng, L., 1999. *Famine in Sudan: Causes, Preparedness and Response: A political, social and economic analysis of the 1998 Bahr el Ghazal Famine*, IDS Discussion Paper 369, Brighton: Institute of Development Studies.
- Deng, L., 2002, *The Impact of Civil War on Food Security and Wildlife in Southern Sudan*, Paper prepared for the World Bank and USAID.
- Deng, L., 2003. *Education in Southern Sudan: War, Status and challenges of achieving Education for All Goals*. Paper prepared for UNESCO EFA Monitoring Report.
- Deng, L., 2004. *Violence, Conflict and Poverty: The Challenge of Development in Post-conflict Southern Sudan*, London, Sudan Research Group
- DFID, 2003. *Key Sheets for Sustainable Livelihoods*, Department For International Development, UK.
- FAO, 2003. *The State of Food Insecurity in the World*, FAO, Rome, 2003.
- FAO, 2004. *Sudan – Poverty Reduction and Programs in Agriculture, 2004*. Report Prepared for the FAO Office in Khartoum by Abdelrazeg, Elbashir Fatih Ali Siddig, Abdelatif Ijaimi, and Hassan M. Nour, March, 2004
- FAO/GIEWS, 2004. *Global Information and Early Warning System on Food and Agriculture*. Africa Report.
- Fitzgerald, M, 2002, *Throwing the Stick Forward: The Impact of War on South Sudanese Women*. Operation Lifeline Sudan
- FMOE, 2002. *Annual Educational Statistical Report, 2001/2002*
- FMOH, 2003. *Progress in Achieving the Millennium Development Goals – Health, Nutrition & Population, July 2003*; prepared by Dr. Muhammad Bashirul Haq, consultant UNICEF.
- FMOM, 1996. *Migration and Labour Force Survey*. Ministry of Manpower
- GOS, 2002. *National Comprehensive Strategy (1992-2002)*
- ICG. 2002. *God, Oil and Country: Changing the Logic of War in Sudan*, International Crisis Group.
- JAM, 2004. *A National Poverty Eradication Strategy Concept Note*, Sudan, Joint Assessment Mission. Available at [www.unsudanig.org/JAM](http://www.unsudanig.org/JAM)
- MICS, 2000. *Multiple Indicator Cluster Survey*. Government of Sudan and UNICEF.
- MOF, 2002. *Annual Budgetary and Financial Report*, Ministry of Finance,
- MRDC, 2003. *Policy Document 2003/04*. Ministry of Rural Development and Cooperatives, Government of New Sudan
- NSCSE, 2004a. *Towards A Baseline: Best Estimates of Social Indicators for Southern Sudan*. New Sudan Centre for Statistics and Evaluation
- NSCSE, 2004b, *Making Unity Attractive: The Challenge of Poverty and Sustainable Peace in South Sudan*, New Sudan Centre for Statistics and Evaluation
- NPC, 2002. *Sudan National Population Policy*, National Population Council, Khartoum.
- PRIME, 1998. “Safe Motherhood: Successes and Challenge”, *Outlook*, Volume 16, Special Issue, 1998, University of North Carolina at Chapel Hill, PRIME Project.
- Richer, M. 2002. *Overview of the Health Situation in Southern Sudan*. UNICEF/OLS
- Richer, M. 2003, *Southern Sudan Situation Analysis on Malaria*. UNICEF.
- RBM, 2004. Roll Back Malaria partnership.



SAAR, 2003, *Draft Food Security Strategy for Reconstruction and Development of the New Sudan*, Secretariat for Agriculture and Animal Resources

SAAR, 2003b. *Interim Policy Guidelines and Interventions*, Secretariat of Agricultural and Animal Resources.

SOE, 2004. *The Education Sector Plan of the New Sudan: Pre-Interim Period and January 2005–December 2010*.

Sphere, 2000. *Humanitarian Charter and Minimum Standards in Disaster Response*, the Sphere Project.

SPLM, 1999. *Health Policy of the New Sudan*

SPLM, 2002. *Proposal to the Global Fund Global Fund for AIDS, TB, Malaria*

SPLM/ USAID, 2004. *Baseline Study on the Status of Women in the New Sudan: Report for Mundri and Yei Counties, Western Equatoria*, Southern Sudan Natural Resource Management and Utilization Committee and USAID, 2004.

SWGWCW, 2004. *Draft Operational Plan, 2004/2005*, Secretariat for Women, Gender and Child Welfare

SWGU, 2003. Sudanese Women’s General Union.

UNAIDS/WHO, 2002. *Sudan Epidemiological Fact Sheets*, 2002 update.

UNDP, 2003. *Human Development Report*.

UNESCO/UNDP, 2001. *Basic Education Sub-sector Study Final Report, 2000-2001*

UNFPA, 2003. *A Glance at the Status of Women in Sudan: Focus on Reproductive Health*, July 2003, UNFPA Country Office Sudan.

UNICEF, 2000. *Progress of Regions: Multiple Indicator Cluster Survey Results in the Southern Part of Sudan*

UNICEF, 2001. *Education for All: Assessment Report, South Sudan*.

UNICEF, 2001b. *Knowing the Pen: An Analysis of Girls’ Education in southern Sudan*.

UNICEF, 2003. *Millennium Development Goals for Southern Sudan, Education Sector Analytical Report*

UNICEF, 2004. *Summary paper on Situation of Primary Education in Sudan*, Global Week of Action on EFA, 24 April 04

UNICEF/AET, 2003. *School Baseline Assessment Report for South Sudan*. UNICEF and Africa Educational Trust.

UNOCHA, 2004. *STARBASE Statistical Tables*

WFP, 2004. *Sudan Annual Needs Assessment 2003/2004*, World Food Programme.

WHO, 2002. *Annual TB Report*. WHO, Geneva

WHO, 2003. *South Sudan Health Update*, August 2003. World Health Organization

WHO, 2003b. Presentation at Southern Sector Health coordination meeting, October 2003.

World Bank, 2003a. *Sudan: Growth, Development, Outcomes and Pro-Poor Reforms*, World Bank, April 2003.

World Bank, 2003b. *Sudan Health Status Report*

World Bank, 2003c. *Achieving Universal Primary Education by 2015 - A Chance for Every Child*. Washington, World Bank.

Zakat Chamber, 2003. Annual Report of Zakat Chamber

# Annex C – Presidential Decree

(Unofficial translation)

Republic of the Sudan

COUNCIL OF MINISTERS

Secretariat General

16 June 2004

## Resolutions of the Council of Ministers

Resolution Number (281) for 2004

- a) The Establishment of the Ministerial Committee supervising the preparation of the Sudan's report on the status of the implementation of the Millennium Development Goals, 2004 and;
- b) The Higher Technical Committee for the preparation of the national Millennium Development Goals Report.

### Council of Ministers

Having considered article 43 (b) of the Constitution of the Republic of The Sudan for 1998, and the powers delegated in accordance with resolution No. (157) for 1996 and in the light of the need to follow up and monitor the status of the implementation of the Millennium Development Goals in partnership with The United Nations Development Programme and to promote Sudan's efforts to prepare its national report for the current year, I issue the following decree :-

*First: The Establishment of a Ministerial Committee*

(1) The ministerial committee supervising the preparation of the Sudan's report on the status of progress in the implementation of the Millennium Development Goals for 2004, is to be formed as follows:

*(a) The body of the committee:*

- |                                                        |                       |
|--------------------------------------------------------|-----------------------|
| 1) Mr. Assistant President                             | Chairman              |
| 2) Mr. Minister of International Cooperation           | Member and rapporteur |
| 3) Mr. Minister of Finance and National Economy        | Member                |
| 4) Mr. Minister of Health                              | Member                |
| 5) Mr. Minister of Education                           | Member                |
| 6) Mr. Minister of Humanitarian Affairs                | Member                |
| 7) Mr. Minister of Welfare and Social Development      | Member                |
| 8) Mr. Yehia Hussien, State Minister at the Presidency | Member                |
| 9) Mr. Secretary General- Strategic Planning Council   | Member                |

*(b) Terms of reference:-*

- 1) Formulating general guidelines and policies for preparing Sudan's technical report for 2004 on the progress of implementing the Millennium Development Goals all over the country.
- 2) General supervision of the work pertaining to the preparation of the report.
- 3) Coordinating efforts and promoting policies that are conducive to the realization of these goals.
- 4) The committee is entitled to look into any documents relating to the subject and to seek the assistance of any one who is able to help it perform its function.
- 5) Any other instructions or assignments from the president.

*(c) Venue and Secretariat of the Committee:-*

The Ministry of International Cooperation is to serve as the venue for the meetings of the committee and to provide a secretariat.

*(d) The Committee's Report:-*

The committee holds monthly meetings and submits a periodical report on the progress of preparation of the report to the President of the Republic.

*Second: The Higher Technical Committee*

The Higher Technical Committee for the preparation of Sudan's National Report on the process of executing the Millennium Development Goals, is formed as follows:

*(a) The committee:-*

|                                                    |                 |
|----------------------------------------------------|-----------------|
| 1) Mr. Ambassador: Hassan Ibrahim Jad Kareem       | Chairman        |
| 2) Mr. Muawya El-Ahmar                             | Deputy Chairman |
| 3) Dr. Abdalla Elsheikh                            | Member          |
| 4) Mr. Sayed Mohammed Hamdany                      | Member          |
| 5) Mr. Ibrahim Sulaiman Eddeseis                   | Member          |
| 6) Ustaz Hussein Abdal Haleem                      | Member          |
| 7) Mr. Counselor Abdal Wahab Elhijazy              | Member          |
| 8) Ustazah Hanim Burhan Eddeen                     | Member          |
| 9) Dr. Esam Ahmed Abdalla                          | Member          |
| 10) Dr. Abdalateef Ejeimy                          | Member          |
| 11) Ustazah Habab Abdal Rahman                     | Member          |
| 12) Prof Taj Elsir Bashir                          | Member          |
| 13) Dr. Abdal Rahman Ahmed Abu Doum                | Member          |
| 14) Mr. Representative of the Union of Businessmen | Member          |
| 15) Mr. Omer Hamid Abdal Aty                       | Member          |
| 16) Dr. Abdal Rahman Mohammed Hassan               | Member          |
| 17) Ustazah Amal Abdalla                           | Member          |

*(b) The committee's terms of reference:-*

1. Coordinating and directing national efforts towards the realization of the Millennium Development Goals – nation wide –to insure the integration and coherence of sectors.
2. Preparing the Sudan Technical Report for 2004 on the process of implementing the Millennium Development Goals in Sudan before next September.
3. Coordinating with UNDP (Sudan) Representative on the means of supporting the committee's work plan for preparing the report.

4. The Ministry of International Cooperation, The Ministry of Finance and National Economy, UNDP and other Organizations are to work together to finance the implementation of the committee's work plan for the preparation of the report.
5. Any other assignments or instructions from the Ministerial Committee.

*(c) - Venue and secretariat of the committee:*

The Ministry of International Cooperation is to serve as the venue for the meetings of the committee and is to provide a secretariat for it.

*(d)- The committee's report:-*

-The Committee submits a periodic report to the Ministerial Committee.

-The Committee submits its final report to the Ministerial Committee no later than the first of September 2004.

### ***IMPLEMENTATION***

The Ministry of International Cooperation and other concerned bodies are to take the requisite measures for carrying out this resolution.

**Issued under my name and signature, on the 16<sup>th</sup> of June 2004.**

**Field Marshal Omer Hassan Ahmed Albasheer**

**President of the Republic**

## References

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- <sup>1</sup> JAM, 2004
- <sup>2</sup> FMOH, 2003.
- <sup>3</sup> MICS, 2000
- <sup>4</sup> World Bank, 2003a
- <sup>5</sup> FAO, 2004
- <sup>6</sup> CBS, 1992.
- <sup>7</sup> CBS/UNFPA, 1999
- <sup>8</sup> MICS, 2000
- <sup>9</sup> CBS, 2003
- <sup>10</sup> CBS, 2003
- <sup>11</sup> A total rate above 15% is considered a health problem that requires intervention.
- <sup>12</sup> Data refer to averages for 1990-1992; 1995-97; and 1999-2001.
- <sup>13</sup> FAO/GIEWS (2004)
- <sup>14</sup> Zakat Chamber Annual Report, 2003
- <sup>15</sup> BOS, 2003
- <sup>16</sup> MDG2 assessment prepared by UNICEF in collaboration with FMOE
- <sup>17</sup> Because of the lack of credible data on the net enrolment rate, this MDG assessment uses the gross enrolment rate. The net enrolment rate is sometimes estimated at 46% but the data source is not clear
- <sup>18</sup> Tentative results of processing 2004 GER data (FMOE)
- <sup>19</sup> FMOE, 2002
- <sup>20</sup> MOF, 2002
- <sup>21</sup> Expenditure on education is currently estimated at less than 1% of GDP
- <sup>22</sup> Ahfad University, 2004
- <sup>23</sup> CBS/UNFPA, 2003
- <sup>24</sup> CBS/UNFPA, 1999
- <sup>25</sup> CBS/UNFPA, 1999
- <sup>26</sup> CBS/UNFPA, 1999
- <sup>27</sup> FMOLAR, 1999
- <sup>28</sup> FMOLAR, 1999
- <sup>29</sup> FMOLAR, 1999
- <sup>30</sup> National Election Authority, 2000
- <sup>31</sup> CBS/UNFPA, 1999
- <sup>32</sup> UNICEF, 2004
- <sup>33</sup> FMOE, 2002
- <sup>34</sup> CBS/UNFPA, 2003
- <sup>35</sup> FMOLAR, 1996
- <sup>36</sup> FMOLAR, 1996, and HDR, 1999.
- <sup>37</sup> SWGU, 2003
- <sup>38</sup> CBS, 1999
- <sup>39</sup> CBS/UNFPA, 1999
- <sup>40</sup> CBS, 1999
- <sup>41</sup> CBS/UNFPA, 1999
- <sup>42</sup> FMOH, 2003
- <sup>43</sup> FMOH, 2003
- <sup>44</sup> FMOH, 2003
- <sup>45</sup> MICS, 2000
- <sup>46</sup> CBS, 1990
- <sup>47</sup> World Bank, 2003
- <sup>48</sup> CBS, 1990
- <sup>49</sup> CBS/UNFPA, 1999
- <sup>50</sup> UNFPA, 2003
- <sup>51</sup> WHO, 2002. *Annual TB Report*
- <sup>52</sup> GOS, 2002
- <sup>53</sup> UNESCO/UNDP, 2001
- <sup>54</sup> UNDP, 2003
- <sup>55</sup> NPC, 2002
- <sup>56</sup> NPC, 2002
- <sup>57</sup> Data provided by representative of MOLAR in MDGR Technical Committee
- <sup>58</sup> ICG, 2002
- <sup>59</sup> SSCSE, 2004a
- <sup>60</sup> SSCSE, 2004b
- <sup>61</sup> The calculation of the net enrolment ratio is based on various studies, and takes into account the fact that a substantial number of students are overage and that there are high drop-out rates.
- <sup>62</sup> SSCSE, 2004a
- <sup>63</sup> World Bank, 2003b
- <sup>64</sup> Deng, L., 2004
- <sup>65</sup> NSCSE, 2004b
- <sup>66</sup> MICS, 2000
- <sup>67</sup> WFP, 2004
- <sup>68</sup> SSCSE, 2004a
- <sup>69</sup> SSCSE, 2004a
- <sup>70</sup> AAH, 2002

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- <sup>71</sup> DFID, 2003
- <sup>72</sup> Deng, L. 1999
- <sup>73</sup> UNICEF, 2003
- <sup>74</sup> SAAR, 2003a
- <sup>75</sup> SAAR, 2003b
- <sup>76</sup> SSCSE, 2004a.
- <sup>77</sup> Percentage of cohort that entered grade 1 and were able to complete the primary cycle. South Sudan has an 8-year system.
- <sup>78</sup> UNICEF/AET, 2003
- <sup>79</sup> SSCSE, 2004a
- <sup>80</sup> UNICEF, 2001
- <sup>81</sup> UNICEF/AET, 2003
- <sup>82</sup> UNICEF, 2001b
- <sup>83</sup> UNICEF/AET. 2003
- <sup>84</sup> UNICEF/AET. 2003
- <sup>85</sup> Deng, L. 2003
- <sup>86</sup> UNICEF, 2000
- <sup>87</sup> AET/UNICEF, 2003
- <sup>88</sup> Fitzgerald, M., 2002
- <sup>89</sup> SOE, 2004,
- <sup>90</sup> UNICEF, 2003
- <sup>91</sup> World Bank, 2003c.
- <sup>92</sup> SSCSE, 2004a
- <sup>93</sup> SOE, 2004
- <sup>94</sup> UNICEF/AET 2003
- <sup>95</sup> SOE, 2004
- <sup>96</sup> SOE, 2004.
- <sup>97</sup> UNICEF, 2003
- <sup>98</sup> SOE, 2004
- <sup>99</sup> SOE, 2004
- <sup>100</sup> UNICEF, 2003
- <sup>101</sup> UNICEF, 2003
- <sup>102</sup> SOE, 2004
- <sup>103</sup> UNICEF, 2003
- <sup>104</sup> UNICEF/AET, 2003
- <sup>105</sup> SSCSE, 2004
- <sup>106</sup> UNICEF, 2003
- <sup>107</sup> UNICEF/AET, 2003
- <sup>108</sup> Fitzgerald, M., 2002
- <sup>109</sup> UNICEF, 2001b
- <sup>110</sup> Fitzgerald, M., 2002
- <sup>111</sup> SPLM /USAID, 2004
- <sup>112</sup> UNICEF/AET, 2003
- <sup>113</sup> SPLM /USAID, 2004
- <sup>114</sup> SPLM /USAID, 2004
- <sup>115</sup> SOE, 2004
- <sup>116</sup> SPLM /USAID, 2004
- <sup>117</sup> SOE, 2004
- <sup>118</sup> SWGCW, 2004
- <sup>119</sup> World Bank, 2003
- <sup>120</sup> SSCSE, 2004a.
- <sup>121</sup> MICS, 2000
- <sup>122</sup> SSCSE, 2004a
- <sup>123</sup> SSCSE, 2004a
- <sup>124</sup> WHO, 2003a.
- <sup>125</sup> SSCSE, 2004a.
- <sup>126</sup> MICS, 2000
- <sup>127</sup> FMOH, 2003
- <sup>128</sup> SSCSE, 2004a
- <sup>129</sup> SSCSE, 2004a
- <sup>130</sup> SSCSE, 2004a
- <sup>131</sup> World Bank 2003
- <sup>132</sup> SSCSE, 2004a
- <sup>133</sup> Richer, M., 2002
- <sup>134</sup> SSCSE, 2004a
- <sup>135</sup> World Bank, 2003
- <sup>136</sup> SPLM, 1999
- <sup>137</sup> Fitzgerald, M., 2002
- <sup>138</sup> Richer, M., 2002
- <sup>139</sup> SSCSE, 2004a
- <sup>140</sup> SSCSE, 2004a
- <sup>141</sup> Richer, M., 2002
- <sup>142</sup> SSCSE, 2004a
- <sup>143</sup> Richer, M., 2002
- <sup>144</sup> SSCSE, 2004a
- <sup>145</sup> Richer, M., 2002
- <sup>146</sup> SPLM, 1999
- <sup>147</sup> PRIME, 1998
- <sup>148</sup> SSCSE, 2004a
- <sup>149</sup> SSCSE, 2004a
- <sup>150</sup> SSCSE, 2004a

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- <sup>151</sup> UNAIDS/WHO, 2002
- <sup>152</sup> RBM, 2004
- <sup>153</sup> World Bank, 2003
- <sup>154</sup> SPLM, 2002
- <sup>155</sup> Richer, M., 2003
- <sup>156</sup> Richer, M., 2002.
- <sup>157</sup> Richer, M., 2002
- <sup>158</sup> WHO, 2003b
- <sup>159</sup> Deng, L., 2002
- <sup>160</sup> SSCSE, 2004a
- <sup>161</sup> SAAR, 2003b
- <sup>162</sup> SSCSE, 2004a
- <sup>163</sup> Richer, M., 2002
- <sup>164</sup> MICS, 2000
- <sup>165</sup> Richer, M., 2002
- <sup>166</sup> Richer, M., 2002
- <sup>167</sup> Sphere, 2000
- <sup>168</sup> UNOCHA, 2004
- <sup>169</sup> MICS, 2000
- <sup>170</sup> MRDC, 2003