ALL IN SCHOOL كلّنا في المدرسة

MIDDLE EAST AND NORTH AFRICA
OUT-OF-SCHOOL CHILDREN INITIATIVE

SUDAN MINISTRY OF EDUCATION

SUDAN

COUNTRY REPORT ON OUT-OF-SCHOOL CHILDREN

OCTOBER 2014

unite for children

unicef

ALL IN SCHOOL كلّنا في المدرسة

MIDDLE EAST AND NORTH AFRICA
OUT-OF-SCHOOL CHILDREN INITIATIVE

SUDAN

COUNTRY REPORT ON OUT-OF-SCHOOL CHILDREN

OCTOBER 2014

unite for children

unicef

© 2015 UNICEF Sudan Country Office

Cover photo: © UNICEF/SUDA2014-XX916/Noorani

Preface

From a human rights perspective, equity means that all children have an opportunity to survive, develop and reach their full potential, without discrimination and exclusion. This perspective is supported by the Convention on the Rights of the Child (CRC), which guarantees the fundamental rights of every child, regardless of gender, race, religious beliefs, income, physical attributes, geographical location or other status. Education has far reaching effects beyond the classroom. Through education, societies foster values, spread ideas and equip individuals with skills that enable them to participate actively in society. It is the most powerful weapon you can use to make a positive change in the life of the people.

Sudan's Interim National Constitution makes education a right for every citizen and requires the state to guarantee access to free basic education, without discrimination on the basis of religion, race, ethnicity, gender or disability. Similarly, the Education Sector Strategy Plan (ESSP) for 2007-2011 and for 2012-2016 expresses the country's commitment to the Education for All (EFA) goals and outlines activities to be undertaken to meet the education targets in the Millennium Development Goals (MDGs). Although considerable progress has been achieved in quantitative and qualitative terms, the pace has been too slow to reach the EFA and MDG targets by 2015, and there are wide variations in accomplishments among the 18 states.

UNICEF and the UNESCO Institute for Statistics (UIS) initiated the joint Global Out-of-School Children Initiative (OOSCI) study. The overall goal is to highlight the magnitude of the problem and the urgency of addressing it as well as the need to provide guidance for improved assessment and monitoring. The results of the study are critical for accelerating and scaling up school enrolment in basic education, in line with the goal of attaining and sustaining the Universal Primary Education (UPE) Goal in 2015.

The OOSCI study provides excellent evidence for policy reforms and the designing of targeted interventions that will tackle different bottlenecks and address the causes that hinder children from enjoying basic education. It again outlines the need for an integrated approach of social, economic and educational activities involving a number of institutions, agencies and community-based organisations.

We strongly hope that the results of this study will serve as the catalyst for policy debate and programme innovation at all levels. We must not only have policies and strategies in place that address the causes of children's exclusion from schooling but we also need to ensure that resources are made available and are distributed to where they are needed most.

Adam Abdalla El Nour

Honourable State Minister of Education
Federal Ministry of Education – Sudan

Geert Cappelaera

Representative
UNICEF Sudan

Acknowledgements

This study would not have been possible without the support, cooperation, commitment and facilitation of individuals from the Government of Sudan, the Federal Ministry of Education, the Central Bureau of Statistics, our donors, the World Bank, UNESCO, UNICEF Middle East and North Africa Regional Office (MENARO) Education Section, UNICEF Sudan and NGOs.

Words of appreciation go to H.E. the Sudan Minister of Education – Soaad Abdel Raziq; H.E. the State Minister, Ministry of Education – Adam Abdalla El Nur and the Under Secretary – Dr. Taj El Sir El Shiekh, as well as to the former Under Secretary – Mohamed Ahmed Homeida, for their leadership, guidance and timely decision to establish the Core Team and National Team for the study.

Special thanks goes to the education experts and resource people; Dr. Ibtisam Mohamed, Abdel Rahman El Shareif, Ibrahim El Dasis, Musa Omer, Mubarak Yaha, Mobarak El Magrabi, Hassan Ali, El gali El Zain and the members of the OOSCI study national team for their insightful ideas, thoughts and extremely useful feedback on bottlenecks, which enriched the study report.

Our deepest gratitude goes to our two consultants Abdel Bari Nasr and Siddig Mohamed Osman for their technical support, guidance, patience and dedication in making the study a successful exercise.

We would like to acknowledge the invaluable support and technical inputs provided by Dr. Stuart Cameron, expert and reviewer from Oxford Policy Management (OPM), and Sheena Bell and Talal El Hourani from the UNESCO Institute for Statistics (UIS) for technical support on the Profiles Chapter and the core team on out-of-school statistics calculations. We also thank Lorenzo Guarcello from Understanding Children's Work (UCW) for technical support on data on child labour.

We also want to thank the core team members who participated in the study from its inception until its completion; Dr. Ibtisam Mohamed, Musa Hussien, Dr. Omsalama Alamin, Hamad Saeed, Mohamed Ahmed, Dr. Omkhalthom Mohamed, from the Ministry of Education; and Dr. Abdel Rahman El Dood, Dr. Daniel Baheta and Bernard Batidzirai from the UNICEF Education Section, as well as to the UNICEF MENARO Education team who have been involved throughout the study process. Their commitment has made this report possible.

Finally, we would like to thank all those partners who responded to our calls for meetings and discussions to validate the data, providing their insight and materials that both enriched this report and made it possible. We acknowledge your input and participation.

Sudan OOSCI study
Core team

Contents

List of figures and tables vii

List of acronyms ix

Executive summary 1

1 Introduction 7

1.1 Geographic and demographic features 7
1.2 Political and socio-economic context 8
1.3 General education system 9
1.4 Out-of-school children in Sudan 11
1.5 Preparation process 12
1.6 The purpose of the study 13
1.7 Conceptual and methodological framework 13
1.8 Limitations of the study 15

2 Profiles of excluded children 17

2.1 Data sources for out-of-school children 17
2.2 The Five Dimensions of Exclusion in Sudan 20
2.3 Profile of out-of-school children in Dimension 1 24
2.4 Profile of out-of-school children in Dimension 2 26
2.5 Profile of out-of-school children in Dimension 3 30
2.6 Profiles of out-of-school children in Dimensions 4 and 5 33
2.7 Summary 40

3 Bottlenecks and policies/strategies 41

3.1 Overview 41
3.2 Bottlenecks and policies/strategies on enabling environment 42
3.3 Bottlenecks and policies/strategies on supply 48
3.4 Bottlenecks and policies/strategies on demand 53
3.5 Bottlenecks and policies/strategies on quality education 61

4 Recommendations and conclusions 65

4.1 Overview 65

4.2 Enabling environment recommendations 66

4.3 Demand-side recommendations 68

4.4 Supply-side recommendations 69

4.5 Recommendations on quality 70

4.6 Conclusions 71

References 72

Annexes 75

Annex 1 Sources of data on out-of-school children: Example for administrative data 76

Annex 2 Data quality assessment worksheets 81

Annex 3 Out-of-school children indicators, definitions and statistics tables 91

Annex 4 Nomadic population and percentage distribution, 6- to 11-year-old children, by school attendance, sex, age and state (2008) 94

Annex 5 Economically active children, aged 10 to 14 years, by school attendance 96

Annex 6 Household samples distribution by state and source (Population Census 2008, NBHS 2009 and SHHS 2010) 97

Annex 7 Education indicators for school facilities and teachers, Baseline Survey 98

Annex 8 Definitions of selected education indicators 99

Annex 9 Study team and resource persons 101

List of figures and tables

Figures

Figure 1.1	Education ladder for general education	10
Figure 2.1	Enrolment and exclusion by age	22
Figure 2.2	Change in population and enrolments between 2009 and 2010	23
Figure 2.3	Proportion of children who are out of school and their school exposure, by sex	28
Figure 2.4	Per cent of primary-age children who are out of school by state and nomadic/rural/urban group	29
Figure 2.5	Per cent of lower secondary-age children who are out of school by state and nomadic/rural/urban group	32
Figure 2.6	Per cent of 13-14 year olds who are out of school, by employment and gender	32
Figure 3.1	Average number of children aged 6-13 per school by state	49
Figure 3.2	Average growth rates of basic school enrolment from 2004/05-2008/09, by state	56
Figure 3.3	Percentage of primary school age children who are out of school (Dimension 2), by wealth quintile, urban/rural location and gender	59

Tables

Table 2.1	Summary of school age population in and out of school	20
Table 2.2	Out-of-school children indicators by source	21
Table 2.3	Summary of out-of-school children through the Five Dimensions of Exclusion	21
Table 2.4	Enrolment by level of school and age	22
Table 2.5	Per cent of pre-primary age children who are not in pre-primary or primary education, by sex and other characteristics (Dimension 1)	25
Table 2.6	Education status of primary school-age children	26
Table 2.7	Per cent of primary school-age children who are out of school, disaggregated by gender, residence, wealth and state	27
Table 2.8	School exposure of primary-age out-of-school children by sex	28
Table 2.9	Per cent of 6-9 year olds who are out of school, by disability status and gender	28
Table 2.10	Percentage of 10-12 year olds who are out of school, by employment and gender	29
Table 2.11	Education status of lower secondary school-age children	30
Table 2.12	School exposure of lower secondary-age out-of-school children by sex	30
Table 2.13	Per cent of lower secondary school-age children who are out of school disaggregated by gender, residence, wealth and state	31
Table 2.14	Per cent of 13 to 14-year-olds who are out of school, by employment and gender	32
Table 2.15	Per cent of new entrants to primary education without pre-primary education, by sex, urban/rural and wealth	33

Table 2.16	Per cent of children in primary and lower secondary education who are two or more years overage for their grade, by sex	34
Table 2.17	Promotion, repetition and dropout by grade and sex in primary and lower secondary	35
Table 2.18	Economically active children 10-14 years of age by school attendance	36
Table 2.19	Distribution of nomadic population by state (in thousands)	37
Table 2.20	Per cent and number of nomadic primary school-age children out of school by age and by state (Dimension 2)	38
Table 2.21	Gross enrolment rates by state and share of girls in overall enrolment, 2008/2009	39
Table 3.1	Estimated total education public spending 2000-2009	45
Table 3.2	Reasons for non-enrolment (in teachers' views)	48
Table 3.3	Reasons for children aged 6-13 who never attended school	60
Table 3.4	Pupil-teacher ratios per state	63

List of acronyms

5DE	Five Dimensions of Exclusion
ALP	Alternative Learning Programme
CEE-CIS	Central and Eastern Europe and the Commonwealth of Independent States
CMF	conceptual and methodological framework
CCA	Common Country Assessment
CPA	Comprehensive Peace Agreement
CBS	Central Bureau of Statistics
CBOs	community-based organizations
CRC	Convention on the Rights of the Child
EA	enumeration area
ECCE	Early Childhood Care and Education
EFA	Education for All
EMIS	Education Management Information System
ESSP	Education Sector Strategic Plan
FMoGE	Federal Ministry of General Education
GDP	gross domestic product
GER	gross enrolment rate
IBES	Interim Basic Education Strategy
INC	Interim National Constitution
IPRSP	Interim Poverty Reduction Strategy Paper
ISCED	International Standard Classification of Education
KAP	knowledge, attitude and practice
M&E	monitoring and evaluation
MENA	Middle East and North Africa
MENARO	Middle East and North Africa Regional Office
MICS	Multiple Indicator Cluster Survey
MDGs	Millennium Development Goals
MOC	Monitoring and Observers Committee
MoES	Ministry of Education and Science
MoF	Ministry of Finance and National Economy
MoH	Ministry of Health
MoRES	Monitoring of Results for Equity System
NCCW	National Council for Child Welfare
NBHS	National Baseline Household Survey

OECD	Organization for International Student Assessment
OOSCI	Out-of-School Children Initiative
PTA	parent-teacher association
SDG	Sudanese pound
SDS2	Second Basic Education Service Delivery Survey
SHHS	Sudan Household Health Survey
SPSS	statistical package
STR	student-teacher ratio
UIS	UNESCO Institute for Statistics
UNICEF	United Nations Children's Fund
WB	World Bank

Executive summary

Country context

The signing of the 2005 Comprehensive Peace Agreement (CPA) put an end to a historical civil war in Sudan and resulted in the country's division: Southern Sudan and the Republic of Sudan (2011). While the cessation was expected to bring peace and stability, there are still many challenges threatening the future prospects of the two countries. For the Republic of Sudan, the war in Darfur, South Kordofan, Blue Nile, and Abyei, and as yet unresolved borders disputes have been negatively impacting the country's stability and development. The economic crisis due to the loss of 75 per cent of oil revenue, coupled with the global economic crisis and the Arab Spring, has narrowed the chances of bringing positive change to the living conditions of 34 million Sudanese. At the administrative level, Sudan is adopting a system of fiscal decentralization aimed at empowering sub-national governments, and thus fostering the appropriate and effective use of resources. This system takes into consideration the wide regional disparities and mitigates the root causes of conflict. The education sector in the country is, therefore, shaped and affected by these major political and administrative changes.

Educational provision in Sudan is guided by global instruments including the Convention on the Rights of the Child (CRC), Education for All (EFA) and the Millennium Development Goals (MDGs), national laws, policies and plans. The interim Poverty Reduction Strategy prioritises education as a key factor in addressing the root causes of poverty and tribal conflict. The strategy recognises that failure to provide greater access to, and improvement of, the quality of education could delay economic reform. Sudan still has a long way to go towards achieving EFA and MDG targets two and three. While there is demand for pre-school education with national enrolments up from 34 per cent in 2010 to 42 per cent in 2012, the Gross Enrolment Ratio (GER) in Basic Education (6-13 age group) has declined from 73.2 per cent in 2010 to 69.1 per cent in 2011, and 69.7 per cent in 2012. Significantly, there are still more than 3 million children aged 5-13 years out of school.

The Global Out-of-School Initiative (OOSCI) is a call to bring all out-of-school children to school by 2015. The study findings will help participating countries such as Sudan to provide evidence that will help the government and partners to identify which children are out of school and why they are not in school. Sudan's out-of-school children study was conducted as part of the Global OOSCI initiated by UNICEF and the UNESCO Institute for Statistics (UIS) in 2010. The initiative's goal is to make a significant and sustained reduction in the number of children out of school around the world by: (1) developing comprehensive profiles of excluded children based on standardized and innovative statistical methods; (2) linking quantitative data with the socio-cultural barriers and bottlenecks that lead to exclusion; and (3) identifying sound policies that address exclusion from education with a multi-sectoral perspective.

The purpose of the study

The study undertaken in 2013 is part of a global initiative aimed at:

1. Improvement of the statistical information and research on out-of-school children including the identification of the factors of exclusion from schooling (such as the multiple disparities beyond education), and strengthening institutional capacities for implementing appropriate statistical and monitoring systems.
2. Strengthening analytical policy making that enhances school participation, including scaling up enrolment and sustaining school attendance rates through identifying bottlenecks and developing appropriate, realistic and robust plans with cost-estimates, and financing strategies.

Conceptual and methodological framework of analysis

The conceptual and methodological framework (CMF) introduces a new model for analysing the problem of out-of-school children through the 'Five Dimensions of Exclusion' (5DE) that capture excluded children from pre-primary (Dimension 1), primary (Dimension 2) and lower secondary (Dimension 3) school age; while Dimensions 4 and 5 cover children who are attending primary or lower secondary school but are at risk of dropping out. It also analyses the various degrees of exposure children have to education, as well as the impact of multiple, intersecting disparities on children's exclusion from education. The CMF supports a more systematic linkage and leveraging between three main components:

- **Profiles** of excluded children, capturing the complexity of the problem of out-of-school children in terms of magnitude, inequalities and multiple disparities around 5DE.
- **Barriers and bottlenecks** to clarify the dynamic and causal processes related to 5DE.
- **Policies and strategies** to address the barriers and bottlenecks related to 5DE within education and beyond (looking at social protection systems).

Administrative data from the Population Census 2008, EMIS, Sudan Household Health Surveys (SHHS) 2006 and 2010 and other relevant research were used to estimate the number and characteristics of out-of-school children as well as to identify major bottlenecks and barriers to school participation.

Number and profiles of out-of-school children

The concept of out-of-school children implies that there is a group of children that should be in school but are not. Sudan has both the largest number and the highest out-of-school children rate in the Middle East and North Africa (MENA) region. The 2010 EMIS data indicates that a total of 3 million children between the ages 5 to 13 are out of school in Sudan. This comprises 490,673 children of pre-primary age (5 years), 1,965,068 children of primary school age (6-11 years) and 641,587 children of lower secondary school age (12-13 years). The proportion of out-of-school girls is higher than boys across Dimensions 1, 2 and 3.

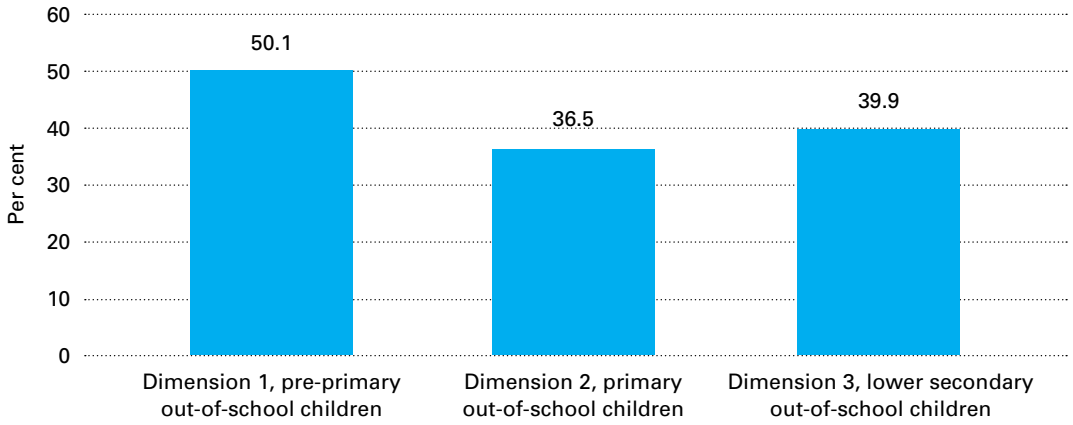
The figure below indicates that pre-primary aged children are most at risk of being out of school, followed by lower secondary and primary school-aged children. It is a challenge estimating an accurate number of out-of-school children in Sudan. There are discrepancies in figures generated from administrative and household survey data due to differences in the definitions and age estimates used. The figures from the different data sources used in this report indicate the range of numbers recorded for out-of-school children in Sudan.

Summary of out-of-school children through the Five Dimensions of Exclusion

	Girls		Boys		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Out of school children						
Dimension 1: Children 5 years old (pre-primary)	241,944	50.3	248,729	49.8	490,673	50.1
Dimension 2: Children 6 to 11 years old (primary)	1,040,560	39.6	924,508	33.5	1,965,068	36.5
Dimension 3: Children 12 to 13 years old (lower secondary)	328,946	42.3	312,641	37.7	641,587	39.9
Total out of school children (5-13 years old)	**1,611,450**		**1,485,878**		**3,097,328**	
Children incurring a risk of dropping out						
Dimension 4: Children enrolled in primary	310,086	19.2	220,679	12.0	530,765	15.4
Dimension 5: Children enrolled in lower secondary	7,940	3.9	22,260	8.3	30,200	6.4
Total children at risk of dropping out	**318,026**		**242,939**		**560,965**	

Source: EMIS 2009 and 2010.

The profile of out-of-school children indicates that exclusion from school prevails in rural settings among disadvantaged groups including nomads, war-affected populations and internally displaced persons. Children from poor families and girls remain at risk of leaving school due to economic factors and social norms. Some ethnic and religious communities hold negative perceptions of formal education. Such inequities or disparities often interact to create complex and mutually reinforcing patterns of disadvantage and barriers to schooling. The multidimensional and overlapping nature of disparities and the patterns of exclusion can, therefore, be analysed across the Five Dimensions of Exclusion.



Using SHHS 2010 data to analyse the wealth index, it is clear that the low wealth status of the family negatively correlates with school exclusion across Dimensions 1 through 3. About 77 per cent of the out-of-school children at pre-primary age are from among the poorest households, compared to 18 per cent among the richest households. Similarly, 52.4 per cent of primary school age and 42.2 per cent of lower secondary age out-of-school children are from among the poorest households compared to 3.6 per cent primary and 3.4 per cent lower secondary age out-of-school children among the richest households. Among excluded groups, nomadic communities have the highest proportion of out-of-school children with marked gender and regional disparities. Close to 21 per cent of the total out-of-school children in Sudan aged 6-11 years old are nomadic children. One third of the children currently in primary school are at risk of leaving before reaching the last grade of primary school. Girls who have started primary school are more likely than boys to leave school before reaching the last grade. This is despite the majority of children leaving school reported being boys, simply because there are more boys who enter the system.

Bottlenecks and barriers

One important contribution of OOSCI rests in identifying and analysing bottlenecks and causes in relation to country context and policies across each of the Five Dimensions of Exclusion. The OOSCI guidance note identified four categories of determinants as a conceptual framework of analysis, known as 'Monitoring Results for Equity Systems' (MoRES): enabling environment, supply, demand and quality. The study's findings indicate that the out-of-school children determinants in Sudan are sociocultural, economic, political, educational and institutional. Based on the literature review, the main bottlenecks of exclusion under an enabling environment are the social norms, traditions and values prevailing among the nomads, pastoralists and conflict-affected communities. The high value that communities attach to herding animals and cattle grazing, as well as widespread poverty, means children engage in family labour rather than going to school. This, along with early marriages and high illiteracy rates in rural areas, act as barriers against children's enrolment and contribute to high dropout rates (particularly amongst girls).

Inadequate financing and implementation of education policies and lack of equitable resource allocation directly contribute to the disparities between states in terms of gross enrolment rates. Some states have more advanced education systems and higher enrolment rates, while others are far behind in terms of enrolling children in basic school, especially the war-affected Darfur states, Blue Nile and South Kordofan.

The indirect costs of education, including the payment of school fees, was the most common reason cited for non-enrolment and non-attendance in pre-education, primary and lower secondary education. There are also other direct and indirect costs incurred by parents such as transportation, exercise books and pencils, food, and sanitary materials for girls. These costs increase as children progress to higher levels of education.

The study shows that without reliable information and an effective monitoring system, adopting evidence-based policies/strategies and introducing results-based programming will be a difficult task. Increasing the institutional capacity of the Ministry of Education (MoE) in information management, monitoring and evaluation (M&E), policy analysis and programming regarding out-of-school children is probably the most effective way to address exclusion, disparities and discrimination. The lack of effective protection systems for targeting vulnerable, needy and poor families contributes to children leaving school and deters out-of-school children who have never attended school from enrolling. Child labour is also a significant cause for children being out of school.

Supply-side obstacles that keep children from attending and staying in school include limited infrastructure, poor school environments and a shortage of educational materials. Inequitable distribution of financial resources for education in Sudan is a barrier for out-of-school children across all Five Dimensions. The limited investment in the education sector has resulted in poor infrastructure, lack of textbooks, education supplies and proper seating, inadequate water and sanitation facilities, and lack of trained teachers. The supply-side barriers affecting Dimensions 1 and 2 are mainly related to distance to school, lack of school infrastructure and the lack of trained teachers.

The conflict in Darfur, Blue Nile and South Kordofan is a major factor in contributing to out-of-school children across the Five Dimensions. The bottlenecks in conflict-affected areas are many and include lack of access due to inadequate infrastructure, lack of security, poor school environment and costs that are too high for poor parents.

The free education policy declared by a presidential decree is not being implemented and in most cases parents are still paying, in one way or another, fees at different rates. Some customs attribute a low value to education, which deters parents from sending their children to school. Girls in rural and nomadic areas are particularly at risk of dropping out due to early marriages, traditions and community perceptions.

Policies and strategies

The Interim National Constitution (INC) 2005 recognized that achieving the Millennium Development Goals (MDG's), including Education for All (EFA) targets, is a prerequisite for achieving socio-economic stability in Sudan. The INC stipulates that education is a right of every citizen and requires the State to guarantee access to free basic education, without discrimination on the basis of gender, religion, race, ethnicity or disability. The Education Sector Strategy Plan for 2012-2016 expresses the country's commitment to the EFA goals and outlines activities to meet the MDG education targets.

Long-term strategies appear to be the most effective in addressing the sociocultural bottlenecks that require behavioural change. Community mobilization and enrolment campaigns have been partly successful in fostering positive attitudes towards education, changing sociocultural norms and generating educational demand in low-enrolment localities, including nomadic settlement areas. Initiatives such as construction of classrooms, provision of education materials and community empowerment introduced to meet the increasing demand, have proved to be effective and need to be strengthened.

The Interim Basic Education Strategy provides a framework for coordination and coherence of sector financing and support among the key partners (government, donors, multilaterals and civil society). It also provides a results-based planning and monitoring framework for significant and measurable progress towards 'access for all' to quality basic education and the improvement of secondary, vocational and informal education. These all need to be supported by a strengthened education system.

The Federal Ministry of General Education (FMoGE) developed and adopted a number of national sub-strategies and frameworks aimed at increasing access to education for marginalized children. They include strategies for education of nomadic groups, girls, and children with disabilities. Moreover, the government adopted the 'Child-Friendly School' concept to improve education quality and learning achievement. Implementation of these strategies has shown some positive results, but generally, they have not been sufficient to reduce the number of out-of-school children, especially among the most vulnerable children and communities.

The MoE's National Council for Literacy and Adult Education has been implementing the Alternative Learning Program (ALP) for out-of-school children who have never attended school, left school or who cannot be mainstreamed into the formal education system without catch-up lessons. ALP is focused on numeracy and literacy to enable children's re-integration into the appropriate level of the formal system. In addition, life-skills and vocational training are provided to out-of-school children and youth.

The Education Management Information System (EMIS) is a prime source of administrative data for the Ministry of Education. It has played a critical role in capturing disaggregated educational input and output data. EMIS data has been used much in this study report. However, the system is still not fully operational and needs to be upgraded to produce quality data. In addition, documentation on state-level education spending remains an issue that needs to be addressed more broadly in order to improve the public financial management system within the Ministry of Finance and National Economy.

Key recommendations

The OOSCI study provides much information about the characteristics of the excluded groups of children, the barriers they face in attending school and the major gaps in current education policy. Based on the findings, the study came up with the following key recommendations for policy action and intervention to address the barriers to school participation and to strengthen the existing opportunities.

1. **Increase public spending on basic education and pre-school.** The government needs to ensure a sustainable increase in financing basic education, as current public spending is not sufficient to undertake the interventions needed to address out-of-school children. Monitoring processes need to be established to ensure that transfers of resources to the education sector within government accurately reflect the planned budgetary allocations and that basic education financing and expenditure data are collected and analysed regularly.
2. **Strengthen the institutional capacity of localities in planning, management and implementation of education programmes.** Localities have to be supported financially and technically to develop evidence-based education plans that will provide increased education opportunities for out-of-school children. Such plans should promote explicit objectives, practical strategies, coordinated action and large-scale integrated programming and financing mechanisms.
3. **Improve EMIS.** Upgrade the existing EMIS and add indicators that enable monitoring of out-of-school children as well as education quality. Consider using other sources that provide data on school participation and exclusion to complement EMIS administrative data.
4. **Bridge the gap between policy formulation and implementation, and establish follow-up mechanisms.** Effective implementation of education policies and guidelines is constrained by lack of resources. It is recommended that the MoE develops a policy on resource mobilization and regularly monitors and evaluates implementation of education policies.
5. **Reduce and gradually eliminate high school costs/education fees.** The government, in particular the MoE, should explore innovative ways and use other countries' experiences to more effectively implement the free education policy. Allocating a small budget to schools to meet daily needs may be explored, drawing upon current experience of Global Partnership for Education (GPE)-funded school grants across Sudan. Support to school communities and parent-teacher associations (PTAs) through micro-credit schemes to start income-generating activities is another option.
6. **Continue constructing and opening new schools with pre-school facilities in localities with low enrolments as a strategy to invest in excluded children.** Based on school mapping and school improvement plans, increase the number of schools, improve the quality of school infrastructure and scale up the implementation of CFS. This includes opening additional ALP centres.
7. **Improve teachers' remuneration policy.** Improving the teachers' management system in terms of recruitment, deployment, utilization, remuneration and supervision is critical to the efficiency and performance of the education sector. This could be done through mapping human resources and the school needs of teachers with special focus on nomadic, rural schools and ALP centres.
8. **Promote community involvement and participation in school activities.** Encourage schools to adopt an 'open-door' policy that would allow and encourage parents to visit the school as often as they wish to discuss their children's progress. Parents with the ability to help their children in their studies should be encouraged to do so, especially at home with guidance from the school. Give higher priority to interventions mitigating sociocultural barriers to schooling with community participation.

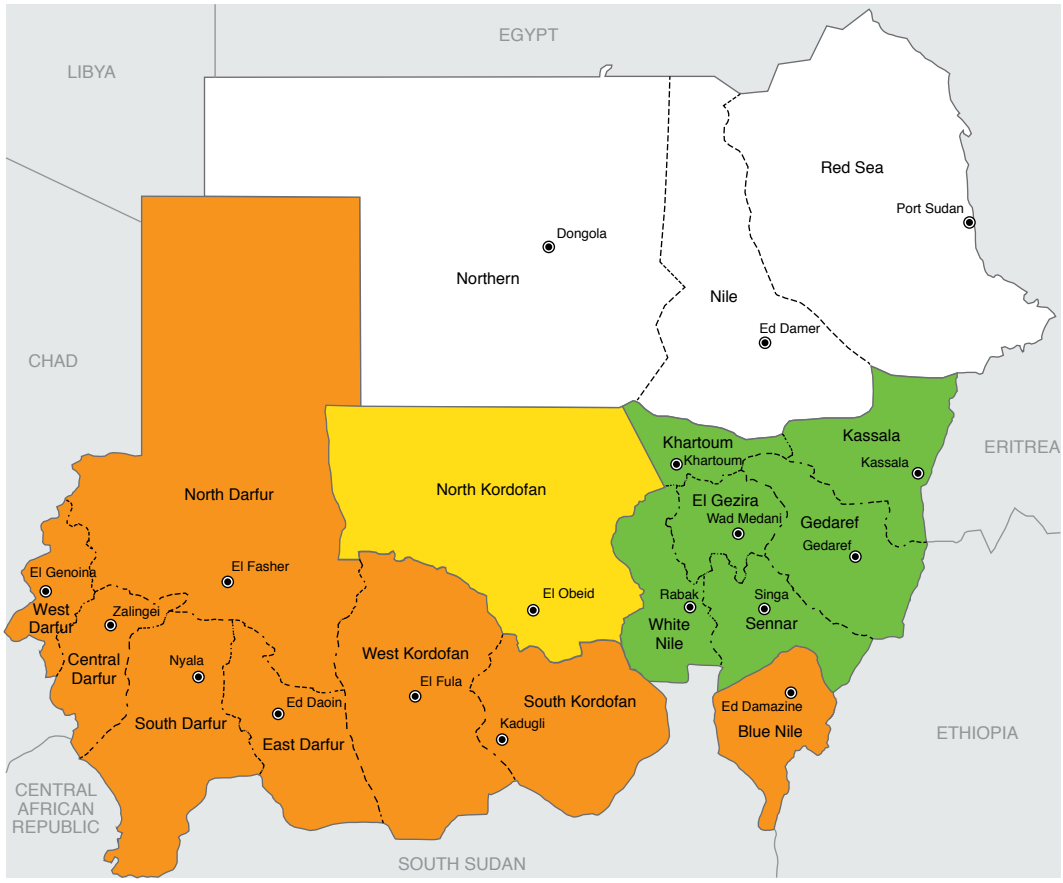
1 Introduction

1.1 Geographic and demographic features

The Republic of the Sudan is located in northeastern Africa and shares borders with seven countries: Egypt, Eritrea, Ethiopia, South Sudan, Central African Republic, Chad and Libya. Internally, the country is bisected by the Nile, the second longest river in the world. The population of Sudan is a combination of indigenous inhabitants of the Nile Valley and descendants of migrants from the Arabian Peninsula.

Administratively, the country is divided into 18 states: Northern, River Nile, Red Sea, Kassala, Gedarif, Khartoum, Gezira, Sinnar, Blue Nile, White Nile, North Kordofan, South Kordofan, North Darfur, West Darfur, South Darfur, and the recently established West Kordofan, Eastern Darfur and Central Darfur. States are further divided into localities and administrative units.

Map of Sudan



Sudan's territory covers some 1.8 million square kilometres. In 2011, the population of Sudan was estimated at 34 million based on the 2008 population census. About 8 per cent of the population (2.7 million) are nomads and pastoralists. The population of Sudan is growing rapidly – 2.5 per cent annually – with an average fertility rate of 5.5. The average household size is 6.4 persons. Life Expectancy at birth is estimated at 54 years. Overall, Sudan is experiencing a major demographic shift, with an increasingly young, urbanized population. There are 15 million children below the age of 18 and 4.5 million below the age of five. In some regions, children under the age of 16 years constitute 52 per cent of the population. The adult literacy rate is estimated at 57 per cent.

The people of Sudan are diverse in terms of cultural and historical heritage. There are more than 150 ethnic groups and tribes, many of which have distinct languages, religious affiliations, customs, traditions, territorial domains and localized economies. This rich diversity in identities is sometimes reflected in competition over resources, notably water and grazing rights, which have been the source of numerous inter-tribal conflicts.

1.2 Political and socio-economic context

Sudan has a long history of political instability, civil war and armed violence that has seriously affected education prospects and jeopardized the country's long-term economic and social development. In such situations, children and women are affected most. 2011 marked a turning point for Sudan that underscored the complexity of the socio-economic and development context. The six-and-a-half-year term for implementing the 2005 North/South Comprehensive Peace Agreement (CPA) came to an end. This was a period that, together with macroeconomic stability and an endowment of considerable natural resources, provided significant opportunities to accelerate economic growth and improve access to social services. Moreover, these conditions were followed by peaceful presidential and parliamentary elections held in April 2010.[1]

The recent studies conducted by the World Bank in 2010 and the Common Country Assessment prepared for UNDAF in 2011 are the main sources of information on the economic situation in the Sudan. There is an absence of recent updates, in-depth research and studies at the national and state levels. Sudan's economy grew sharply in the late 1990s, after the beginning of oil export, which was considered a seed of hope for bringing the country stability. Between 1996 and 2011, GDP per capita more than quadrupled and stood at US$2,064 at 2011 prices. However, the secession of South Sudan in July 2011 changed the situation significantly, as Sudan lost around 75 per cent of its oil revenues. Although the secession represented a major step forward after nearly four decades of civil war, several issues that remain unresolved are likely to have profound implications for the development, early recovery and humanitarian agendas in Sudan. Foremost among these is the question of division of the oil revenues. Recent incidents clearly indicate continuing tensions and an urgent need for improved relations between the Republic of Sudan and South Sudan.

Even during the years of rapid economic expansion, achieving broad-based growth presented problems for Sudan. The World Bank's 2009 Country Economic Memorandum highlighted this, arguing that the inability of oil-induced growth to be sufficiently inclusive posed the ultimate challenge to its sustainability. The memorandum pointed out the massive disparities in development indicators, including the fact that the capital, Khartoum, consumed nearly one third of the electricity produced in the country. According to the 2009 National Budget Household Health Survey, 46.6 per cent of the population is below the national poverty line. Poverty, moreover, takes on a spatial and regional character with 26.5 per cent of urban dwellers below the poverty line, compared to 57.6 per cent of the population in rural areas. Displaced populations, nomadic groups, rural populations, children with special needs and female children in

[1] Common Country Assessment, UN Agencies, Sudan, 2012 (p.11).

particular are vulnerable to higher incidences of poverty. Geographic disparity in Sudan is marked, varying from 26 per cent living below the poverty line in Khartoum to 63 per cent in Darfur, and from 59 per cent in Kordofan to 46 per cent in the east of the country. The poverty gap index in Khartoum is 6 per cent compared to 27.4 per cent in Northern Darfur. Similarly, the net enrolment rate (NER) in primary education varies from 85 per cent in the best-performing region to 57 per cent in the worst; the literacy rate of 15-24 year-olds ranges from 63 per cent to 94 per cent; and the share of women in non-agricultural wage employment varies from 22 per cent to 12 per cent. With oil-driven economic growth coming to a halt, there is a risk that these disparities could become even more pronounced, as a result of high inflation, increasing unemployment and lower social spending.[2]

Taking Darfur as an example, emergency education occupies a strategic position among development priorities, yet conflict has put the education of children in Darfur at considerable risk. The restoration of learning opportunities for conflict-affected children has been the priority of humanitarian programmes. However, in spite of sustained efforts, critical components of basic, secondary and tertiary education remain largely deficient due to limited access, financial constraints and the lack of operational capacity on the ground.[3]

1.3 General education system

Sudan has committed itself to all international declarations, including providing the basic right of education to all of its citizens. It is among the signatories of the MDGs as well as the EFA goals, and has taken several policy and programme initiatives to achieve these international goals. Specific laws and acts have been adopted to regulate and promote basic education in Sudan, including the Basic Education School Regulation of 1992, National Centre for Curricula and Educational Research Act of 1996, The General Education Planning Act of 2000, and Parent-Teacher Associations Regulation of 1992. By virtue of the Council of Ministers Resolution No. 1799 of 1990, pre-school has become an integral part of the formal education system.

The 2001 Education Act stipulates that every Sudanese child has the right to basic education. The five-year Strategic Plans for 2007-2011 and 2012-2016 give support to this law by providing policies and strategies for achieving the right to education. The Interim Poverty Reduction Strategy Paper (IPRSP) of the Government of Sudan prioritizes education as a key factor in addressing the root causes of poverty and tribal conflict. The paper emphasizes that failing to provide greater access to and enhanced quality of education could delay the reform of the country's economy. Education is deemed as critical for sustained growth and increased labour productivity.

In 2012, the Sudanese Ministry of General Education prepared an Interim Basic Education Strategy (iBES) in anticipation of the development of a five-year Education Sector Strategy Plan in Sudan. The iBES is closely linked with the Government's five-year national development plan, the state-level five-year development plans, the Interim Poverty Reduction Strategy and the National Plan to 2024. The iBES focuses on strategies for expanding access to quality basic education in observance of the MDGs and the EFA goals. The iBES provides the framework in which the Government and education partners will contribute to the overall strategic goal of achieving 'significant and measurable progress towards access for all to basic education of good quality, expansion of quality secondary education, vocational and non-formal education supported by a strengthened education system'. Under this overarching goal, three pillars have emerged as critical for basic education: access, quality and system strengthening. To improve the quality of learning the iBES suggests key interventions to ensure a safe and conducive learning environment. It recommends gender-sensitive

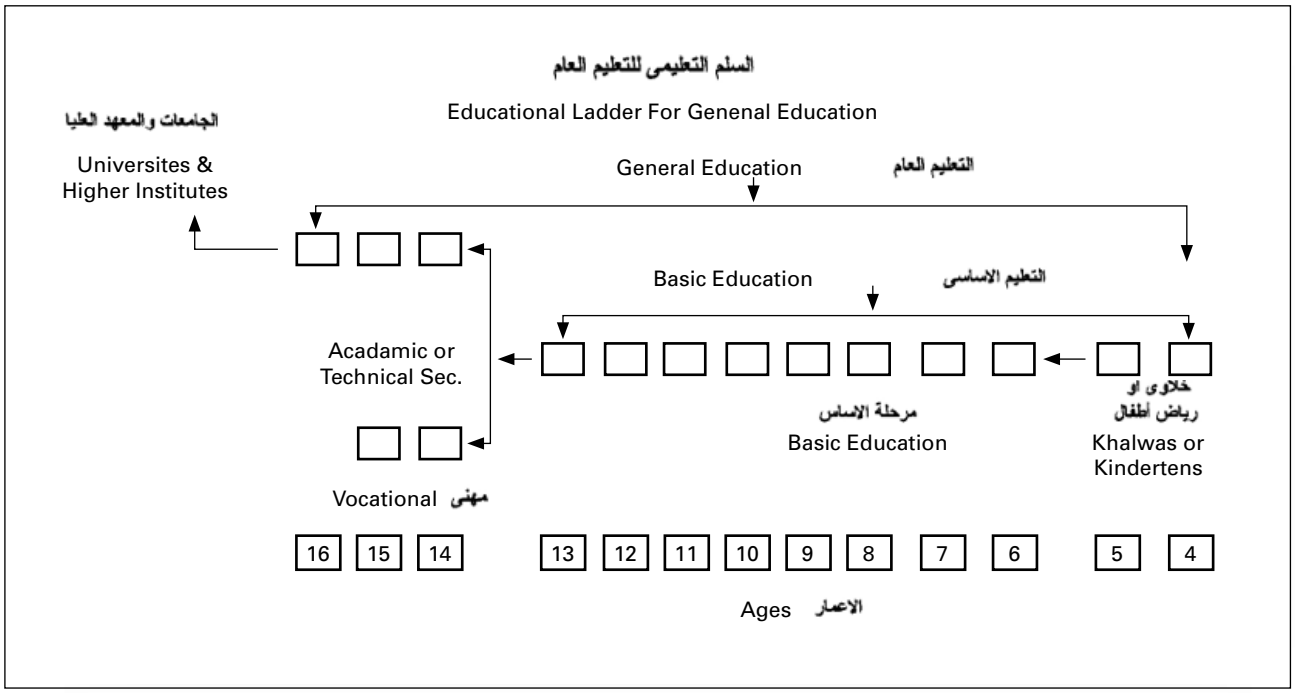
[2] ibid page 2.

[3] 2013-2019 Developing Darfur: A Recovery & Reconstruction Strategy Pursuant to Article 31 of the Doha Document for Peace in Darfur Joint Assessment Mission Prepared on behalf of the Darfur Regional Authority.

extra-curricular activities, interventions to prevent violence in schools and empowering school management committees. The quality of teaching is expected to be improved through teacher training programmes and the provision of textbooks. The strengthening of institutional capacities is also essential and will be addressed by developing a learning assessment system, strengthening school management, developing a teachers' management system, expanding the EMIS, and providing support to the MoE to plan, manage, monitor and report on performance against set targets.

Basic education in Sudan includes pre-school education (*Khalwa* and kindergarten) and basic education. Pre-school comprises two years targeting children of 4-5 years of age, while basic education includes eight years of schooling for children from 6-13 years of age. After the final year, students sit for the basic-level certificate examination, which qualifies them for admission to secondary school *(see the Educational ladder of general education, Figure 1.1).* This system was introduced in 1992 as part of a comprehensive reform of general education, reducing the duration from 12 years (six for primary, three for intermediate and three for secondary) to 11 years (eight for basic education and three for secondary). The current system includes two years for pre-school, which was not compulsory in the previous system. The philosophy behind this was to increase the productive age of the learners and to avoid unnecessary loading and cramming of the curriculum.[4] The loss of one year was to be compensated for by an extension of a scholastic year from 180 to 210 school days.

Figure 1.1 Education ladder for general education



Source: FMoGE 2010 Report.

Secondary level contains two types of education:

1. Academic education: lasting three years. This qualifies students for the Sudan school certificate examination, which is the requirement for eligibility for tertiary education at a university or higher institute; and
2. Technical education: lasting three years. This is designed to provide students with more opportunities and options. This also qualifies students to sit for the Sudan school certificate and gain access to tertiary education. Technical education is offered in four specialities: commercial (trade), industrial, agricultural and women's schools.

[4] The Development of Education – National Report of Sudan, FMOE August 2004.

In addition, there are other types of government schools and institutes operating in parallel to the official ladder. Also in accordance with the general educational regulations are programmes at religious institutions, vocational training centres, and ALP classes and adult education/literacy centres.

Since 1993, the educational system of Sudan has been structured along federal lines, divided into the three tiers of state, locality and administration units in order to improve the efficient use of available resources. Primary responsibility for basic education lies with localities, which have very limited financial resources to effectively carry out their responsibilities. The Federal Ministry of Education is responsible for planning, training, curricula, evaluation and foreign relations. All other aspects of the educational process have been delegated to the states, which also participate in federal functions through their representation in the National Council of General Education.

Sudan has achieved a substantial increase in basic school enrolment since 2005. Basic school enrolment increased by almost a million students between 2004-05 and 2008-09, which corresponds to an average annual growth of 5.7 per cent. However, according to MoE annual statistics, the gross enrolment ratio (GER) ratio for basic education (6-13 age group) has shown a decline from 73.2 per cent in 2010 to 69.1 per cent in 2011 and 69.7 per cent in 2012. The enrolment in pre-school education has risen from 34 per cent in 2010 to 42 per cent in 2012. While the coverage of basic education has increased significantly over the last nine years, the basic school GER is still low from a comparative international perspective.

1.4 Out-of-school children in Sudan

Based on UNICEF and UNESCO definition, the concept of out-of-school children implies that there is a group of children that should be in school but are not. This group is recognized both nationally and internationally as primary school-age children. According to UIS classification in Sudan, primary school-aged children are from 6-11 years old compared to those under the national education system who are from 6-13 years old. According to MENA region estimates, Sudan has both the largest number and the highest rate of out-of-school children in the MENA region. Almost a third of children – more than 3 million in all – are not receiving basic education. In this report we have drawn attention to the various data sources calculating different out-of-school children figures. It is apparent that the administrative and survey data on out-of-school children differ in terms of definitions and methods of measurement. It is hoped that this report will stimulate productive dialogue to improve the quality of national and international education measures.

In addition to those who never attended schools, there are many children who do not stay to complete their primary education certificate. Gender inequalities persist, particularly in rural areas and among nomadic communities. A poor rural girl's chance of accessing quality education is 25 per cent lower than that of a well-off urban boy.[5] The 2001 Education Act for the planning and organization of general education has stipulated the right to education for all children of eligible school age without discrimination. Within the policy framework, the MoE seeks to reform the education system to:

- close the gender gap and regional imbalances;
- expand opportunities for compulsory universal basic education, including access to pre-school education;
- improve quality and education relevance through an improved national curriculum;
- improve efficiency of the education system education; and
- adopt the principle of participation in the financing of education.

[5] Sudan Household Health Survey 2010, Ministry of Health and Central Bureau of Statistics.

The challenge facing the education sector in Sudan is not just about getting children to attend school; it is also about keeping them there. Most children drop out before achieving their primary school qualification. The Status of Sudanese Children Report 2011 indicates that only three out of four primary school age children are receiving a formal education (with almost 2 million children not attending schools[6]). The World Bank Education Sector review report indicates a dropout rate of 6 per cent per grade for Grades 1 to 7. Retention is also a challenge. The Sudan Household Health Survey (SHHS 2010) found that once children are enrolled in Grade 1, they have an 82 per cent chance of making it to Grade 8, with variations ranging from 65 per cent for children in the poorest quintile to 94 per cent in the wealthiest. Similarly, analysis of population census data indicates that school attendance peaks at age 11 and then drops during the following 10 years, particularly among girls, when children are needed by families and, in some cases, due to lack of water and sanitation facilities in schools. These gaps demonstrate that although there is gradual progress made toward Sudanese children realizing their right to education, a few million children remain excluded from this right. The out-of-school children in Sudan face complex and mutually reinforcing patterns of disadvantage and barriers to schooling, mainly linked to income-poverty, exposure to child labour, conflict and natural disasters, location (urban/rural, nomadic) and migration/displacement, gender and disability. The many factors associated with dropping out need to be analysed and understood.

1.5 Preparation process

As leading government institutions in Education, the Ministry of General Education and the Central Bureau of Statistics share the responsibility of conducting the OOCSI study with technical and financial support from UNICEF and the World Bank. The MoF and National Economy, the National Council for Child Welfare and the Federal Ministry of Health have been members of the country team to reflect and to ensure the integrated and multi-sectoral nature of the Initiative. To conduct the out-of-school children study for Sudan the MoE established two committees:

- The National Team constituted of education partners working on education statistics and staff from the Heads of Ministry Directorates to provide guidance and leadership support.
- A Core Team of seven people from the National Team. The Core Team was technically involved in the development of the country study and in the capacity development activities. The Core Team also included two national experts on data analysis and report writing.

The Core Team, in collaboration with the National Team and stakeholders, collected information for various data sets from existing sources. The methodology for the OOSCI Country Report was updated and finalized based on available sources and the OOSCI guidelines.

1. **Data inventory.** This was the starting point for the country study, which identified the main data sources including household surveys, education-related assessments and research, and EMIS. The data set of the household surveys was qualified by an expert, and the analysis was based on the tabulation plan and the out-of-school children indicators. The main data sources were the EMIS, SHHS 2010, 2008 Census data, the Baseline Survey on Basic Education in the Northern States, the Education Sector Status review, and the Interim Basic Education Strategy.
2. **Literature review.** A thorough review of available literature on issues of participation, provision of services and out-of-school children was conducted to identify the barriers and bottlenecks and the related policies regarding out-of-school children. The review covered reports from previous studies on issues relating to education,

[6] The State of Sudanese Children Repot 2011, NCCW.

poverty, disability, child labour, school discipline, curriculum, social attitudes towards education, government policies, education strategies, long-term and short-term plans for education delivery and development, financing of education etc.

3. **Data analysis.** The data sets from EMIS and SHHS were the main data analysed and used to develop the profile of out-of-school children in Sudan. SPSS was the statistical package used to generate the results based on the tabulation plan.
4. **Consultation meetings.** Regular consultation meetings were convened and attended by the core committee members. Several 'discussion and fact validation meetings' were held with national education experts, partners and civil society organizations, contributing to analysis and findings. The profile results were presented and discussed with the senior staff of the MoE including, H.E. the State Minister. The bottlenecks, policies and recommendations were discussed in a forum attended by the Core Committee. The first and the second draft reports were shared with the MoE and external experts, as well as with UNICEF staff in the Education section. Comments were discussed and accommodated to further improve the final report.

1.6 The purpose of the study

In 2010, UNICEF and the UNESCO Institute for Statistics (UIS) launched the Global Out-of-School Children Initiative, and Sudan was selected as one of the 25 case study countries. The purpose of this study is to examine the detailed profiles of out-of-school children in Sudan (Chapter 2), to scrutinize major barriers to school participation (Chapter 3), and to analyse existing policies and strategies that could help tackle key bottlenecks (Chapter 4), and to propose recommendations and policy options to address the problem of out-of-school children and contribute to concrete reforms for the equitable coverage of basic education in Sudan.

The Initiative aims to support countries building their own systems to:

- Improve the statistical information and research on out-of-school children including to: identify the factors of exclusion from schooling (such as the multiple disparities beyond education) and; strengthen institutional capacities for implementing appropriate statistical and monitoring systems.
- Strengthen analytical policy making that enhances school participation, including efforts to scale up enrolment and sustain school attendance rates, through identifying bottlenecks and developing appropriate, realistic and robust plans with cost-estimates and financing strategies.

1.7 Conceptual and methodological framework (CMF)

The CMF introduces a new model for analysing the problem of out-of-school children through the Five Dimensions of Exclusion Model, capturing excluded children from pre-primary to lower secondary school age. It also analyses the various degrees of exposure children have to education, as well as the impact of multiple, intersecting disparities on their exclusion from education. It supports a more systematic linkage and leveraging three main components:[7]

- **Profiles** of excluded children, capturing the complexity of the problem of out-of-school children in terms of magnitude, inequalities and multiple disparities around the Five Dimensions of Exclusion.

[7] Out-of-School Children Initiative Workshop, MENA, Istanbul, 2013.

- **Barriers and bottlenecks** to clarify the dynamic and causal processes related to the Five Dimensions of Exclusion.
- **Policies and strategies** to address the barriers and bottlenecks related to the Five Dimensions of Exclusion within education and beyond, which includes social protection systems.

The Five Dimensions of Exclusion

Dimension 1:	Children of pre-primary school age who are not in pre-primary or primary school
Dimension 2:	Children of primary school age who are not in primary or secondary school
Dimension 3:	Children of lower secondary school age who are not in primary or secondary school
Dimension 4:	Children who are in primary school but at risk of leaving school
Dimension 5:	Children who are in lower secondary school but at risk of leaving school

Within the Sudan context the Five Dimensions of Exclusion are classified as follows:

- Dimension 1 represents children of pre-primary school at the age of 4 and 5 years;
- Dimension 2 captures the out-of-school population of primary school-aged children not in primary or secondary education (aged 6-11 years);
- Dimension 3 captures out-of-school children in the lower secondary school age group not in primary or secondary education (aged 12-13 years);
- Dimension 4 covers children in primary school who are considered at risk of dropping out; and Dimension 5 covers children in lower secondary school who are at risk of dropping out.

In summary, these Five Dimensions characterize out-of-school and at-risk children not participating in the intended level of education for the intended duration at the intended age group.

By introducing the CMF approach, the study seeks to provide evidence-based information that helps answer the main questions: **Who are the out-of-school children; and why are they out of school?**

- What do we mean by out-of-school children? How do we arrive at better estimates? The main objective of this component is to improve knowledge of the number and characteristics of out-of-school children through the definition of school participation and through the improved use of existing national measures of schooling status from both supply and demand perspectives.
- Who are the out-of-school children? Why are they out of school? The main objective of this component is to identify the characteristics of children and to analyse the factors that determine why they are in or out of school. This includes an analysis of disaggregated data from household surveys to identify markers of exclusion, as well as an introduction to the construction of a composite index of schooling status.
- Analysis of existing policies aimed at out-of-school children and the development of improved and scaled interventions. The main objective of this component is to identify the policies and interventions needed to reduce barriers to school participation. Once these are known, their cost can be estimated.

Following the Istanbul regional workshop on OOSCI and bilateral meetings with the UNICEF MENARO team and experts, the Sudan Country Study aimed to focus on the pre-primary to lower secondary age groups and on the first three out of the Five Dimensions of Exclusion. There was also a consensus reached with the MENARO team that the Sudan Country Study would focus on issues relating to children affected by conflict, nomadic children and girls in rural communities.

1.8 Limitations of the study

The Country Study, being a desk review, contains information and data gleaned from the available secondary sources i.e. household surveys, studies, research, policy papers and education plans. The following are two examples of the out-of-school children study's limitations:

- There are information gaps, including lack of time series data or regular updates. In Sudan, EMIS is still in its early stages and there is no clear information management system that could provide data to inform and measure the indicator for out-of-school children study as per the study data tabulation plan. The collaboration between federal, state, locality and school levels needs to be intensified and their roles need to be more defined.

- There are no sufficient studies and research on the demand side, which would include the attitudes and practice of parents towards education. This data on perceptions and social norms should come from household surveys.

2 Profiles of excluded children

2.1 Data sources for out-of-school children

The study used multiple data sources to get a comprehensive situation analysis, as no single data source can provide a complete profile of out-of-school children in Sudan (who they are and where they are). The MoE in Sudan uses administrative data collected from schools annually and publishes an annual statistical book. This work has been recently strengthened by the current EMIS. Both administrative and household survey data were used in the Sudan OOSCI study. Household survey data were reviewed and used for in-depth analysis of the profiles of out-of-school children. Administrative data were also used to explore the characteristics of children at risk of dropping out. This analysis focuses on children who are in school and, thus, a school census can provide a more comprehensive picture than a household survey. Based on the coverage and reliability, the following data sources were used to inform and help measure out-of-school children indicators and characteristics:

- Education Management Information System (EMIS)
- Sudan Household Health Survey (SHHS), 2006 and 2010
- Sudan Fifth Population Census, 2008
- Sudan National Baseline Household Survey (NBHS), 2009

A combination of the above sources has enabled an analysis of profiles of out of school children and has provided a better understanding of enrolment and other trends in basic education in Sudan. These sources contribute to the existing education literature though they have some limitations. The SHHS is carried out every four to five years and the approval and dissemination of findings is a lengthy process. In the majority of sources, the sampling, analysis and disaggregation are limited by the purpose and the design of the survey, which are not usually exclusively focusing on out-of-school issues.

2.1.1 Education Management Information System

The EMIS centre of the MoE is responsible for the promotion and use of information within the MoE for policy, planning and implementation, decision-making, and monitoring and evaluation of the education system in Sudan.

EMIS has recently moved from a paper-based to a computerized system with support from UNICEF and the European Commission, as part of a project that also included training and capacity building at the federal, state, local and school levels.[8] All data is collected at the school level, entered into statewide databases by local officials, and

[8] UNICEF (2013) EMIS Capacity Development Project in Sudan. Final report to the European Commission. Khartoum: United Nations Children's Fund.

merged into a single file and cleaned at the Federal Ministry of Education. As part of the capacity development, the project checked the accuracy, completeness and consistency of key indicators from EMIS against manually compiled education censuses at the state level, previous school censuses and national household census data, finding a correspondence between the different data sources in most cases. Remedial action was taken in the case of states where data quality was poorer or where insufficient data had been collected due to inaccessibility.

Although the system is still new and significant difficulties persist in gathering quality up-to-date EMIS data, the quality and availability of data has improved since 2009. Data is collected annually from schools across the whole country. EMIS was chosen as the primary source of data on out-of-school children for this report. Disaggregation is possible by state, gender and age. Most of the data used is from 2010 (2009-2010 school year). The calculation of dropout rates (for Dimensions 4 and 5) are based on a comparison of enrolment and repetition numbers from the 2008/09 and 2009/10 school years as there was no recent clean and verified data available at the time of writing this report.

2.1.2 Sudan Household Health Survey, 2010

The Sudan Household Health Survey (SHHS) was conducted in 2010 by the Federal Ministry of Health and the Central Bureau of Statistics in partnership with United Nations agencies.[9] The SHHS methodology is based on UNICEF's Multiple Indicator Cluster Survey (MICS), adapted to Sudan's context and with elements added from the Pan Arab Project for Family Health (PAPFAM) as well as from food security and nutrition surveys.[10] SHHS provides key indicators on the situation of children and women. All 25 states of pre-secession Sudan were covered, but the data is available separately for South Sudan and post-secession Sudan. The targeted population for the SHHS included nomadic households camping at a particular location at the time of the survey; however, the nomadic populations living in institutions or group quarters were excluded. The SHHS uses a two-stage cluster sampling design within each state, with villages or urban quarters as the primary sampling units. The sampling frame was based on projections from the Fifth Population and Housing Census, 2008. In each state, 40 clusters were selected randomly with the probability of selection proportional to size, and 25 households were selected randomly within each cluster. Each state sample can be considered as self-weighting, but weights need to be applied for national-level estimates.

Limited information is available on the procedures for maintaining data quality in SHHS. Reliable data collection is likely to have been difficult in some conflict-affected and remote areas, but this affects all data sources in Sudan. Given that nomadic groups were only covered if they were camping at a particular location at the time of the survey, it is not clear if they were adequately sampled in the SHHS, and the questionnaire did not ask any questions relating to nomadic status, migration or displacement. However, data is available on state, rural/urban location, gender, age, entry into school and dropout, wealth, disability and pre-primary education. Consequently, the SHHS is used in this report for verifying estimates derived from EMIS data, to do the type of detailed disaggregation needed to profile out-of-school children, and for information gathering for some additional indicators not available in EMIS. Moreover, the SHHS estimate of educational participation using data on school attendance provides data that can be disaggregated according to household characteristics, allowing for a deeper analysis of disparities and inequities. It collects data on children who attend and do not attend school. This makes it possible to estimate the proportion of children who are out of school.

[9] NMH and CBS (2011) Sudan Household Health Survey. Second round 2010. Summary report. Khartoum: National Ministry of Health and Central Bureau of Statistics.

[10] GONU/GOSS (2007) Sudan Household Health Survey (SHHS) – 2006. Khartoum: Government of National Unity/Juba: Government of Southern Sudan.

2.1.3 Fifth Population and Housing Census, 2008

The Fifth Population Census 2008 was implemented as one of the stipulations of the 2005 Comprehensive Peace Agreement (CPA), by the Central Bureau of Statistics in the 15 northern states of pre-secession Sudan. The CPA recommended the use of the census results for power and wealth sharing in Sudan. The census was funded by the government, with donor support channelled through UNFPA. The UNFPA and other UN agencies also provided technical and logistical support. A Monitoring and Observers Committee (MOC) with international and national membership monitored the mapping, enumeration and data processing stages of the census. There were critics of the census, but the results were ultimately accepted by both the Sudanese government and their international partners.[11]

The census was planned to cover the entire population who spent census night in Sudan, including nationals, foreigners, nomadic groups, homeless people, refugees and displaced persons in camps. A short-form questionnaire with 10 questions covering basic demographic characteristics was administered to the entire population.[12] A longer questionnaire, including questions on migration, education and the labour force, was administered to a 10 per cent sample. The quality of the 2008 census data was examined using different analytical techniques for testing internal consistency and comparing it with the 1993 census. As in past censuses, the age distribution was found to be subject to the undercounting of children under the age of 5 and a preference for 'round number' ages ending in zero or five.[13] The 2008 census data is a basis for the annual projection of population data in Sudan. In this study, the 2008 data is used to verify the headline figures and for certain forms of disaggregation that are not otherwise possible, particularly on nomadic groups and child labour.

2.1.4 National Baseline Household Survey, 2009

The National Baseline Household Survey (NBHS) aimed to provide baseline information for Sudan's Poverty Eradication Strategy Paper (PESP). It uses the 2008 census and a preliminary count of households per enumeration area (EA) as its sampling frame. Some EAs were not covered because of security problems or because respondents refused to take part; the sample did not include nomadic populations, homeless people or residents of camps. A total sample of 528 households was drawn from each state, irrespective of size. Weights have to be applied at the state level to obtain representative estimates for the whole of northern Sudan. Data was collected during May-June 2009.[14]

The raw data was cleaned automatically based on criteria defining the possible age range for each level of education from primary to university. For persons aged 6 years and above, information was collected on literacy, grade attainment, grade repetition and vocational training. School attendance in the NBHS refers to full time participation in any regular educational institution, public or private, for systematic instruction at any level of education. Adult or short-term vocational training was not classified as school attendance. 'Currently attending' refers to all persons who are now attending formal educational institutions and include those who are temporarily absent from school or those on holiday. The NBHS includes Quran schools *(Khalwa)* as regular educational institutions.

[11] Kandeh, H. (2009) Planning and coordinating a census in a post-conflict situation. A case study of the 5th Sudan population and housing census. Khartoum: UNFPA Sudan Country Office.

[12] UN (2006) Census in Sudan. Paper prepared for the United Nations Workshop on the 2010 World Programme on Population and Housing Censuses, Maputo, Mozambique, 30 October – 2 November 2006.

[13] NAli, M.H., Mohamed, A.O., Ibrahim, S.M., and Elamin, F.M. (2011) Evaluation and adjustment of the 2008 census data. Khartoum: Central Bureau of Statistics.

[14] Central Bureau of Statistic. Sudan National Baseline Household Survey 2009. North Sudan – Tabulation Report. Khartoum: Central Bureau of Statistics.

2.2 The Five Dimensions of Exclusion in Sudan

This part of the profile chapter provides data on the scale of the out-of-school children problem in Sudan and highlights individual and household characteristics by creating statistical profiles for each group in the Five Dimensions of Exclusion. The overall purpose is to inform policy responses based on evidence to remove schooling barriers. Within the Five Dimensions of Exclusion framework, children are defined as being out of school if they are of official school age for pre-primary to lower secondary school (5-13 years), but are not attending formal school. Moreover, the methodology considered the overage and underage enrolment in each level of education. The profiles of out-of-school children are descriptive and do not reveal the cause of school exclusion which will be the focus of Chapter 3.

Estimates of the number of out-of-school children in Sudan vary from source to source, from administrative records to household survey. Much of the difference in estimates of out-of-school children numbers found in administrative records and household surveys can be explained by differences in the definitions used and age estimates. In Sudan, out of 7.9 million pre-school and basic school-aged children (5-13 years), 3 million are out of school. Of these, 1,611,450 are girls (52 per cent) *(see Table 2.1).*

Table 2.1 Summary of school age population in and out of school

Category	Total population (school age)	In school	Out of school
Children age 5 years	979,885	489,212	490,673
Children age 6-11 years	5,385,171	3,420,103	1,965,068
Children age 12-13 years	1,606,806	965,219	641,587
Total	**7,971,862**	**4,874,534**	**3,097,328**

Source: EMIS 2010, Ministry of Education.

When reviewing the different sources, it was clear that there was no one accurate figure for out-of-school children. The number of out-of-school children from household survey data analysis, census and administrative data indicate the range of numbers of out-of-school children in Sudan. Arriving at the exact number of out-of school children was challenging due to continuous conflict, the independence of South Sudan, mass population displacement and a lack of recent data. The estimate of the proportion and number of children out of school varies across the four main sources of data used in this report *(see Table 2.2)*. The proportion of out-of-school children at primary age varies from 38 per cent (population census, 2008) to 42.6 per cent (NBHS, 2009). At lower secondary age the proportion varies from 40 per cent (EMIS) to 50.5 (NBHS). Globally, estimates of the number of out-of-school children based on household survey data tend to be lower than those based on EMIS data. In Sudan, the reverse is the case. This may reflect the difficulty in covering nomadic groups and children living in conflict-affected areas, whose school attendance is usually very low according to household surveys in Sudan.

Table 2.2 Out-of-school children indicators by source

Dimension	Population census (2008)			NBHS (2009)	EMIS (2010)	SHHS (2010)
	Total	Excluding nomads	Nomads			
Dimension 1: Not in pre-primary or primary (% of 5 year olds)					50.1	60.6
Dimension 2: Not in primary or lower secondary (% of 6-11 year olds)	38.2	46.7	85.5	42.6	36.5	38.7
Dimension 3: Not in primary or lower secondary (% of 12-13 year olds)	33.0	43.9	87.9	50.5	39.9	20.0
Dimension 1: Not in pre-primary or primary (number of 5 year olds)					490,673	621,623
Dimension 2: Not in primary or lower secondary (number of 6-11 year olds)	2,603,248	2,133,879	469,369	1,993,002	1,965,068	2,032,991
Dimension 3: Not in primary or lower secondary (number of 12-13 year olds)	781,772	647,366	134,407	785,201	641,587	333,795
Total number of 5 year olds	1,003,093	902,892	100,201	956,190	979,885	1,026,207
Total number of 6-11 year olds	5,121,092	4,572,410	548,681	4,673,271	5,385,171	5,253,762
Total number of 12-13 year olds	1,628,332	1,475,457	152,875	1,553,506	1,606,806	1,666,359
Total number of school age children (5-13)	**7,752,517**	**6,950,760**	**801,757**	**7,182,967**	**7,971,862**	**7,946,328**

Source: EMIS, 2008 census, NBHS and SHHS 2010.

The majority of out-of-school children, nearly 2 million, are aged 6-11 years *(see Table 2.2)*. This group represents Dimension 2 in the Five Dimensions of Exclusion framework. At lower secondary age, an even higher proportion of children are out of school at 39.9 per cent (42.3 per cent girls), adding a further 641,000 children who are out of school. Enrolment at age 5 is even lower. Only half of five-year-olds are enrolled in pre-primary or primary school. This would add another 490,000 to the total number of out-of-school children. The total number of those who are at risk to dropping out is more than 560,000, there is also a large gender disparity, with 318,026 girls at risk of dropping out compared to 242,939 boys *(see Table 2.3)*. Therefore, large numbers of children are either out of school or at risk of becoming out of school in Sudan.

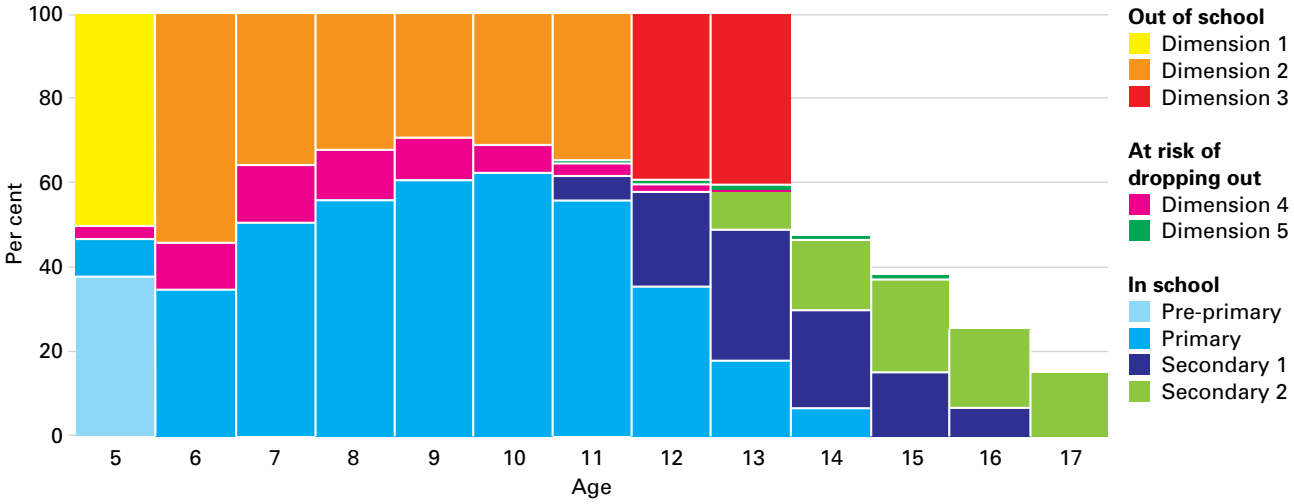
Table 2.3 Summary of out-of-school children through the Five Dimensions of Exclusion

	Girls		Boys		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
Out of school children						
Dimension 1: Children 5 years old (pre-primary)	241,944	50.3	248,729	49.8	490,673	50.1
Dimension 2: Children 6 to 11 years old (primary)	1,040,560	39.6	924,508	33.5	1,965,068	36.5
Dimension 3: Children 12 to 13 years old (lower secondary)	328,946	42.3	312,641	37.7	641,587	39.9
Total out of school children (5-13 years old)	**1,611,450**		**1,485,878**		**3,097,328**	
Children incurring a risk of dropping out						
Dimension 4: Children enrolled in primary	310,086	19.2	220,679	12.0	530,765	15.4
Dimension 5: Children enrolled in lower secondary	7,940	3.9	22,260	8.3	30,200	6.4
Total children at risk of dropping out	**318,026**		**242,939**		**560,965**	

Source: EMIS 2009 and 2010.

The analysis of enrolment versus exclusion shows that school enrolment is particularly low at ages 5 and 6, and beyond age 14. It peaks around age 9, but even at this age 30 per cent of children remain out of school *(see Figure 2.1)*. Enrolment rapidly trails off beyond this age as children drop out. Some 12 per cent of children 6 and 7 years old are included in Dimension 4, meaning that they are currently in school but likely to leave school before reaching the final primary grade.

Figure 2.1 Enrolment and exclusion by age



Source: EMIS 2010.

Many of the children who are in school are not in an appropriate grade for their age, which is an additional risk factor for dropping out. These children are also occupying available spaces for other children, who may be excluded as a result. The proportion of out-of-school children of primary school age (6-11 years) ranges between 54 per cent at age 6 and 29.5 per cent at age 9; lower secondary is higher – 40.5 per cent at age 15 compared to 34.7 per cent at age 11 *(see Table 2.4)*. A small number (12 per cent) of five-year-olds seems to be starting primary school prematurely. However, a larger

Table 2.4 Enrolment by level of school and age

Age	Pre-primary	Primary	Secondary 1	Secondary 2	Secondary 3
5	37.8%	12.1%			50.1%
6		45.8%			54.2%
7		64.2%			35.8%
8		67.9%			32.1%
9		70.5%			29.5%
10		69.0%			31.0%
11		58.9%	6.4%		34.7%
12		36.8%	23.9%		39.4%
13		18.2%	32.1%	9.2%	40.5%
14		6.8%	23.8%	16.8%	
15			15.7%	22.4%	
16			6.8%	18.8%	
17				15.1%	

Source: EMIS 2010.

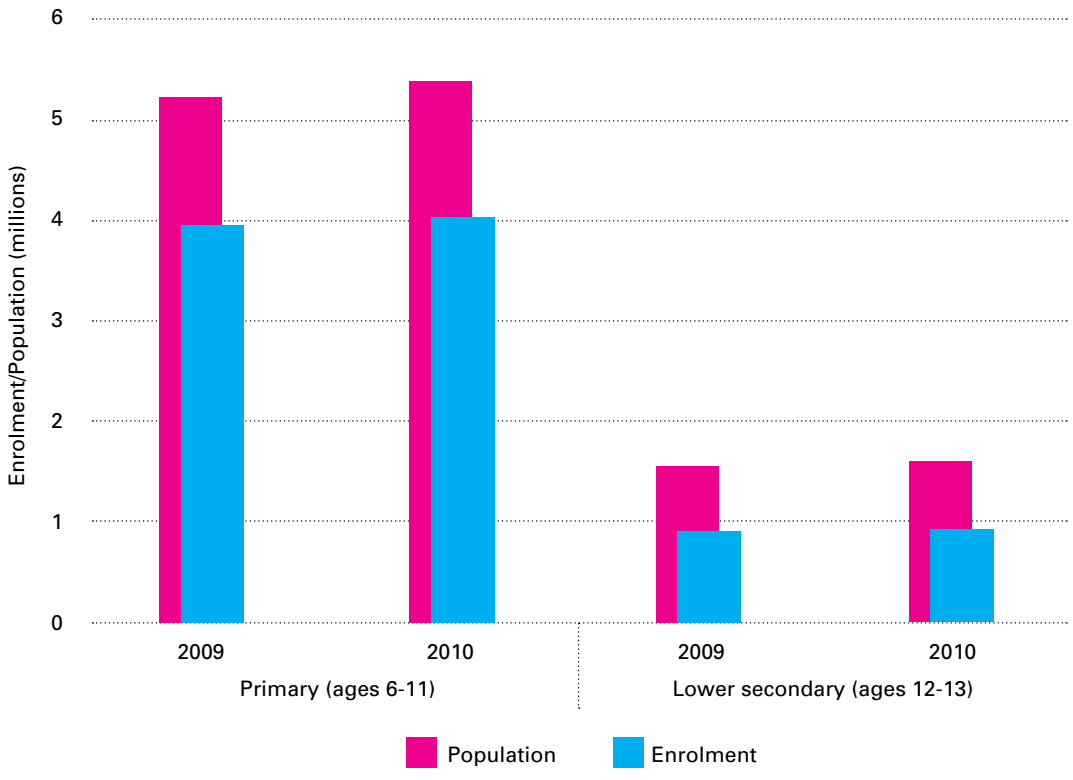
number lags behind the expected grade for their age, due to late entry into primary school and repetition. Most 12- and 13-year-old children who are in school are still in primary grades when they should be in lower secondary; and nearly half of the children in lower secondary grades are older than the official age range of 12-13. Global research demonstrates that children who start school younger than the official school age tend to benefit less from educational activities. Their school readiness is lower, resulting in poor academic performance and a higher risk of dropping out. Similarly overage students are more likely to repeat grades and to drop out of school before completing the education cycle.

Data limitations make it difficult to assess change over time when collating population and education enrolment data, with the exception of drawing comparisons between the 2008-09 and 2009-10 school years. Primary and lower secondary enrolments increased slightly during this period, but for primary grades, enrolments only rose by around 1 per cent. The population of 6- to 11-year olds was projected to increase by around 3 per cent *(see Figure 2.2).* It should be noted that the enrolment numbers shown include children who are overage and underage for their grade.

Since the data from the three sources differ in time and in methods, a comparison and verification of reliable data constitutes a difficult task. It is necessary to take into account that the SHHS and NBHS are household surveys and EMIS is an administrative source. Household surveys are often more reliable sources of data on the effective rate of schooling coverage, because they are not affected by multi-cohort effects or measurement errors in the school census or population data. To improve the measurement of access and retention, it is helpful to compare administrative enrolment data with other sources of data. This finding underlines the need to improve data on school enrolments, a process that is under way with the implementation of a comprehensive EMIS.

The following sections explore each of the Five Dimensions of Exclusion in more depth to build up profiles of those children excluded and at risk of leaving school.

Figure 2.2 Change in population and enrolments between 2009 and 2010



Source: EMIS 2009, 2010.

2.3 Profile of out-of-school children in Dimension 1

Children of pre-primary school age who are not in pre-primary or primary education correspond to the Dimension 1 of the Five Dimensions of Exclusion framework. The importance of pre-school attendance in a child's preparation for primary education and for better learning achievement makes it critical for education policy makers to understand the profiles of pre-school age children who are out of school.

Dimension 1 represents a group of children who do not benefit from pre-primary education and who may not be adequately prepared for primary education. They may be at risk of not enrolling in primary education or at risk of dropping out. Although pre-primary education programmes in Sudan are for two years, the Five Dimensions of Exclusion framework proposes a standard approach for all countries by focusing on children in the year preceding the official entrance age into primary school, which is at age 5 in Sudan. This is done in the interest of simplicity and to allow cross-national comparisons. The official primary entrance age in Sudan is 6 years old; therefore Dimension 1 includes children aged 5 years who are not in pre-primary or primary education. Children aged 5 who attend Quranic *(Khalwa)* schools are treated as being in school, although some of these may not be covered in administrative data.

About half of all five-year-olds in Sudan were attending either pre-primary or primary education *(see Tables 2.2 and 2.3)*, leaving nearly 500,000 children of this age group out of school. These children have missed the opportunity to attend pre-school at the appropriate age. Household wealth and place of residence (rural versus urban) affect child participation in pre-school *(see Table 2.5)*. Household Survey 2010 data shows that the children who are not in pre-school are largely from the poorest wealth quintiles and from rural areas. There is no apparent gender disparity in this dimension. In the poorest households, over three quarters of five-year olds are not in school, which means that pre-school aged children from the poorest quintile of households are five times more likely to be out of school than their peers in the richest quintile. The majority of those who are pre-school age and attending primary education are from the richest households (51.5 per cent) compared to 10.3 per cent from the poorest.

It is evident that there is a correlation between rural and urban locations regarding exclusion from pre-school attendance. Pre-school aged children who live in rural areas have a non-attendance rate that is 29.5 percentage points higher than their peers in urban areas. Among urban children 54.9 per cent are attending either pre-primary or primary education, while only 33.1 per cent of rural children are attending. For nomadic populations, the only education data source is the Population Census of 2008, which is limited to children 6 years of age and over. The majority of nomadic children are excluded from pre-schooling due to the lack of pre-school services in nomadic areas.

States differentials were also found to be very significant. The percentage of children attending Grade 1, who had attended pre-school in the previous year, was approximately six times more in Khartoum (74.1 per cent) than in West Darfur (12.7 per cent).[15] This represents around a 71 percentage-point gap in rates of pre-school exclusion between the lowest (Khartoum at 16 per cent) and the highest rates (West Darfur at 87 per cent). In general, the high proportion of out-of-school children in Dimension 1 is in Darfur states, Kordofan states and the Blue Nile, where access to pre-schooling is very limited.

[15] Sudan Household Health Survey 2010, Ministry of Health Sudan.

Table 2.5 Per cent of pre-primary age children who are not in pre-primary or primary education by sex and other characteristics (Dimension 1)

		In pre-primary (%)	In primary (%)	In *Khalwa* (%)	Not in school (Dimension 1) (%)
Male					
		21.1	21.9	2.5	54.5
Residence	Urban	30.7	36.5	0.8	32.1
	Rural	17.6	16.5	3.1	62.7
Wealth quintile	Poorest	9.7	11.5	3.8	75.1
	Second	8.4	9.9	3.9	77.9
	Middle	22.9	16.8	2.5	57.9
	Fourth	43.5	26.8	1.3	28.4
	Richest	29.1	55.8	0.0	15.1
Female					
		20.2	19.9	2.1	57.8
Residence	Urban	29.1	33.4	0.5	37.1
	Rural	17.0	15.0	2.7	65.4
Wealth quintile	Poorest	9.9	9.1	2.0	79.0
	Second	8.5	12.9	3.0	75.7
	Middle	25.2	15.0	3.6	56.2
	Fourth	35.3	31.6	0.6	32.5
	Richest	32.4	46.0	0.0	21.6
Total					
		20.7	20.9	2.3	56.1
Residence	Urban	29.9	35.0	0.6	34.5
	Rural	17.3	15.8	2.9	64.0
Wealth quintile	Poorest	9.8	10.3	2.9	77.0
	Second	8.5	11.4	3.4	76.8
	Middle	24.0	15.9	3.0	57.0
	Fourth	39.6	29.1	1.0	30.3
	Richest	30.6	51.5	0.0	18.0

Source: Sudan Household Health Survey 2010.

2.4 Profile of out-of-school children in Dimension 2

This section provides data on primary school age children (6-11 years) who should officially be in primary education but who are not. In the Five Dimensions of Exclusion framework, children of primary school age (6-11 years) who are not attending school are in Dimension 2. The section focuses in particular on the profiles of the largest groups of out-of-school children in the country, their location (urban/rural), gender and other demographic features among and within the states. It will examine exclusion rates, absolute number and characteristics of the excluded children, using data from EMIS, household surveys and population censuses.

Close to 2 million or 36.5 per cent of primary school age children (6-11 years) are out of school (33.5 per cent of boys and 39.6 per cent of girls), demonstrating that school exclusion is a significant problem in this dimension *(see Table 2.6)*. There are more girls out of school than boys. In fact, the disadvantage facing girls is even more serious as there are also fewer girls than boys attending school. There is a gender disparity for Sudan as a whole, with a gender gap of about 4.5 percentage points in those who are out of school. The gender gap is particularly pronounced in West Darfur and Kassala states, where more than half of girls are out of school at primary age, as well as in Sinnar, South Kordofan, and South Darfur. Girls from the poorest quintile are also particularly over-represented in Dimension 2. Of this group, 57 per cent are out of school compared to 47.8 boys, indicating a gender gap of 9.2 percentage points among the poorest families.

Table 2.6 Education status of primary school age children

	Male		Female		Total	
	Per cent	Number	Per cent	Number	Per cent	Number
Total population aged 6-11		2,756,505		2,628,666		5,385,171
In primary school	65.4	1,802,762	59.5	1,563,579	62.5	3,366,341
In lower secondary school	1.1	29,235	0.9	24,527	1.0	53,762
Out of school (Dimension 2)	33.5	924,508	39.6	1,040,560	36.5	**1,965,068**

Source: EMIS, 2010.

The out-of-school children at primary school age are mostly, though not exclusively, living in rural areas and from the two poorest wealth quintiles *(see Table 2.7).* There are clear disparities in rates of exclusion for primary school-aged children by wealth quintile. The data show a negative correlation between the proportion of out-of-school children and family wealth status. While the proportion of out-of-school children at primary school age stands at 52.4 per cent among the poorest households, it is only 3.6 per cent among the richest households. There is also a gap in rates of school exclusion between urban and rural areas in this dimension. Rural primary school-aged children are more likely to be out-of-school than their urban counterparts as evident *(see Table 2.7).*

Exclusion rates for children in Dimension 2 also show regional variation between states in Sudan. The highest proportions of children in Dimension 2 can be found in the Blue Nile, West Darfur, Kassala and South Darfur states. The rates of exclusion of primary school-age children range from 46.8 per cent in Blue Nile and 45.7 per cent in West Darfur, to 7.9 per cent in the Northern state and 9.9 per cent in Khartoum. Out of 15 states, eight states have exclusion rates higher that the national average of 29.8 per cent. The data also show comparatively higher proportions of out-of-school children in war-affected states, where the exclusion rates vary from 46.8 per cent in the Blue Nile state to 37.1 per cent in South Kordofan, and all higher than the national average.

Table 2.7 Per cent of primary school age children who are out of school, disaggregated by gender, residence, wealth and state

	Male (%)	Female (%)	Total (%)
Residence			
Urban	13.6	13.8	13.7
Rural	33.1	39.2	36.1
Wealth			
Poorest	47.8	57.0	52.4
Second	39.7	44.6	42.0
Middle	24.7	30.2	27.4
Fourth	10.1	9.9	10.0
Richest	3.1	4.1	3.6
State			
Northern	7.9	7.9	7.9
River Nile	15.6	15.8	15.7
Red Sea	33.8	24.3	29.4
Kassala	38.8	52.6	45.1
Gedarif	35.9	39.2	37.5
Khartoum	8.7	11.2	9.9
Gezira	17.1	19.7	18.4
White Nile	24.9	22.6	23.8
Sinnar	30.8	38.7	34.8
Blue Nile	46.3	47.2	46.8
North Kordofan	32.6	33.7	33.2
South Kordofan	33.2	40.7	37.1
North Darfur	25.6	30.6	28.1
West Darfur	39.2	52.8	45.7
South Darfur	37.9	45.2	41.7
Total	**27.6**	**32.1**	**29.8**

Source: Household Health Survey 2010.

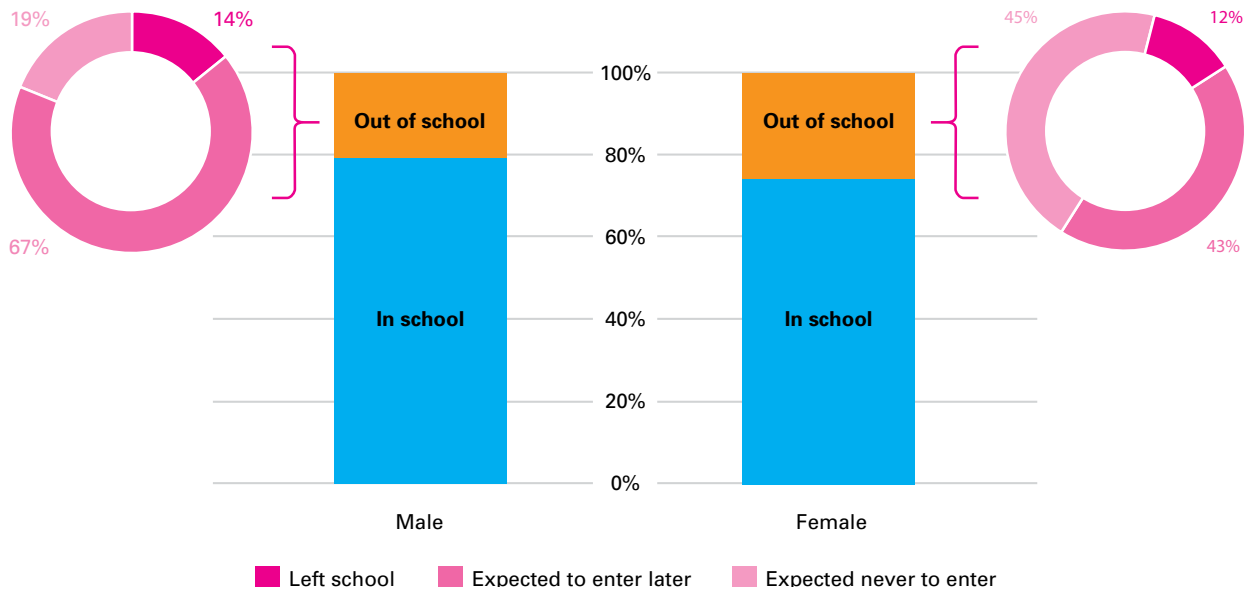
Out-of-school children have different levels of school exposure. Some of them entered school in the past and dropped out, others have never entered school and some may still enter school late. The SHHS 2010 results showed that 27.6 per cent of boys and 32.1 per cent of girls at primary school age are out of school. Of these, 13 per cent have already been in school but left *(see Table 2.6 and Figure 2.3).* Around half are likely to enter school later by age 17 (an estimate based on the rates of school intake among older children and the behaviour of previous cohorts of children using household survey data). Amongst those likely to enter school late there is a large gender difference. About 67 per cent of out-of-school boys and 43.6 per cent of out-of-school girls are likely to enter school late. The education system has a serious problem with high dropout rates, coupled with late entry and a significant number of children with no exposure to school at all.

Table 2.8 School exposure of primary-age out-of-school children by sex

	Male (%)	Female (%)	Total (%)
Left school	14.2	11.8	12.9
Likely to enter school in the future	67.0	43.6	52.7
Likely to never enter school	18.9	44.7	34.4

Source: Population Projections for 2010; SHHS.

Figure 2.3 Proportion of children who are out of school and their school exposure, by sex



Source: Population Projections for 2010; SHHS 2010.

Children with disabilities are among those excluded from primary education. Very limited information on the education of children with disabilities was found in the different sources used in this study. The SHHS 2010 records disability status for children aged 2-9 years old, indicating that children with disabilities are much more likely to be out of primary school than children without disabilities *(see Table 2.9)*. Girls with disabilities are particularly disadvantaged; 55 per cent are out of school in the 6-9 years age range compared to 45 per cent boys.

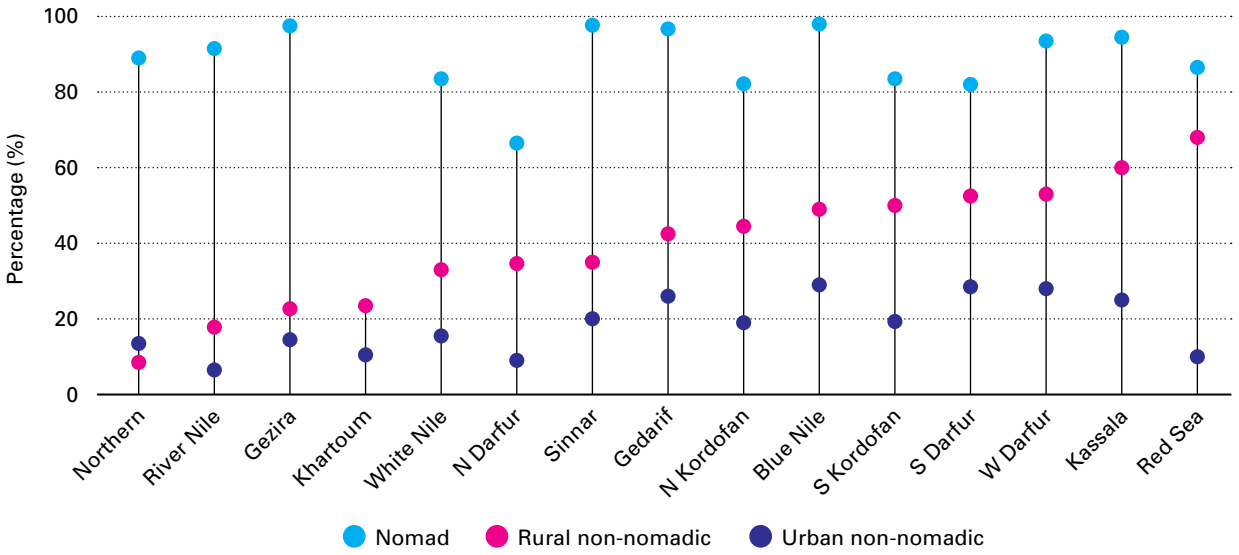
Table 2.9 Per cent of 6-9 year olds who are out of school, by disability status and gender

Description	Male (%)	Female (%)	Total (%)
With a disability	45.0	55.1	49.0
Without a disability	35.5	38.7	37.1

Source: Sudan Household Health Survey 2010.

School exclusion constitutes a much more significant problem among nomadic children. Analysis of population census data indicates that an estimated 431,507 nomadic children aged 6-11 years are out of school, resulting in an 82.9 per cent exclusion rate. In absolute terms, this figure represents 22 per cent of the total of out-of-school children in Dimension 2. The comparison of the exclusion rate between urban, rural and nomadic children from primary education illustrates the vulnerability of nomadic children *(see Figure 2.4)*. It is clear that in some states close to 100 per cent of nomadic children are out of school. Further analysis will be provided on the exclusion of nomadic children from education.

Figure 2.4 Per cent of primary-aged children who are out of school by state and nomadic/rural/urban group



Source: Population Census, 2008.

Child labour also appears to be an important aspect of the profile of children in Dimension 2. Almost 20 per cent of children aged 10-12 years were found to be working, and among these children three quarters were out of school.[16] It is worth highlighting at this point that children 10-12 years old is an appropriate age range because these children were aged 9-11 at the beginning of the 2008-2009 school year. Data on employment status was not available for children aged younger than 10 years old. Profiles of child labourers will be discussed in section 2.1.6.

Table 2.10 Percentage of 10-12 year olds who are out of school, by employment and gender

	Male (%)	Female (%)	Total (%)
Inactive/unemployed	24.3	30.5	**27.3**
Employed	76.9	74.3	**76.0**
Total	**32.2**	**34.7**	**33.4**

Source: Population Census, 2008

[16] Labour force survey 2011, Ministry of human resource development and labour, Sudan.

2.5 Profile of out-of-school children in Dimension 3

Dimension 3 is defined as children of lower secondary age (12-13 years) who are out of school. Findings show that 641,000 children at lower secondary education school age are out of school, representing 21 per cent of the total out-of-school children in Sudan (5-13 years) *(see Table 2.11)*. In this Dimension, girls are less likely to be attending school. About 37.7 per cent of boys and 42.3 per cent of girls are out of school at age 12-13 years. Of the children who are in school, around half are still enrolled overage in primary grades, while the remaining half are in lower secondary grades.

Table 2.11 Education status of lower secondary school age children

	Male		Female		Total	
Population age 12-13 (number)	828,385		778,421		1,606,806	
	Per cent	Number	Per cent	Number	Per cent	Number
In primary school	29.2	241,899	26.0	202,016	27.6	443,915
In lower secondary school	28.6	237,156	27.1	211,298	27.9	448,454
In upper secondary school	4.4	36,689	4.6	36,161	4.5	72,850
Out of school (Dimension 3)	37.7	312,641	42.3	328,946	39.9	**641,587**

Source: EMIS 2010.

In Dimension 3, there is a small proportion of children likely to enter school in the future and a large proportion that has left school and is likely to never re-enter *(see Table 2.12)*. By the age of 12 to 13, girls without any previous school exposure are much less likely to enter school than boys. In some cases boys are entering primary school at a very late age, and consequently 21.6 per cent of boys who are out of school at this age are still likely to enter in the future, compared to only 5.5 per cent of girls. A high number of out-of-school children at this age (55 per cent of boys and 39 per cent of girls) have already spent time in school and have left school. An estimated 23 per cent of boys and 55.9 per cent of girls who are currently out of school are likely to never enter school. This sub-group includes large numbers of children from urban, rural, nomadic, internally displaced persons and other social groups who have different education needs, requiring targeted policy response.

Table 2.12 School exposure of lower secondary school age out-of-school children by sex

	Male (%)	Female (%)	Total (%)
Dropped out	55.4	38.6	**45.4**
Likely to enter in the future	21.6	5.5	**11.4**
Likely to never enter	23.0	55.9	**43.2**

Source: Population Projections for 2010; SHHS 2010.

The patterns of exclusion for children in Dimension 3 are similar to those faced by the primary school-age group. Children from rural areas are more likely to be out of school than children from urban areas by 16.8 percentage points *(see Table 2.13)*. Within both rural and urban groups, girls are more disadvantaged. Similarly, children from the poorest quintile of households in Dimension 3 show rates of non-attendance that are about 38.7 percentage points higher than those children from the richest quintile. In terms of geographical exclusion, the high proportion of out-of-school children appears in Kassala, West Darfur, Gedarif, Red Sea, Blue Nile, South Kordofan, Sennar, South Darfur and North Kordofan. In these locations reported exclusion rates ranging between 43 per cent and 26.4 per cent, which is higher than the average rate of 23.4 per cent. Girls are over-represented in exclusion rates across all the states.

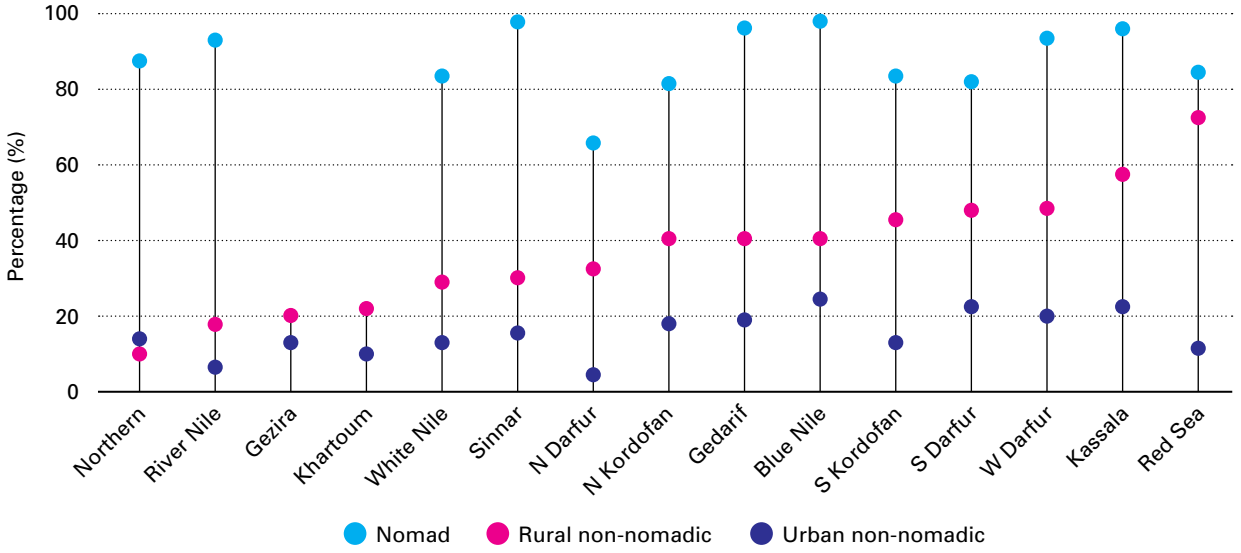
Table 2.13 Per cent of lower secondary school age children who are out of school, disaggregated by gender, residence, wealth and state

	Male (%)	Female (%)	Total (%)
Residence			
Urban	11.6	12.0	11.8
Rural	24.3	32.5	28.6
Wealth			
Poorest	32.3	50.6	42.2
Second	32.3	41.0	36.7
Middle	21.9	24.9	23.5
Fourth	10.7	13.6	12.2
Richest	5.0	1.9	3.4
State			
Northern	10.2	9.2	9.7
River Nile	19.2	21.6	20.5
Red Sea	34.6	35.4	35.0
Kassala	40.2	46.2	43.0
Gedarif	20.9	46.7	34.4
Khartoum	11.5	8.1	9.8
Gezira	15.6	15.0	15.3
White Nile	17.0	22.9	20.0
Sinnar	23.3	34.4	29.4
Blue Nile	34.5	32.9	33.6
North Kordofan	23.7	29.0	26.4
South Kordofan	25.9	33.7	30.2
North Darfur	11.2	18.9	15.8
West Darfur	26.0	46.5	36.4
South Darfur	18.1	37.3	27.9
Total	**20.3**	**26.3**	**23.4**

Source: Sudan Household Health Survey 2010.

Examining the proportions in Dimension 3 by state disaggregated into rural, urban and nomadic households *(see Figure 2.5)* reveals a very similar pattern to Dimension 2. Once again, very high proportions of nomadic children are out of school. Thus nomadic primary and low secondary school-aged children have much higher rates of exclusion than urban and rural children.

Figure 2.5 Percentage of lower secondary-aged children who are out of school by state and nomadic/rural/urban group



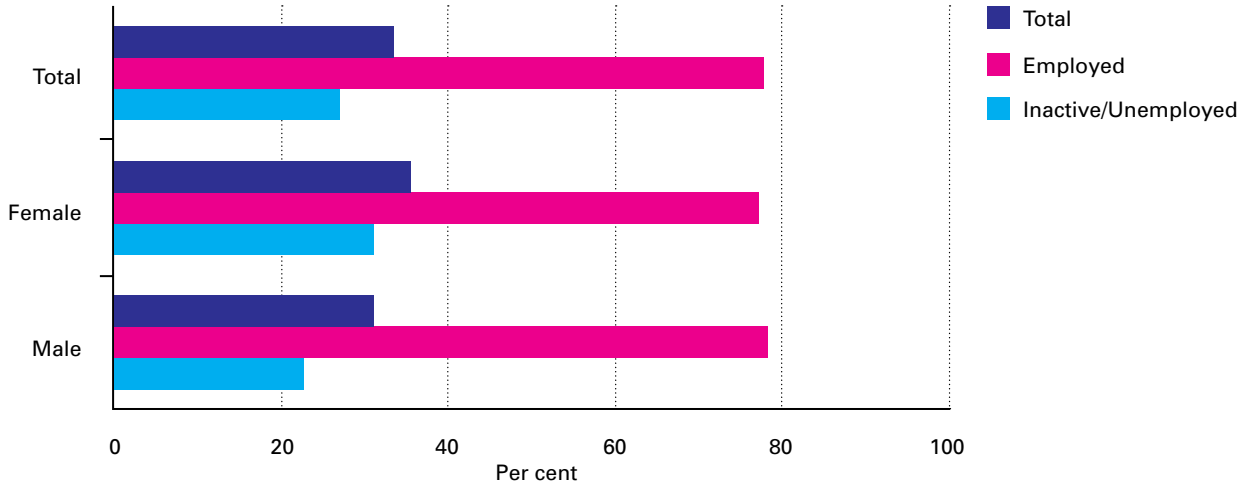
In this dimension there is a high proportion of children who are doubly disadvantaged; children who are working as well as excluded from school. Around 20 per cent of children at lower secondary age were working. Similar to the result for primary school-aged children, around three quarters of these working children are out of school. It is important to highlight that the available data are for an older group of children (13-14 years) who are likely to face higher opportunity costs associated with school attendance, given the prevalence of poverty in Sudan and the potential loss of earnings *(see Table 2.14).*

Table 2.14 Per cent of 13-14 year olds who are out of school, by employment and gender

	Male (%)	Female (%)	Total (%)
Inactive/unemployed	22.3	30.9	**26.5**
Employed	77.7	77.0	**77.5**
Total	**31.1**	**35.2**	**33.0**

Source: Population Census 2008.

Figure 2.6 Per cent of 13-14 year olds who are out of school, by employment and gender



Source: Population Census 2008.

2.6 Profiles of children at risk and out of school in Dimensions 4 and 5

All children attending school in Sudan have some probability of dropping out. Dimensions 4 and 5 cover children in primary and lower secondary school education who are at risk of dropping out of school. This section estimates the proportion and characteristics of this group of children.

Out-of-school data indicates that more than 530,000 children were in school attending primary grades in 2010 but were likely to drop out before reaching the final grade (calculation based on a projection using past dropout rates) *(see Table 2.3)*. This amounts to 19.2 per cent of girls and 12 per cent of boys in primary school. An additional 30,000 children were in lower secondary grades but were likely to drop out before completing the lower secondary education cycle (3.9 per cent of girls and 8.3 per cent of boys). The main factors associated with dropping out of school include: exclusion from pre-primary education, late entrance, and inefficiencies within the education system.

Non-attendance of pre-primary education was found to be a major risk factor for children dropping out across Sudan. A small proportion of the children entering primary school had previously been to pre-primary school. After having completed pre-schooling (pre-primary education) 42.9 per cent of pupils in Grade 1 gained admission to primary school. Khartoum state ranks first (74 per cent) followed by Northern (72 per cent) and Gezira (66 per cent) in the number of children attending pre-primary education. The other states range from 25 per cent to 53 per cent.[17] The majority of those who had exposure to pre-primary education were from urban areas and among the richest wealth quintile *(see Table 2.15)*. Nomadic children generally have no pre-school experience, which suggests that this group may be particularly susceptible to dropping out.

Table 2.15 Percentage of new entrants to primary education without pre-primary education, by sex, urban/rural and wealth

	Male (%)	Female (%)	Total (%)
Residence			
Urban	91.2	90.1	90.7
Rural	93.4	93.8	93.6
Wealth			
Poorest	96.8	96.2	96.5
Second	95.4	94.1	94.8
Middle	92.6	92.7	92.7
Fourth	90.6	90.1	90.3
Richest	88.8	91.0	89.9
Total	**92.6**	**92.5**	**92.6**

Source: Sudan Household Health Survey 2010.

[17] The Baseline Survey on Basic Education in Sudan 2008, MoE.

A second widely recognized risk factor is whether children are overage for their grade. Estimates based on the SHHS 2010 data reveal a wide range of ages in each grade. In primary grades, around one third of children were two years or more above the expected age for their grade, while in lower secondary grades the 37 per cent were overage *(see Table 2.16)*. The education baseline survey found that girls tend to drop out when they reach puberty. Therefore, the earlier they enrol the greater the chance of them completing the basic cycle. A small proportion of overage children complete the basic education cycle, while the majority of them drop out mid-way. There is a need to understand the factors that account for late enrolment in order to devise appropriate policies.

Table 2.16 Per cent of children in primary and lower secondary education who are two or more years overage for their grade, by sex

	Primary grades			Lower secondary grades		
	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)
Underage	24.8	26.4	25.5	20.9	26.5	23.5
Official age	18.1	21.2	19.6	18.9	23.1	20.9
Official age + 1 year	22.0	21.8	21.9	18.1	18.6	18.4
Overage (2 or more years)	35.1	30.6	33.0	42.2	31.8	37.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Sudan Household Health Survey 2010.

The third risk factor is associated with the efficiently of the education system. The efficiency of the education system is measured by rates of promotion, repetition and drop out calculated using "Reconstructed Cohort Analysis" method *(see Table 2.17)*.[18] The education policy in Sudan is that children should be promoted automatically until they reach Grade 4. Thereafter, two chances should be given for repetition for the remaining grades. The data shows that the rate of promotion is significantly high in all grades. The average rate of promotion for Grade 1 to Grade 4 for both sexes is 90.4 per cent, while the dropout rate is 7.6 per cent. The repetition rate is low, at 2.1 per cent. The findings of the baseline survey on basic education also show that the average dropout rate for primary school classes (Grades 1 to 6) is higher among girls than among boys (8.1 per cent for girls; 7.1 per cent for boys). Almost the same trend is observable at the lower secondary level. At primary school, the middle of the cycle (transition from Grade 4 to 5) appears to be a stage where extremely high dropout rates occur (11.4 per cent). The highest dropout rate among boys is in Grades 6 and 7 (14.5 per cent and 13.3 per cent, respectively), while the highest dropout rate for girls is in Grade 4 (13.3 per cent).

It is also clear that the survival rate decreases in upper grades and it is higher in primary education than in lower secondary *(see Table 2.17)*. The survival rates provide information on the cumulative dropout of cohort students over a cycle of schooling, thus providing information about the efficiency of the system. There is no available data disaggregated by geographic or urban/rural areas to understand the characteristics of the children who drop out during primary education or low secondary cycle.

[18] The baseline Survey on Basic Education in Sudan, MoE.

Table 2.17 Promotion, repetition and dropout by grade and sex in primary and lower secondary

Items/rate	Grade 1 (%)	Grade 2 (%)	Grade 3 (%)	Grade 4 (%)	Grade 5 (%)	Grade 6 (%)	Grade 7 (%)	Grade 8 (%)	Average from Grade 1 to 5
Promotion rate	94.6	94.6	89.9	85.9	93.2	93.4	93.2	92.4	**90.4**
Repetition rate	1.2	1.5	1.6	2.6	3.8	3.6	3.8	4.6	**2.1**
Dropout	4.1	3.8	8.4	11.4	3.0	3.0	3.0	3.0	**6.7**
Survival rate	100	95.8	92.1	84.2	74.3	72	69.8	67.6	

Source: The Baseline Survey on Basic Education in Sudan, 2008.

2.6.1. Out-of-school children and child labour

The relationship between child labour and school attendance is evident in the research. This concerns out-of-school children involved in child labour as well as children working while they are attending school. This section highlights the proportion of out-of-school children engaged in work and their household characteristics.

In 2011, the Ministry of Human Resources, Development and Force conducted a study[19] that correlates child labour with the issue of out-of-school children. Some relevant findings of this study are presented here to profile the intersection of child labour with school attendance. It is clear that children who are working are less likely to attend school and more likely to drop out. This pattern can trap children in a cycle of poverty and disadvantage. Working conditions for children are often unregulated with few safeguards against potential abuse. Many types of work are intrinsically hazardous, such as exposure to pesticides in agricultural work, carrying heavy weights and scavenging in garbage dumps. Wage labour and work within the family are considered one of the main bottlenecks threatening the education of children and pose a risk to those attending school.

The Labour Force Survey 2011, reported on the child labour situation among children aged 10-14 years old, though it does not fit within the basic school age group of 6-13 years old in Sudan. Data show that 88.6 per cent of children aged 10-14 years are out of school (280,415 children) *(see Table 2.18)*. Of the out-of-school children aged 10-14, 69 per cent in urban areas and 89.9 per cent in rural areas are economically active. Children aged 10-14 who are attending school and are also economically active, account for 11.4 per cent, with significant differences between urban (31 per cent) and rural areas (10 per cent). The survey classified children aged 10-14 years into three categories: (1) employed (11.7 per cent); (2) having worked before and seeking work (12.1 per cent); and (3) first time job seekers for (9.9 per cent).

More than 88 per cent of the children out of school aged 10-14 years are engaged in child labour, signifying that children excluded from school are more likely to be exposed to this risk. Out-of-school children in rural areas are more likely to be engaged in child labour than their peers in urban area. By contrast, school attending children in urban areas are more likely to be engaged in child labour than rural children. This may be due to the availability of work opportunities in urban areas. It is also important to note that, for children who are out of school, the chances of being a child labourer increase with age. Younger working children are far less likely to be attending school than their non-working counterparts.

[19] Labour force survey 2011, Ministry of human resource development and labour, Sudan.

The overall rate of out-of-school children between 10-14 years is 88.3 per cent. In the three categories (employed, worked before and first time job seekers) it is quite apparent that child labour is one of the main bottlenecks for children attending school. In most cases this is due to household poverty and the high cost of education.[20]

Table 2.18 Economically active children (10-14 years) by school attendance

	School attendance								
	%	Currently attending	%	Previously attended	%	Never attended	% out of school	Out of school	Total
Residence									
Urban	31.0	6,448	50.0	10,410	19.1	3,968	69.0	14,379	20,826
Rural	10.1	29,761	20.9	61,830	69.0	204,207	89.9	266,036	295,798
Age									
10	12.8	8,701	8.1	5,522	79.0	53,665	87.2	59,187	67,887
11	13.5	4,218	12.2	3,828	74.3	23,274	86.5	27,102	31,320
12	12.3	10,043	22.6	18,517	65.1	53,362	87.7	71,879	81,922
13	12.7	7,088	33.1	18,473	54.2	30,274	87.3	48,747	55,835
14	7.7	6,160	32.5	25,900	59.8	47,600	92.3	73,500	79,660
Labour force									
Employed	11.7	26,602	21.8	49,731	66.5	151,863	88.3	201,594	228,196
Worked before and seeking work	12.1	4,707	17.7	6,886	70.1	27,243	87.9	34,129	38,836
First time job seeker	9.9	4,900	31.5	15,622	58.6	29,069	90.1	44,691	49,591
Total	**11.4**	**36,209**	**22.8**	**72,240**	**65.7**	**208,175**	**88.6**	**280,415**	**316,624**

Source: Labour force survey 2011 (Ministry of Human Resource Development and Labour).

2.6.2 Out-of-school children among nomadic groups

According to the Population Census of 2008, the total number of the nomadic population is 2.7 million (8.7 per cent of the total population of Sudan) and their movement spans one third of the country. The Sudanese nomadic people are categorized as those who are on the move for at least six months of the year, with all members of the family and their belongings in search of water and pastureland. Their lifestyle is directly linked to the animals they rear, with status and social position determined by one's animal wealth. The distribution of the nomadic population across the Sudanese states is not fixed due to their continuous mobility. South Darfur State, which is a conflict area, accounts for a sizable proportion of the country's nomadic people (36 per cent) *(see Table 2.19)*. Nomads in South Darfur state number approximately 979,000, representing 24 per cent of the state's population. Other states with the highest proportion of nomads are: North Darfur (18.7 per cent), Red Sea (18 per cent), North Kordofan (12.9 per cent) and West Darfur (17.9 per cent). In total, these four states accommodate about 46 per cent of the nomads in Sudan. This total becomes 82 per cent if South Darfur is included.

As demonstrated in the profile of out-of-school children in Dimensions 2 and 3, the nomadic people of Sudan have some of the lowest school enrolment and completion

[20] Labour force survey 2011, Ministry of Human Resource Development and Labour, Sudan.

Table 2.19 Distribution of nomadic population by state (in thousands)

State	State total population	Nomadic population	% within state	% of total nomads
South Darfur	4,094	979	23.9	35.7
North Darfur	2,114	396	18.7	14.4
North Kordofan	2,921	377	12.9	13.7
Red Sea	1,396	252	18.0	9.2
West Darfur	1,308	234	17.9	8.5
Kassala	1,790	195	10.9	7.1
South Kordofan	1,406	166	11.8	6.0
White Nile	1,731	39	2.2	1.4
Blue Nile	832	32	3.8	1.2
River Nile	1,120	28	2.5	1.0
Sinnar	1,285	27	2.1	1.0
Gedarif	1,348	18	1.4	0.7

Source: CBS, Population Census, 2008.

rates in the country, and thus, a high proportion of children out of school. Although basic education in Sudan has witnessed remarkable expansion in the past few years, the education of nomadic children remains a great challenge to education authorities. Efforts to provide quality basic education for all nomadic children have been met with reluctance from communities rejecting the notion of sending children, especially girls, to school. Furthermore, the existing nomadic education system is characterized by high dropout rates, especially after Grade 4, huge regional disparities, inadequate quality of learning and a shortage of qualified teachers.[21]

This section will profile the out-of-school nomadic children to complement the data provided in the Five Dimensions of Exclusion. The status of school participation for nomadic children aged 6-11 years old is estimated in the 2008 Population Census *(see Table 2.20)*. Unlike in previous censuses, it is the first time that nomads have been fully covered, and data on their education, labour force, fertility, housing and other characteristics have been collected.

A high proportion of nomadic children aged 6-11 years old are out of school, with exclusion rates ranging from 72.8 per cent at age 11 to 77.9 per cent at age 6. The total number of out-of-school children among nomadic populations aged 6-11 years is estimated at 414,250 (excluding not stated cases), which is close to other sources' estimates. Surprisingly, the share of out-of-school children who have never attended school is significantly higher than those who have previously attended. It is notable that the un-reported cases are higher than the previously attended cases in all ages (6-11 years) and across all states. When disaggregating nomadic out-of-school children by state, there is little variation: South Darfur has the highest number (152,152) of out-of-school children; followed by North Kordofan (55,304); then Red Sea (39,803); West Darfur (38,100); Kassala (29,991); and South Kordofan (23,895). The number of out-of-school children for the other states ranges between 1,000 and 6,000 children.

Although a large number of nomadic children are excluded from education, nomadic girls are almost completely deprived of attending primary education. Nomadic girls also tend to drop out before completing basic education. When considering children who are enrolled in school, regular government schools have higher numbers of girls (47 per cent) than nomadic children (38 per cent), internally displaced children (44 per cent),

[21] Education of Nomadic Children in Sudan. A thesis submitted for PhD Degree by Abdel Rahman E. El Dood, 2010.

[22] Interim Basic Education Strategy 2012-2014, MOE – Sudan.

Table 2.20 Per cent and number of nomadic primary school-age children out of school by age and by state (Dimension 2)

	School attendance					Number of out of school children
	Currently attending	Out of school	Previously attended	Never attended	Not reported	
Age						
6	9.2	77.9	1.2	76.7	12.9	85,158
7	15.1	75.9	1.5	74.3	9.1	65,882
8	17.1	75.2	1.7	73.4	7.7	85,295
9	19.7	73.5	2.0	71.5	6.8	49,466
10	17.9	75.6	2.5	73.1	6.6	92,216
11	21.2	72.8	2.8	70.0	6.0	36,233
Total	16.1	75.5	1.9	73.6	8.4	414,250
State						
South Darfur	16.9	74.8	1.9	72.9	8.3	152,152
North Kordofan	16.4	77.9	1.1	76.8	5.8	55,304
North Darfur	30.9	61.0	1.9	59.1	8.1	48,189
Red Sea	12.5	82.8	1.8	80.9	4.7	39,803
West Darfur	6.5	80.0	2.6	77.4	13.5	38,100
Kassala	6.2	83.3	3.1	80.1	10.5	29,991
South Kordofan	13.7	72.2	1.4	70.7	14.1	23,895
White Nile	14.4	78.4	1.1	77.2	7.2	5,883
Blue Nile	1.7	92.3	3.5	88.8	6.0	5,666
Nahr El Nil	7.1	88.5	.9	87.6	4.4	4,713
Sinnar	1.9	93.4	.1	93.3	4.8	4,662
Gedarif	2.3	91.5	.5	91.0	6.2	3,289
Northern	8.8	85.9	.6	85.3	5.3	1,897
Al Gezira	2.6	95.0	0.0	95.0	2.5	705
Khartoum	0.0	0.0	0.0	0.0	0.0	-
Total for age 6 to 11	**16.1**	**75.5**	**1.9**	**73.6**	**8.4**	**414,250**

Source: CBS, Population Census, 2008.

and multi-grade village (41 per cent) and non-governmental (44 per cent) schools. This suggests that girls are at a greater disadvantage among vulnerable population groups than in the population as a whole.[22]

2.6.3 Education of conflict-affected children

Undoubtedly, conflicts affect access to education by preventing the opening of schools, threatening children's security while travelling to school and attending class, and increasing teacher absenteeism. For children who do attend school, conflicts can have a negative effect on educational attainment. It also contributes to increased dropouts and reduces educational survival rates due to displacement, military recruitment or economic hardship. Educational attainment beyond primary school suffers the most during conflict, perhaps due to the greater need for specialization at these levels, as well as the increased likelihood for youth involvement in the military, workforce or marriage.

In Darfur, as a result of combined international and government efforts, there is a significant increase in the number of children accessing basic education. The Second Basic Education Service Delivery Survey (SDS2) was conducted from December 2010

to January 2011 in Blue Nile, North Darfur, Red Sea and South Kordofan in Sudan. The SDS2 provides data on resources in basic schools to inform education policies on how to improve service delivery and promote students' learning. The study showed that the GER in basic education increased from 65 per cent in 2004 to 72 per cent in 2010. The fastest relative growth was reported in West Darfur (pre-split in 2012), where the enrolment rate increased by 15 per cent. The average growth rate of enrolment for basic education between 2004 and 2009 was 15 per cent, compared to the average for Sudan at 6 per cent. More analysis is needed to identify the factors contributing to the significant increase in school enrolment in that state. The other Darfur states also registered double-digit growth rates in enrolment between 2004/2005 and 2008/2009 school years.

Enrolment has increased in the Darfur region; however, the GER on average remains low compared to the rest of the country. It is important to note that GER is an indicator of the capacity of the education system vis-à-vis the population of school-age children but it is inadequate for measuring the share of this population that is currently in school. For example, we can interpret the GER as showing that basic schools in Sudan had enough school places to enrol 72 per cent of 6-13 year-olds, but not that 72 per cent of 6 to 13-year-olds were actually in school during the 2008-09 school year. Moreover, there are valid concerns regarding timeliness, quality and thoroughness of the enrolment data. In short, other sources are needed for an upgraded and more holistic perspective. Despite this progress, massive disparities remain within and between states throughout

Table 2.21 Gross enrolment rates by state and share of girls in total enrolments, 2008/2009

State	Primary education		Secondary education	
	GER (%)	Girls' enrolment (%)	GER (%)	Girls' enrolment (%)
West Darfur	88	44	25	35
South Darfur	41	43	17	40
North Darfur	67	46	21	42
Sudan	72	46	29	49

Source: Status of Education Sector in Sudan, WB 2011.

Note: The Second Basic Education Service Delivery Survey (SDS2) was conducted from December 2010 to January 2011 in Blue Nile, North Darfur, Red Sea and South Kordofan in Sudan. The SDS2 provides data on resources in basic schools and on Grade 5 student learning outcomes to inform education policies to improve service delivery and promote student learning. The SDS2 provides a sample representative of the four survey states.

Sudan. The states with the highest GERs were the central states, which were largely unaffected by conflict, whereas states with the lowest GERs were those affected by conflict, such as North and South Darfur.

According to the Darfur Recovery and Rehabilitation Strategy 2012, the recent history of conflict and continued insecurity in the Darfur region, makes it more difficult for children to access and stay in school. The average likelihood for a child being out of school in Sudan is estimated at 39 per cent and children in rural areas are 1.8 times more likely to be out of school compared to children in urban areas. In 2009, approximately 461,500 children in the Darfur region were out of school, which accounted for over 20 per cent of all out-of-school children in Sudan. The percentage of children out of school in Darfur is above the national average, except in North Darfur. State populations (10-14 years) indicate that nearly 78 per cent of out-of-school children between ages 10-14 have never attended school and, of those who attended, 72 per cent dropped out before completing primary school (especially in emergency-affected states). Thus, the probability of being out of school in conflict or emergency affected states is higher than in other states.

2.7 Summary

Multiple data sources point to the continued presence of very large numbers of out-of-school children in Sudan. They number almost 2 million at primary school age and over 600,000 at lower secondary school age. Of those who are in school, the majority do not stay to complete the primary education cycle. When examining past dropout rates, it is evident that there is a large proportion of children in school at risk of dropping out before reaching the final grade of primary and lower secondary education. Children at risk of dropping out of school are estimated at 530,000 in primary school and 30,000 in lower secondary school. Profiles of the out-of-school children have revealed that these children are predominantly from rural areas and are more likely to come from nomadic groups and the poorest households, as well as from displaced families. Girls are under-represented in the total school-age population in Sudan, yet over-represented among children who are excluded from school or at risk of dropping out.

In Sudan, nomadic communities have a large proportion of out-of-school children estimated at 414,250 (aged 6-11 years), the majority of which are girls. The school attendance rate for nomadic children is very low, ranging between 6-21 per cent. North Darfur state has the highest number of nomadic children out-of-school followed by North Kordofan, Red Sea, West Darfur, Kassala and South Kordofan.

As a result of combined international and government efforts in conflict-affected areas like Darfur, there is has been a significant increase in the number of children accessing basic education in Sudan. The SDS2 was conducted from December 2010 to January 2011 in Blue Nile, North Darfur, Red Sea and South Kordofan in Sudan. The SDS2 provides data on resources in basic schools to inform education policies to improve service delivery and promote student learning.

3 Bottlenecks and policies/strategies

3.1 Overview

The problem of out-of-school children was recently acknowledged by the Government of Sudan by joining the OOSCI, which helps countries understand the scale of the problem and to answer the questions of who, why and how. In this section the Monitoring of Results for Equity System Conceptual Framework (MoRES) will be applied to analyse the bottlenecks and barriers associated with the exclusion of children from school. This section analyses the 'profiles' of children to answer a set of questions that would help identify the causes of exclusion. One important contribution of the OOSCI rests in identifying and analysing bottlenecks and causes among the Five Dimensions of Exclusion. The OOSCI guidance note identified four categories of determinants as a conceptual framework of analysis in each of the Five Dimensions:

Enabling environment: The sociocultural, political, budgetary, and institutional factors that either promote or undermine the achievement of objectives related to out-of-school children.

Supply: The capacity and effective functioning of the systems required to deliver desired services or to promote desired practices among priority populations.

Demand: The geographic, financial, social, and cultural factors that encourage or discourage the use of existing services or the adoption of desirable practices among priority groups.

Quality: While quality is subject to interpretation across contexts, quality here entails adherence to the minimum required standards for services or care practices, as defined by national or international norms.[23]

From a programmatic perspective, the four categories of determinants fall into a rational sequence. Each category is necessary but insufficient alone to achieve results for the most disadvantaged children. All the categories must be present and fully functional to achieve and sustain universal access to education as a planned result. By assessing the status of each of the four categories within a particular context, it is possible to identify the critical factors or 'bottlenecks and barriers' that prevent the desired outcome of ensuring all children at school age are enrolled. The main factors impacting out-of-school children are infrastructure, poverty, disability, child labour, nomadic life style, displacement, gender, conflict, social attitudes towards education and the financing of education. The objective of this review is to identify the bottlenecks/barriers to participation, to inform policy makers and to develop strategies.

[23] Monitoring of Results for Equity System 2011. NY, UNICEF.

"Without information, things are done arbitrarily and one becomes unsure of whether a policy or programme will fail or succeed. If we allow our policies to be guided by empirical facts and data, there will be a noticeable change in the impact of what we do."

Data Demand Workshop Sudan, 2010

In Sudan, multiple data sources were used in identifying and analysing out-of-school children bottlenecks. The Baseline Survey on Basic Education 2008, ECD assessment 2010, Baseline Study on Knowledge, Attitudes and Practice (KAP) On Girls' Education in Sudan 2004, Status of Sudanese Children 2010, Sudan Household Health Survey 2010. Nomadic Children Education Status research 2010 and Nomadic Education Project Evaluation 2010 were the main sources of data related to education for nomadic children. Education Five Year Strategy, iBES, Girls Education Sub-sector Strategy and Darfur Development Strategies and Cost and Financing of Basic Education Study in North Sudan 2008 were the main sources regarding education policy and strategies. In addition, group discussions were organized with education experts, MoE officials, partners and country study team members. These sessions helped in gathering more information and in verifying data analysis, directions and conclusions. The analysis was driven by the profiles of excluded children, education policy intentions and practical implementation.

3.2 Bottlenecks and policies/strategies on enabling environment

3.2.1 Analytical summary

Based on the findings from Chapter 2, this section on enabling environment will identify the major bottlenecks and recommend evidence-based policies/strategies. It will also look into the correlation between the many factors that contribute to the over 3 million out-of-school children aged 5-13 years in Sudan. The main bottlenecks and barriers under the four determinants are due to structural inequalities, disparities, social values, conflict, natural disasters, poverty, dislocation (displacement), gender and the value placed on education by parents. Multiple disparities often intersect to create complex and mutually reinforcing patterns of disadvantage and barriers to schooling.

At the pre-primary school level, ineffective government policies, limited investment and poor infrastructure, as well as limited institutional capacities, are the major bottlenecks. At the primary and lower secondary school levels, the bottlenecks include low financing, negative social values, parents' attitudes, and inadequate implementation of education policy and follow-up mechanisms. The education strategic plan does explicitly state policies and legislation that address the exclusion of out-of-school children. The lack of updated education information, weak governance and institutional issues at different levels of the education management system also act as bottlenecks. Moreover, the lack of an effective social protection system, which would address disparities, support poor families and help conflict-affected children to access education, is another barrier to schooling.

This section proposes the need for building an effective information and monitoring system to track out-of-school children at the local, state and national levels. An M&E system would enable the accurate managing of results and lead to accountability, equitable resource allocation and responsive budgeting. Strengthening the ministry planning capacities and policy analysis, and introducing both equity and a result-based programme approach would help reach out-of-school children. At the policy level, there is a need to establish a policy enforcement mechanism and to continue working on the current strategy using stronger advocacy. It is essential to bring other partners on board – donors, civil society and community members – to engage with the education sector in policy dialogue and advocacy on the issue of out-of-school children.

3.2.2 Bottlenecks in the enabling environment

Enabling environment: The social, political, budgetary and institutional factors that either promote or undermine the achievement of objectives related to out-of-school children.[24]

This section analyses the key barriers or bottlenecks that affect school participation for children.

3.2.2.1 Social norms

In Sudan, social norms act as barriers to positive behavioural change, particularly within some groups such as the nomadic, pastoralist and other ethnic populations that attach a low value to education. These communities expect their populations to respect traditional customs, though it might not be in the interest of the individuals.

The social context of communities and households matters for children's schooling decisions. The Baseline Study on Knowledge, Attitudes and Practice (KAP) on Girls' Education in Sudan 2004 found that parental attitude and support had a great deal of influence on girls' participation and the level of success attained in education. Parents and community attitudes are influenced by traditional beliefs regarding the ideal roles of women and girls in society. Traditionally, the only roles available to women were those of wives and mothers, thus girls were seen as potential nurturers and individuals offering support for men who will work to provide for the family. In many parts of the country, parents do not send children (especially girls) to co-educational schools because of the normative expectation that girls and boys should not mix in school. The KAP study concluded that social norms are a strong reason for not attending school, especially for girls.

Some conservative communities in Sudan prefer to send their children to *Khalwas* or religious schools rather than formal schools. However, there is no strong linkage system between *Khalwas* and basic schools to ensure a smooth transition of children from *Khalwas* into the formal education system, leaving many children out of school. According to El Dood (2010) home tasks are assigned to children in nomadic communities as a function of their expected future roles. During childhood, the investment of girls' and boys' time in daily household duties, including animal herding, is seen as important. When they do not perform these duties, it may put the family under the censure of the whole community. Children's education is not considered an essential asset in this context.

3.2.2.2 Policies and legislation

The existence and implementation of laws and policies at different levels of the education system can create an enabling environment for children's education in Sudan. National legislation may be a positive influence or represent a crucial bottleneck. Sudan is committed to all international declarations to provide the basic right of education to all of its citizens. It is among the signatories of the MDGs as well as the EFA goals, and Sudan has undertaken several policy and programme initiatives to achieve these international goals. The commitment of the government was reflected in various forms such as the Sudan Transitional Constitution 2005, the Presidential Declaration to adopt and implement the Jomtien Declaration on EFA, the Cabinet Resolutions to convene a national policy conference on education every 10 years, the Education Act 1992, and the development of the Education Five-Year Strategic Plan as part of the Comprehensive National Strategy.

[24] Monitoring of Results for Equity System 2011. NY, UNICEF.

The 2001 Education Act has guided educational provision since its enactment through three key sub-sector policies:

- the free and compulsory primary education policy,
- the national curriculum policy, which emphasizes cultural relevance and holistic development of the learner, and
- the policy on an all-graduate teaching force, which was issued in response to the free primary education policy.

Regarding pre-school, the government policy is to have a kindergarten attached to every basic school, aimed at preparing young children for integration into the formal schooling system. The bottleneck is that education policy and legal framework intentions are not always translated into action and there is no clear enforcement and follow-up mechanism. There is also a policy gap, as the existing policy on an all-graduate teaching force is under-funded.

There is a need to use the current strategy and enforce the implementation of existing policies with stronger advocacy, partnership and clear monitoring mechanisms. The state ministries should expedite the sector strategy implementation process. Furthermore, greater engagement of other stakeholders such as donors, civil society and community members, must be considered in order to open up policy dialogue to all partners in the education sector.

3.2.2.3 Governance/partnerships

Since 1993, the educational system of Sudan has been decentralized and structured along federal lines – divided into the three tiers of state, locality and administration unit. The primary responsibility for the financing and delivery of basic education lies with localities. Decentralization has resulted in the diffusion of power and authority with the responsibility for the delivery of general education under the State Ministry of Education and its local councils. Ineffective implementation of decentralization has created a lack of clear delineation of authority and responsibilities between the states and localities, as well as an unclear division of responsibilities between various tiers of government and the administrative hierarchy. Authority is transferred to localities without adequate investment in capacity development and the resources necessary to effectively implement education policies. One of the consequences of this predicament is a lack of coherent policy directives, limited coordination, inefficient prioritization of issues and inequitable distribution of resources. All of these system-related factors impact on the supply of education services.

In addition, the education sector in Sudan lacks effective sector-wide programming mechanisms to address the needs of excluded children, however the GPE programme has recently started a sector-wide approach for education that requires further strengthening. This requires programming that would work toward a common goal and policy guidance to address the challenges faced by out-of-school children. Given the scale and the projected increasing need for social investment and protection programmes, the MoE should be better positioned to ensure that these programmes tie in directly to targeted needs of out-of-school children. Since issue of out-of-school children is a social, political and economic problem, lobbying with key stakeholders will ensure the adoption of a sector-wide and integrated approach. The key active partners that potentially could take the lead on the demand side are the Ministry of Social Welfare, the Federal Ministry of Finance, NGOs, UN agencies and CBOs.

3.2.2.4 Inadequate budgeting/resource distribution

The World Bank Education Sector Review Report indicates that there has been positive progress in education financing over the last 10 years. Between 2000 and 2008, the share of education in total public spending increased by almost 4 per cent; and as a share of GDP it is 2.7 per cent (as of 2007), which is more than doubled the share it was in 2000. However, Sudan still spends less than countries with similar incomes

and a similar proportion of school-age population. Despite the increase in education spending since 2000, public spending on education as a share of GDP is comparatively low, ranging from 1.3 to 2.7 per cent *(see Table 3.1)*. Recurrent spending on education accounts for 91 per cent of its total spend, with development spending comprising only 9 per cent. With rising inflation, this raises alarms over the potential need for further increases in recurrent spend at the expense of a small portion of development spending.

Table 3.1 Estimated total education public spending 2000-2009

Indicator	2000	2004	2005	2006	2007	2008	2009
Real education spending based on 2008 (SDG millions)	660	1,335	1,332	1,892	2,276	2,509	2,404
Education spending as a percentage of total public spending	8.1	7.1	7.3	10.2	11.2	13.2	12.0
Education spending as a percentage of GDP	1.3	2.0	1.9	2.4	2.7	2.7	2.7

Source: Education Sector Review for Sudan 2010. World Bank.

The General Education Law of 1992 and the Education Five-Year Strategy 2012-2016 determined three major sources of education financing:

- public sources including public budget, state's budget and local authority's budget;
- investment in educational facilities such as educational publications, factories producing school supplies, scholastic associations and other investment fields; and
- the Education Support Fund supported through donations and taxes.

With decentralization and the establishment of the federal system, the management and financing of basic education came under the responsibility of localities. This includes construction of new schools, provision of school supplies and textbooks, recruitment and payment of teacher salaries and supervision of schools. However, most localities have little capacity to mobilize financial resources and collect local revenues to meet financial requirements. The state controls the distribution of funds allotted to development, and the authorities determine the share of every development sector according to different specifications varying from one state to another. The state governments tend to allocate more resources to sectors such as infrastructure, agriculture and health. As a result, the education sector has never been a priority for the utilization of resources at the state level. It is interesting to note that despite this decentralization framework, a huge number of teachers are paid through the federal ministry because localities are unable to collect revenues and pay their salaries.

However, the central government does not allocate any budget for basic schools; therefore, public financial support through parent-teacher councils/associations covers the majority of operating costs of basic education schools. In most cases, school authorities impose fees or levies on parents, which adversely affect children's participation in education. Although the government is directly responsible for ensuring that free and compulsory education is provided to all children in Sudan, there are real financial and institutional constraints to such a provision. Because of low education financing, coupled with decentralization implementation challenges, Sudanese children may lose the chance to enrol in school and remain in school, as presented in the Profile Chapter. Education financing has a significant impact on education supply and demand.

3.2.2.5 Lack of functional M&E system

The MoE recognizes the need for having credible information to plan, monitor and develop policy frameworks for the education sector. In the last three years, the MoE has depended on EMIS, as well as on teacher management databases, to monitor education

sector performance and the learning assessment framework. The MoE fully recognizes the data gaps related to out-of-school children and retention, as well as to learning achievements of students and provides strategies for addressing these gaps in the long term. Data gaps are a major bottleneck to developing and implementing an education strategy to reduce the number of out-of-school children and improve the quality of basic education in Sudan. This aligns with the first objective of the out-of-school children study: to improve the statistical information and analysis on out-of-school children.

The current project being undertaken by the MoE, in collaboration with UNICEF and the European Union, to establish an EMIS is a good start. EMIS was introduced to enhance national, state and locality level capacity to influence policy, and to plan, manage and monitor education service delivery. EMIS also has a role to play in supporting the integration of systems and processes at different levels of the education sector. So far, this computer-based system replaces the paper-based education information system managed at state and federal levels. However, EMIS has several challenges to overcome, including the development of a sustainable pool of human resources at the federal, state, locality and school levels to lead EMIS regarding data collection, processing and analysis, as well as the development and maintenance of EMIS software and equipment.

To complement the existing EMIS data, it is important to accommodate the information needs on out-of-school children as an integral part of EMIS system to enable the monitoring of their situation on a regular basis. Such data can be collected from periodic assessments and surveys that contain information on children's education status. In the future, EMIS should be strengthened to provide data that can be used at school level for school improvement planning and action. The effectiveness of the M&E plan will be demonstrated by its impact on the state implementation plans articulated through annual operating plans and budgets.[25]

3.2.2.6 Social protection system bottlenecks

The State of Sudanese Children 2011 prepared by the National Council for Child Welfare, with the support of UNICEF, has indicated that Sudan continues to face a deep social protection crisis, with women, children, youth and internally displaced people being the most at risk. Many poor people partially benefit from a social safety net, but it does not necessarily lift the poor out of poverty. Yet, when implemented effectively, social protection policies and programmes can contribute significantly to poverty reduction. This includes initiatives in social assistance for the most vulnerable with social insurance, labour market policies and programmes, addressing vulnerability at the community level and child protection. Total pro-poor spending from 2004 to 2009, for all of Sudan, increased by nearly a factor of four, although the pro-poor spending as a percentage of the GDP fell as a result of the global financial crisis, to 10.27 per cent in 2009. Some pro-poor spending comes from the Zakat Fund, which uses a fixed per cent /proportion of wealth to be paid yearly for the benefit of the poor.

Guided by the National Child Act with the National Council for Child Welfare support, several states developed their own Child Acts. Among the most vulnerable groups who will benefit from such legislation are children living and working on the streets and children affected by armed conflict. The implementation of the Child Act will promote child rights and enhance children's access to basic services, including education. The thousands of children living on the streets still constitute the largest group of separated and unaccompanied children in the country. These children have limited access to education. The State of Sudanese Children Report 2011 indicated a sharp increase in the number of cases of violence against children in contact with the law, from 10,491 in 2009 to 12,340 in 2010 (18 per cent).[26] Development agencies are concerned by the emerging social protection challenges as a result of globalization and economic reform. New policies have adversely affected the provision of services, particularly in rural areas, leading to an increase in inequalities and disparities. Social initiatives can play a

[25] EMIS Capacity Development in Sudan 2013, UNICEF Khartoum.

[26] The State of Sudanese Children 2011, National Council for Child Welfare with support of UNICEF.

significant role in the provision of social welfare and protection systems for the out-of-school children and those who are at risk. Despite the considerable progress made in school enrolment and literacy, a strong social protection system is required to reduce barriers to schooling for children of poor families.

3.2.3 Policies and strategies on enabling environment

According to the iBES,[27] the Government of Sudan prioritizes education as a key strategy in addressing the root causes of poverty and of tribal conflicts. The concept of education for all honours principles such as equal citizenship, and broadens opportunities for individuals and the nation. The country also understands that failing to provide quality education in Sudan puts children and youth at risk of being out of school, of being enrolled in the army or engaging in child labour. Lack of education also fuels the involvement of children and youth in activities that are against the law. Lack of education further delays the construction of a globally competitive economy that is critical for sustained growth and increased labour productivity. The government uses M&E information in three ways:

- to support policy making, especially budget decision making to help government ministries in their policy development and analysis work;
- to support ministries and agencies in managing their activities; and
- to strengthen accountability relationships.

In the General Education Planning Act (2001) for Sudan, preschool has been prioritized and recognized as an integral part of basic education. The Federal Ministry of General Education (FMoGE) took the overall responsibility at the national level for the provision of guidelines that direct preschool education with the expectation that individual state Ministries of Education would implement these guidelines in an environmentally and culturally relevant manner at the state and locality levels. The Federal State embedded this commitment in the Five-Year Plan (2007-2011). A presidential decree issued in 1990 further entrenched preschool into the formal school system, appointing it as the beginning of the educational ladder for the children of Sudan. As a result, the setting up of a new administrative department for preschool education at the FMoGE[28] took place. However, the current enrolment rate in preschool still remains low (50 per cent of children aged 5 are in preschool), with preschool institutions mainly concentrated in urban centres, while the *Khalwas* or informal religious institutions catering for children age 3-6 are predominant in rural areas. Like basic education, investments in preschool education have lagged far behind. According to the ECD Assessment 2010, private preschools cater for about 71 per cent of preschool education opportunities in Sudan.

While the EMIS provides useful data at the school level, there is no system in place to regularly collate data on student learning outcomes in Sudan. Regular learning assessments will allow the monitoring of learning trends over time and provide a better understanding of the relative contribution of educational inputs and practices to these changes. Learning assessments are shown to be among the least expensive innovations in education reform, costing far less than increasing teachers' salaries or reducing class size but with a higher benefits-cost ratio.[29] This is based on the EMIS project capacity assessment report prepared by UNICEF in 2013.

The Cost and Finance Study of Basic Education identified limited enthusiasm amongst private sector representatives interviewed for potential partnerships with the government. Some have already had unfortunate experiences; others considered basic education to be an exclusive responsibility of government. [30]

[27] The Interim Basic Education Strategy 2010, Ministry of Education in Collaboration with UNICEF.

[28] ECCE/ECD Assessment 2010, Ministry of Education Sudan.

[29] EMIS Capacity Development in Sudan 2013 UNICEF, Khartoum.

[30] Cost and Financing of Basic Education Study in North Sudan 2008. HTSPE Consultancy.

3.3 Bottlenecks and policies/strategies on supply

3.3.1 Analytical summary

A lack of both institutional capacity and sustained service delivery prevail across the Five Dimensions of Exclusion. On the supply side, the poor quality and inadequate number of schools, the school environment and insufficient teaching and learning materials are considered the main causes of keeping children out of school. Inequitable distribution of educational resources in Sudan affects all the Dimensions of Exclusion for out-of-school children. Limited investment in the education sector has resulted in poor infrastructure, shortage of textbooks and proper seating, inadequate water and sanitation facilities in schools as well as a lack of properly trained teachers, and teaching and learning materials. The supply-side barriers affecting Dimensions 1 and 2 are mainly related to distance to school and the serious shortage of preschool and primary school facilities, along with the teacher shortage in rural and nomadic areas. The supply-side bottlenecks that mainly affect children in Dimensions 4 and 5 include the lack of infrastructure, insecurity and mobility of large groups of nomads. To promote education supply, it is suggested that there is an expansion of education infrastructure in rural areas guided by a school mapping exercise, strengthening of ALP and nomadic education programmes, and a free supply of textbooks ensured for all children.

3.3.2 Bottlenecks on supply

'Supply' is defined as the availability of essential commodities/inputs: Most services, facilities and practices require a certain amount of essential commodities or inputs to function.[31]

The most critical determinants for access to schooling relate to infrastructure, the presence of qualified personnel, the information channels, and/or a combination of these factors. The availability of schools in appropriate locations influences household decision-making in sending children to school. In general, households will favour schools that are closer to their homes, and schools that provide a good learning and social environment for their children. Therefore, supply-side barriers to participation have both access and quality components. Having an adequate number of schools, good school infrastructure, learning and teaching supplies as well as water and sanitation facilities are necessary conditions for ensuring universal access to schooling, although these alone are not sufficient. This section of the report will discuss supply-side barriers (bottlenecks) of schooling in terms of the Five Dimensions of Exclusion. The Baseline Survey on Basic Education 2008 is the main source of information used for the analysis of supply related factors. This section also summarizes reasons for non-enrolment as per the opinions of teachers *(see Table 3.2)*.

Table 3.2 Reasons for non-enrolment (in teachers' views)

Reasons	Per cent
Lack of adequate provision • School is too far from home • Non-availability of educational services • Lack of classroom space	**62.6**
Families prefer traditional learning	**36.6**
Parental attitudes	**36.4**
Security reasons	**28.6**
Health reasons/disability	**13.0**

Source: Baseline Survey on Basic Education in the Northern States 2008.

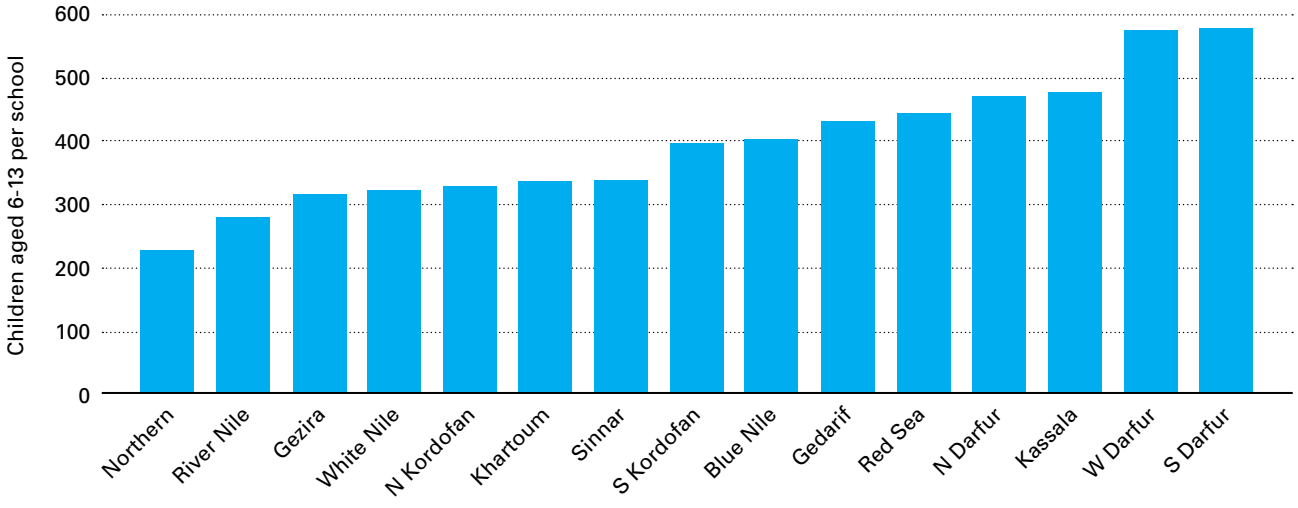
[31] Monitoring of Results for Equity Systems 2011, UNICEF, NY.

3.3.2.1 Limited number of schools and classrooms

A lack of school facilities and poor infrastructure have been confirmed as major barriers by both the Baseline Survey on Basic Education 2008 and the World Bank Education Sector Review 2010. According to the Education Statistic Books 2010/2011, there are 15,811 basic schools enrolling 4,832,473 children, which an average of 306 children per school in Sudan. This is less than the standard school capacity of 360 children. This does not mean that the existing schools have the capacity to absorb additional children, as some, such as mobile nomadic schools or village schools, have a shortage of classrooms and some only go up to Grade 4. Using the total number of children who should be enrolled in school and the total number of schools, a simple calculation reveals the need for 3,626 additional schools to enrol all school-aged children (6-13 years) in Sudan. If all school-aged children could attend school, available schools and classrooms would either not be enough or they would be heavily crowded, and thus be impractical. In Sudan, the overall percentage of schools for boys is 23.3 per cent and for girls 22.4 per cent. Although the distribution of single sex schools seems to be equitable, that more than 50 per cent of schools are co-educational does not favour the participation of girls, particularly in rural areas (as shown by earlier studies, such as the KAP Study on Girls Education 2004 and The Evaluation of the Nomadic Education Project 2008.

Based on the projection of EMIS 2010, the average number of children at the age of 6-13 years per school in the 15 states can be estimated *(see Figure 3.1)*. The highest number is reported in South Darfur and the lowest in the Northern state. In states such as West Darfur, South Darfur and Kassala, there are very few schools compared to the number of children. The pupil-classroom ratio in basic education in West Darfur is the highest with 64 pupils per class. In South Darfur and in North Darfur this number represents 56 and 49, respectively, with an average of 48 pupils per classroom across Sudan.[32] The large number of out-of-school children in these states is unlikely to be brought into the education system without constructing additional schools to meet the demand. For the eastern states, there is a need to consider the provision of more single-sex rather than co-educational schools to respect cultural diversity, especially in rural and nomadic areas. Although the government has made significant efforts to provide single-sex schools, these remain inadequate.

Figure 3.1 Average number of children aged 6-13 per school by state



Source: EMIS 2010; Population projections by state.

[32] 2013-2019 Developing Darfur: A Recovery & Reconstruction Strategy Pursuant to Article 31 of the Doha Document for Peace in Darfur Joint Assessment Mission Prepared on behalf of the Darfur Regional Authority.

Regarding access to preschool, only 41 per cent of schools have attached kindergartens, with 42.9 per cent of pupils in Grade 1 having gained admission after completing two years of preschool. The Northern and Khartoum states have higher percentages of children completing preschool and being admitted, not because they have preschools attached to basic schools, but because there is higher private sector participation in preschool education in these states.

Furthermore, the Baseline Survey on Basic Education in Sudan 2008 documented the following findings on the situation of basic school infrastructure in Sudan.

Classroom conditions: A shortage of classrooms and other facilities was evident in many schools. In some schools, pupils were vulnerable to the vagaries of the weather. About 42 per cent of classrooms in basic schools in Sudan were in need of repairs, and 9 per cent required replacement. The survey also found wide variation in the quality of school infrastructure by state: 29 per cent of classrooms in Khartoum state needed to be renovated or replaced, whereas the figure rose to 66 per cent for classrooms in South Kordofan. In addition, many schools are built with local materials and are either unsuitable for learning (no light, insufficient space, no roof) or were inaccessible during the rainy season. The net effect of these deficiencies is disrupted learning.

School facilities: The findings indicated that 83 per cent of the schools have no telephone; 77 per cent of the schools have no first aid services; 42.3 per cent of the schools have an open space identified by the schools as playgrounds and 35.2 per cent of the schools have facilities that the school head teachers call (in Arabic) Masrah, i.e. space for cultural activities, or 'school with theatre'. Most schools (93.4 per cent) are not equipped with computers and only 59 per cent of the schools have shaded areas. There is a need to ensure better targeting of schools to improve access to needed facilities and services. For first aid kits in particular, there is the need not only to procure these kits, but also to support schools in improving their emergency preparedness and response in the event of disasters such as floods or fire. First aid should also be linked with a comprehensive school health programme that does not currently exist. Similarly, recreation facilities and environmental care activities (including tree planting) in schools should be supported within the Child Friendly School framework, which considers that schools are more than spaces for pursuit of academic excellence. They are equally spaces for socialization, leisure and fun. For a number of pupils, the schools did not offer much in terms of recreational facilities.

Seating of pupils: The survey shows that 50 per cent of children attending school have no desk to sit at. Of these, 11.8 per cent have alternative seats, most likely these are mats provided by the community and partners. In 15 states, 38.1 per cent of the pupils have nothing to sit on and thus have to sit on the ground. Nine states have 20 per cent or more of their pupils not seated. Six of these states (Blue Nile, North and South Kordofan, and the three Darfur states) have more than 40 per cent of their children not seated (sitting on the bare ground).

3.3.2.2 Distance from home to school

The distance of a pupil's home from school of no more than three kilometres is one of the standards used to measure accessibility. According to parents and caregivers, distance to school ranked among the top challenges or bottlenecks for children and constitutes a major barrier to schooling in Sudan.[33] But it is not only the physical distance to schools that is a problem, it is also the implication of that distance in terms of the socio-economic situations of some of the families. The Baseline Survey on Basic Education 2008 revealed that 66.3 per cent of schools are located within less than 1km of children's homes. However, six of the states have at least 5 per cent of their schools located 3km or more from homes (River Nile, Red Sea, North Kordofan, South Kordofan, North Darfur and South Darfur). The issue of access for children with disabilities also should be considered a major challenge.

[33] The Baseline Survey on Basic Education in Sudan 2008.

3.3.2.3 Insufficient supply of learning materials

The findings of the Baseline Survey 2008 indicate that the availability of textbooks, exercise books, pens, pencils and other teaching/learning aids is one of the most critical elements in providing a high-quality education, and in making a school functional and attractive. Parents, teachers and education managers at state and locality levels confirmed that schools lacked sufficient supplies of textbooks, teacher's kits, and reading materials. The concept that every student should have his/her own 'take home' textbook is highly desirable, but by no means mandatory or achievable universally. Children in the vast majority of conflict-affected areas, rural schools and those who live nomadic lifestyles do not have enough textbooks. In fact, there is a chronic shortage of textbooks for pupils and sometimes they are only available for teachers. The pupil-textbook ratio in nomadic schools was found to be very low, at an estimated ratio of one book to five pupils, while the ideal situation should be a minimum of two pupils sharing one textbook.[34]

The shortage of learning materials and textbooks impacts on the pupils as well as on the teachers, weakening the pupils' ability to follow and understand their teacher. More time is spent on copying the notes from the board and relying heavily on the teachers' notes. This dependency on the teachers' notes, as well as an insufficient number of textbooks shared among students, is less likely to positively influence further reading among the students. This situation does not improve the achievement of learning outcomes by the students and therefore the shortage of textbooks is one of the major supply side bottlenecks.

3.3.2.4 Lack of access to safe water and sanitation services

Data from the Baseline Survey on Basic Education 2008 indicates that the percentage of schools with safe drinking water ranges from 93.9 per cent in the Northern state to 41.7 per cent in the Blue Nile state. The findings have also revealed that the major sources of drinking water for 39 per cent of schools are taps inside the school, while 13 per cent have hand pumps (mainly in Western states) and 16 per cent have access to well water (mainly in the Blue Nile and White Nile states). However, the major sources of drinking water in the Western states are wells and *hafirs* (underground reservoirs), which are mostly unsafe water sources. These states should receive priority attention in the distribution of water points in schools.

Generally, the schools seem to have latrines drawing from the government's policy that every school should have access to separate sanitation facilities (boys and girls; male and female teachers). However, the survey data indicates that 35 per cent of the latrines either need to be repaired or replaced. About 17.9 per cent of the latrines were temporary and unsafe. Limited access to water and sanitation facilities is evident in many schools and affects children's participation in basic education. Lack of safe water supply and sanitary facilities is one of the immediate causes of dropping out of school, especially among girls. Girls need access to sanitation and clean water facilities that meet their needs when they reach puberty.[35]

[34] Education of Nomadic Children in Sudan. A thesis submitted for PhD Degree by Abdel Rahman E. El Dood, 2010.

[35] The Baseline Survey on Basic Education in Sudan 2008.

3.3.3 Supply policies and strategies

The main objective of the iBES is to increase the enrolment in basic education, especially in the states with the lowest enrolment rates, and thus improving equitable access. This expansion of access will be achieved through:

- increasing capacity (school construction and teacher recruitment and deployment);
- reducing household costs (including the provision of grants to schools in low income communities and school feeding programmes);
- building demand for basic education through national campaigns to stimulate demand for education and targeting under-represented groups (rural children, girls, nomads, internally displaced persons) ;
- targeting interventions to provide basic education opportunities for out-of-school children; and
- enriching the curriculum.

States willing to improve provision of educational opportunities need to consider an array of strategic options to effectively implement the existing policy. Among these options are making it mandatory to site and construct new schools within 3km of pupils' homes (especially to support girls' education); provision of subsidized transport for children who have to walk further than 3km; and the provision of access to water and school breakfast to ensure effective learning. The closer schools are to the communities, the greater chances of retention and continuity for children, especially for girls. A school mapping exercise should be carried out to help local authorities determine where new schools should be located. Equitable distribution of schools in and around communities still has to be enabled.[36]

In the last four years, the MoE initiated the ALP as a strategy to reduce the number of out-of-school children. The ALP is designed for the out-of-school children who have never attended school, dropped out of school or for those children who cannot be mainstreamed into the normal education system without catching up with the lessons that they have lost. The programme targets three age groups:

- children 7-9 years old are given a few months in a catch-up programme, focusing on numeracy and literacy, to enable their reintegration into the appropriate level of the formal system;
- children 10-13 years old, who have attended school but have dropped out, will complete a three-year adapted curriculum preparing them for joining Grade 8 and for sitting the final basic education exam; and
- youth of post-primary school age (15-24 years), who have never attended school or completed basic education and are in need of basic and post-basic education, will participate in an intensive education programme for basic literacy and numeracy skills training, with a vocational/technical training programme and short programmes on life-skills (self-confidence, negotiation, health and nutrition, handcrafts, home economics etc.) to support their employability.

ALP needs to be strengthened with better planning, coordination, resources and capacity building at state and locality level to attain its objectives of reducing the number of out-of-school children.

[36] Ibid.

3.4 Bottlenecks and policies/strategies on demand

3.4.1 Analytical summary

As this analysis has shown that sociocultural factors influence family decisions on sending or not sending children to school. The perceived potential economic and social gains from schooling are heavily influenced by sociocultural factors, especially among rural and nomadic communities. The negative social and cultural attitudes affect the enrolment of the children, particularly girls. In Sudan, girls are at higher risk of dropping out than boys. The demand for education is predominately influenced by the level of parent's education, as well as their perception and value of education. In addition, families are constrained by the increasing costs of education and the inability to meet these costs, particularly in rural areas, within nomadic communities and in conflict areas. The high prevalence of illiteracy, low value attached to education by many communities, widespread poverty, a long history of conflict and high cost combine to make the enrolment of all children in Sudan a distant target. Other bottlenecks that negatively impact children's school attendance and performance are lack of parental encouragement for children to attend school regularly; seasonal migration of parents for temporary employment in agricultural schemes; and neglect of children.

3.4.2 Social and cultural bottlenecks

Social and cultural barriers to schooling may present the biggest challenge, especially in trying to achieve gender parity in education for vulnerable children. Yet, these issues have to be addressed if progress is to be achieved in reducing the number of out-of-school children. Most social and cultural barriers manifest themselves as attitudes and practices that have gained acceptance over long periods of time, making them difficult barriers to overcome.

3.4.2.1 Parents attitudes, beliefs and literacy

The combined effects of parents' negative attitudes towards education, beliefs, family size and illiteracy are among the social and cultural bottlenecks that reduce child participation in basic education. Thirty-six per cent of the teachers reported that parents' attitudes are a major reason for non-enrolment in school *(see Table 3.2)*.[37] Parental encouragement and support have a great deal of influence on their children's schooling. Family sizes unmatched by family resources constrain children's access to education. In many rural communities, a large family size was said to be the result of traditional attitudes; an example of which is the view that many children are a source of social status and a source of security during their parents' old age.[38] In light of limited resources, male children are often given priority when it comes to making choices as to who will go to school.

Community awareness of and sensitivity towards education, especially girls' education, are still weak supports for promoting education and are limited to a few urban centres. Rural communities are largely excluded from the print media; newspapers rarely reach rural areas, and even if they were available, the majority of the population would not read them because of illiteracy. There is a powerful correlation between low enrolment, poor retention, unsatisfactory learning outcomes and parents' illiteracy. In Sudan, the literacy rate is 79 per cent among urban populations and 51 per cent of among rural populations (above 15 years old). The range of the literacy rate spans from 81 per cent

[37] Ibid.

[38] Baseline Study on Knowledge, Attitudes and Practice (KAP) On Girls' Education in Sudan 2004.

in Khartoum State to 44 per cent in West Darfur and 46 per cent in Kassala.[39] In the states where the illiteracy rate is high, the number of out-of-school children is elevated. The lack of role models demonstrating the successes of education in rural and nomadic communities tends to reduce the demand for education. Education is often associated with leaving home, which many parents would rather not encourage.

3.4.2.2 Attitudes towards girls' education

The attitudes and beliefs of many Sudanese communities emphasize the roles of women and girls in society as wives and mothers. Girls' education is not viewed as a right or even as a means to provide better family care. In many communities, especially in rural areas, there is a low tendency of sending girls to school. Moreover, some communities consider mixing boys and girls to be unacceptable social behaviour, especially as they get older. As a result, many girls who start school are prevented from attending when they reach puberty unless there is a school for girls, a female teacher or different time allotments for boys and girls. In addition, community and family beliefs tend to emphasize the role of girls (more than that of boys) in helping with household chores, resulting in many girls staying out of school.

As seen in the chapter on profiles of exclusion, more girls than boys are out of school. This may be due to fewer girls entering school or more girls dropping out, or both. There is gender disparity in enrolment and a gender gap among poorer children. Possibly, cultural norms that dissuade girls' schooling are stronger in poorer communities as well as in rural and nomadic communities. Gender also appears to be a sociocultural barrier for school in certain states, for instant in the Kassala and Red Sea states. In a paper prepared by the Girl's Education Unit, Federal Ministry of Education, the problem of out-of-school girls is attributed to the following:[40]

- negative community cultural attitudes and practices towards girl's education (e.g. Kassala and Red Sea states);
- social norms and traditions, such as early marriage constraining girl's enrolment and completion of primary school;
- continuous movement of nomadic communities coupled with families attaching a low value to education;
- distance from home to school and insecurity, especially in the war-affected regions;
- poor school environment, such as lack of gender-sensitive school latrines, unfenced schools, limited access to health services and lack of adequate seating arrangements;
- load of home duties assigned to girls that compete with school tasks and timing; and
- co-education.

3.4.2.3 Nomadic education – multiple barriers

Nomadic populations, in general, have been defined as those who do not have a permanent home or defined centre to which they have rights and obligations. The nomadic way of life is that of the pastoral tribesmen who move frequently in search of fresh pastures for their herds. It is a lifestyle that is affected and influenced by the interaction of their animals, vegetation, climatic conditions and diseases.[41]

Nomadic Education in Sudan: Current Situation, Economic & Social Factors and Future Prospective, 2010 study findings indicate that education continues to be inaccessible to most nomadic children. The causes are diverse and include unaffordable direct and indirect costs of schooling, shortage of educational facilities within walking distance

[39] Sudan National Baseline Household Survey 2009 - Tabulation Report.

[40] Dr. Omkalthom. 'Out-of-School Girls in Sudan 2011, Department of Girl Education.

[41] Nomadic Education Project in Kassala, Gedarif, Blue Nile, Sennar and White Nile States, Evaluation Report, MOE.

and poor school environment. When nomadic children engage in home activities, boys are often sent to take care of the animals while girls stay at home to assist their mother in taking care of younger siblings and attending to other household chores. Most of the communities interviewed acknowledged that these practices are prevalent and is sometimes a barrier to schooling. It is more likely that the children will either drop out of school to cover these needs or simply attend school once or twice a week, as opposed to the regular five or six days a week. Furthermore, low government investment in nomadic children's education, the closing down of boarding schools without other appropriate options and the uncertainties of the movement of nomadic people make educational planning, provision and student monitoring challenging. Unscheduled out-migration due to environmental conditions or conflicts between the farmers and nomadic populations disrupt school operations and classroom composition.

Although the dropout rate in nomadic schools was 7.1 per cent in 2008-09, when calculated separately for grades, it was found that the average dropout rate for boys was higher than for girls in Grades 3, 5, 7 and 8. It is also observed that the highest dropout rate among boys was in Grades 6 and 7 (10.5 per cent and 13 per cent, respectively); while the highest dropout rate for girls was in Grades 4 and 6 (and 11.6 per cent and 12.6 per cent, respectively). In general, dropout rates are higher in higher classes, resulting in only a small number of nomadic children reaching Grade 8. This means that many children who enter the school system through nomadic schools at the primary level do not complete the cycle and end up dropping out of school. The dropout rate is high among girls in nomadic communities due to the widespread practice of early marriage. Nomadic culture encourages girls' early marriage (10-13 years old) and this negatively affects girls' enrolment and retention in school.[42]

3.4.2.4 Children in conflict, emergencies and drought-prone zones

Conflict and emergency situations create demand and supply-side barriers for education as economic activities are disrupted, families displaced, infrastructure destroyed and access to schools are made insecure. The combination of these factors explains why many children in conflict and emergency-affected areas in Sudan are not participating in education. *The State of Sudanese Children* has indicated that some of the major factors affecting enrolment are natural disasters (floods and droughts) and civil conflict. Both factors causing societal instability, rendering schools non-operational, displacing families in large numbers and preventing children from going to school.[43] Some areas in Sudan are still experiencing civil turmoil, which makes security a major concern for children accessing school. The choice between education and the safety of a child is a situation the majority of parents face almost on a daily basis in emergency-affected areas. In situations of conflict and insecurity, schools are destroyed and children, especially girls, become particularly vulnerable. Therefore parents opt to take their children out of school. Sometimes, whole communities are displaced due to conflict, relocating in peripheral areas 'in the bush' or in communities where there is no access to schools. Some families are internally displaced and end up in camps. The camps may have schools but often these schools are unable to receive all the school-age internally displaced children.

It is evident in the profile chapter that conflict-affected states have a relatively high number of out-of-school children. Two conflict-affected states have the highest proportion of out-of-school children in Sudan: West Darfur has the highest percentage (55 per cent), followed by Blue Nile (54 per cent). The highest number of out-of-school children is found in South Darfur state (327,319), also a conflict area, and the lowest (16,411 children) is in the Northern state. The states of West and South Darfur (conflict-affected areas) have the lowest level of intake and the highest number of primary school-aged children out of school. Low enrolment rates, exacerbated by the conflicts, have prevented large numbers of children from obtaining an education. Many of these

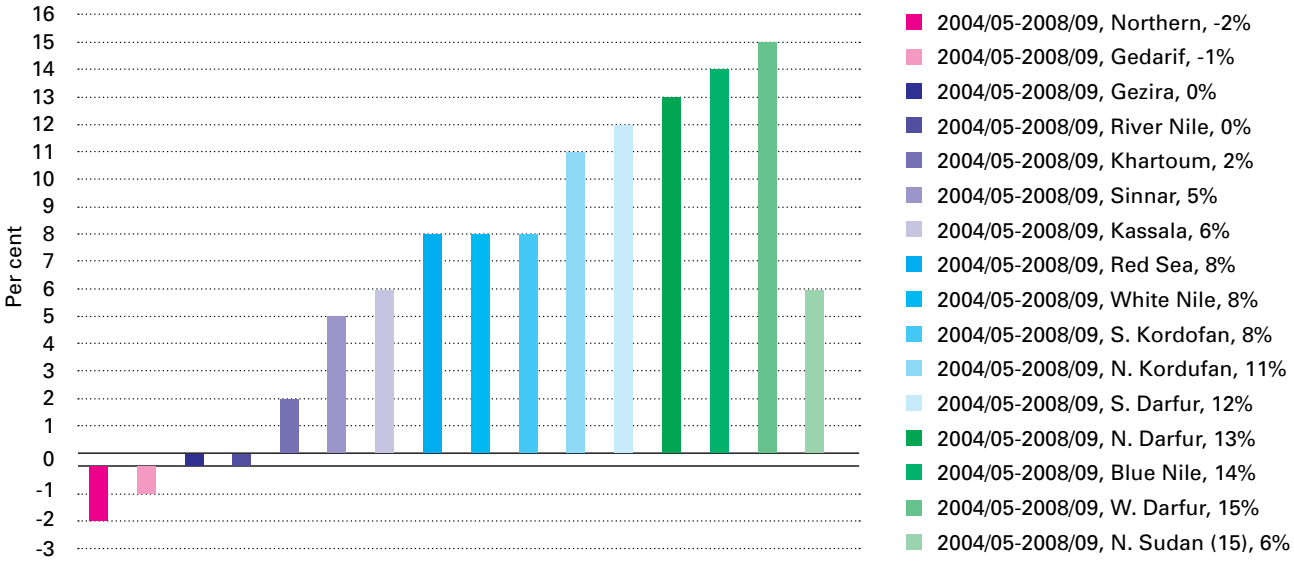
[42] Nomadic Education Project in Kassala, Gedarif, Blue Nile, Sennar and White Nile States, Evaluation Report, MOE.
[43] The State of Sudanese Children 2011, National Council for Child Welfare with support of UNICEF.

children have been subjected to exploitation, oppression and have endured years of marginalization and exclusion. The experiences of these children have induced a sense of trauma, in addition to emotions of bitterness and hatred. If not participating in alternative education approaches that offer basic competencies, life skills and psychosocial healing, these children may become the 'lost generation'.[44]

The Federal Ministry of Education has initiated a programme aimed at reaching vulnerable and out-of-school children through an adapted four-year curriculum that would lead to the reintegration of children, including demobilized child soldiers and returnees, into the formal educational system. A broader initiative is also under development to integrate literacy, life skills and vocational skills targeting out-of-school children and youth.[45]

The positive impact of peace on education following the signing of the CPA is confirmed by the substantial increase in basic school enrolment since 2005, especially for the populations that were previously affected by conflict. Basic school enrolments increased by almost a million students between 2004-05 and 2008-09, corresponding to an average annual growth of 5.7 per cent. In comparison, there was an average annual increase of 4.2 per cent between 2000-01 and 2004-05. In fact, basic school enrolments have grown rapidly since 2005 in most or all of the states affected by conflicts, particularly the Darfur states, South Kordofan, Blue Nile, Kassala and Red Sea *(see Figure 3.2)*. However, due to data limitation, the available studies could not provide in-depth analysis on the barriers and policy implication of conflict on out-of-school children. It is a complex situation and more research is required.

Figure 3.2 Average growth rates of basic school enrolment from 2004/05-2008/09, by state



Source: Interim Basic Education Strategy, 2010.

[44] The Interim Basic Strategy, Ministry of Education, 2010.
[45] Ibid.

3.4.2.5 Girls married before 15 years of age

Families in rural communities favour marrying girls at an early age. In most cases, these girls drop out of school once they are married and start families. Early marriage often ends a girl's formal education. The SHHS 2010[46] data indicated that the proportion of girls that are married before they turn 15 years old is around 1 in 10 (9.5 per cent). The proportion of young women who were married before 15 years varied between urban and rural areas, with the proportion of young women married before the age of 15 being 7 per cent in urban areas compared to 10.8 per cent in rural areas. The educational status of woman appears to have an influence on the incidence of early marriage. The percentage of women married before 15 years of age declined from 16.1 per cent among women with no formal education to 9 per cent among women with a primary education, and to 1.1 per cent among women who had secondary or a higher level of education.

Early marriage is one of the main barriers leading to girls' leaving school at lower secondary level and a potential factor for those at risk of dropping out. The children of young, uneducated mothers are less likely to have a good start to their education, do well in class or continue beyond the minimum level of schooling. Their daughters are likely to drop out, marry young and then begin the cycle again.[47]

3.4.2.6 Peers negative influence

Peers matter in education participation, especially at the lower secondary level. The Nomadic Children Education Situation Study 2010 indicates that, according to teachers, education managers and out-of-school youth, peers' influence plays a major role in keeping many children and potential pupils out of school. Most of those affected choose to stay out of school to join their peers in doing petty trade or just passing time in the markets and other public places. The influence of peers is extremely powerful in behaviour formation. According to some of the youth interviewed, education presented a delayed opportunity for earning money or a completely lost opportunity to earn the money altogether. For some, however, engaging in income-generating activities provided an opportunity for making extra cash while they were still in school.

3.4.3 Sociocultural policies and strategies on enabling environment

Without an understanding of perceptions and practices on issues affecting young children and their parent's lives, it will be difficult to develop effective strategies that positively impact on behaviour and practices. Findings from studies carried out on the KAP of target populations have proven to be instrumental in developing tools for effective evidence-based policies and building strong strategies to address access gaps. The duty bearers, such as the Ministry of Social Welfare, National Council for Child Welfare, civil society and NGOs, can play key roles in raising the awareness of parents and communities. It should be considered as an overarching strategy for behaviour change, although it is a long-term objective and not necessarily a responsibility of the education sector alone. An integrated approach is necessary to address all the underlying causes of the problem.

To promote girls' education, it is important to address cultural issues through the use of media and to promote agreement amongst families to allow girls to complete school.[48] The MoE in Sudan conducts annual enrolment campaigns as a strategy to reduce the number of children out of school. At the policy level, advocacy will build consensus for maintaining basic education as a strategic priority and create an enabling environment to improve the delivery of primary education services nationally. At the community level, the campaign focuses on communication and raising awareness on

[46] Sudan Household Health Survey 2010, Ministry of Health Sudan.

[47] Education of Nomadic Children in Sudan. A thesis submitted for PhD Degree by Abdel Rahman E. El Dood, 2010.

[48] Girl Education Strategy 2009-2011. Ministry of General Education in Collaboration with UNICEF.

the importance of education in low enrolment areas, with the objective of promoting positive community attitudes, values and practices towards girls' and boys' education. To address some barriers while creating demand, the enrolment campaign is usually supported by the provision of learning spaces, capacity-building activities and direct support to the registered and enrolled children. Stronger partnership is required to bring together all stakeholders, including government and non-governmental, communities, parents, professional associations, and participant groups to facilitate the mobilization of the expertise and knowledge required for improving access to quality primary education for out-of-school boys and girls.

The exclusion of nomadic children due to a number of variables operating simultaneously is another factor contributing to children being out of school in Sudan. As part of the commitment towards the MDGs and Universal Access to Education Goal, the government, in collaboration with UNICEF, prepared a sub-sector strategic plan (2009-2011) for the education of nomadic populations. This strategic plan, which was updated for 2013-2016, addresses nomadic populations, and their social, economic and political circumstances. The strategy emphasizes the importance of alternative education models that could provide quality education valued by communities that responds to the economic needs and lifestyle of nomadic communities.

3.4.4. Economic bottlenecks and policies/strategies on demand

3.4.4.1 Economic bottlenecks

Financial access: Financial barriers often prevent deprived groups from utilizing available services or adopting certain practices. These barriers can be direct (e.g. user's fees, purchase of required inputs by households) or indirect (cost of transportation, time, etc.).[49]

Economic factors influence most decisions as well as the conditions within the education system. At the household level, family economic status and wealth affects schooling decisions in terms of budget constraints, direct and opportunity costs of schooling, and the perceived economic value of education. These economic bottlenecks, directly or indirectly, constrain access to education in Sudan across the Five Dimensions of Exclusion. The analysis of the Profile Chapter has shown that the poorest children are disproportionately out of school and are less likely to attend school than their richer peers. The Education Baseline Survey 2008 shows that the community provides a very high proportion of non-salary expenditure (89 per cent) in schools compared to the government's share of only 1 per cent, with other sources providing the remaining 10 per cent. Clearly, there is need for the government to increase its share of non-salary expenditure and investment in education. Education financing is a major economic bottleneck constraining the provision of quality education services for Sudanese children.

The available literature suggests a set of economic demand-side factors drive education deprivation for certain groups in Sudan. The following section examines these factors as well as their impact and consequences on children's schooling.

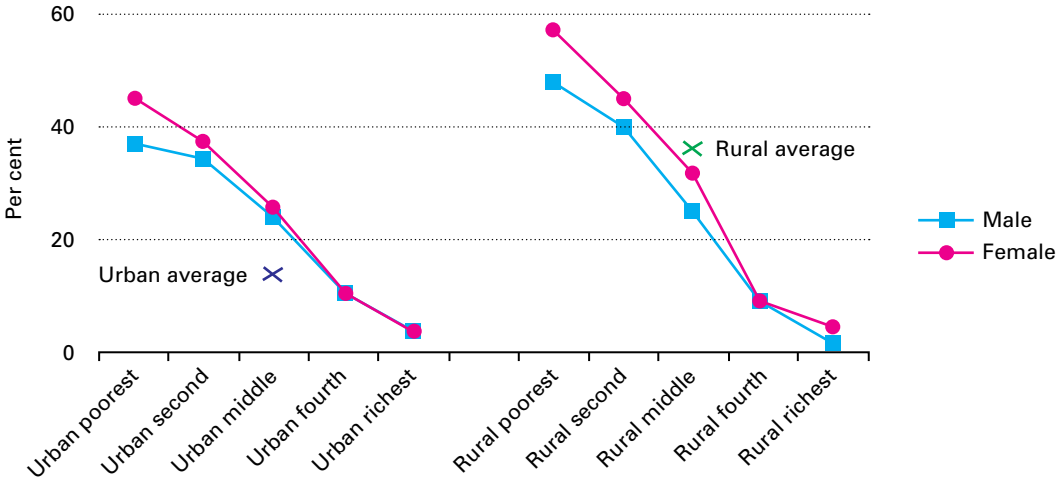
3.4.4.2. Low family income

Children from poor families have less access to education than children from wealthy families. Poorer families are more likely to face financial problems trying to meet the high and increasing education costs. Opportunity costs, too, are relatively high for poorer families, who depend on children to do home duties or to work to supplement family income. The value of the additional income generated by children or unpaid child work at home is higher among poor families than richer households. In most cases, poor households prioritize immediate survival needs over children's education.

[49] Monitoring of Results for Equity - UNICEF 2011. New York.

The high actual and opportunity costs of schooling tend to influence family decisions on whether to send children to school or not. Household wealth also has an influence on net primary school attendance. The net primary school attendance ratio was only 50.1 per cent among children from households in the poorest quintile, compared to 96.7 per cent among children from households in the richest quintile. The net primary school attendance ratio was 56.1 per cent among boys belonging to households in the poorest quintile, compared to 96.6 per cent among boys from households in the richest quintile.[50]

Figure 3.3 Percentage of primary school age children who are out of school (Dimension 2), by wealth quintile, urban/rural location and gender



Source: SHHS 2010.

There is a very large disparity between the richest and poorest children, and a large rural-urban gap. If one focuses on children from the wealthiest families, then the rural-urban gap is quite small. But if one focuses on the poorest two wealth quintiles, there is a very large gap between the number of out-of-school children from the richest and the poorest quintiles. The gender gap is also larger among the poorest quintiles. Nearly 60 per cent of poor rural girls and nearly 50 per cent of poor rural boys are out of school. Dimension 3 is similar to Dimension 2; there are large disparities by rural/urban residence and wealth quintiles. Few 12 and 13-year-olds in the wealthiest quintile are out of school, but over half of poor, rural girls are out of school.

For those who have never attended school, the main reason is the cost of education (which accounts for 23 per cent of the total household heads interviewed). Cultural reasons came second and accounted for 14 per cent, while the distance from school constituted the third reason (13 per cent). Many disparities among states were evident. Other reasons account for 37 per cent.

[50] Sudan Household Health Survey 2010. Ministry of Health, CBS and UN agencies.

Table 3.3 Reasons for children aged 6-13 who never attended school

	Male (%)	Female (%)	Urban (%)	Rural (%)	Total (%)
No money for school costs	23.3	23.9	28.7	23.0	23.6
Supporting the family	7.3	8.5	2.2	8.5	7.9
Own illness/disability	2.7	2.5	2.2	2.7	2.6
Family illness/disability	0.4	0.5	1.7	0.3	0.4
School too far from home	15.1	12.8	3.2	15.0	13.9
Cultural reasons	11.2	17.0	13.4	14.5	14.4
Other	40.0	34.9	48.6	36.0	37.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Baseline Household Survey 2009.

3.4.4.3 Unaffordable school fees

The commitment of the Government of Sudan to free and compulsory education for all is enshrined in the Interim National Constitution 2005 as well as in various medium- and long-term development plans. Basic education is formally free and compulsory. In practice, however, it involves various costs that contribute to many school-age children not participating in education (Cost and Financing of Education in Sudan 2008). It is unclear whether the present dependence on a high level of parental investment is intended as a temporary or transitional measure, or whether a user-pays model will prevail. In either case, costs for schooling discriminate in favour of the wealthiest. It should be noted that some African countries are now offering free secondary as well as genuinely free primary schooling.

In most government schools, orphans, children whose parents died while fighting to defend the country, and the 'poor and vulnerable' were exempt from paying fees. Concessions were also given to 'two or more children from the same family' and in some but not all schools, no fees were payable for 'children of teachers'. In two instances, 'those working at the Ministry of Education' were also mentioned as exempt. The number of those not paying fees or having significant fee reductions varied from 'negligible' in a small number of schools visited, up to as high as 50 per cent; the median is 20-25 per cent of all pupils[51] and almost tallies with data of other similar recent studies. Findings of the KAP study[52] on girls' education suggest that in the majority of the states, even in communities where parents were aware of the importance of education for girls, enrolment levels were still low due to their inability to meet the costs of education. Parents in the poorer states pointed out that the high cost of education coupled with the deteriorating economy had reduced families' disposable income, making it difficult to provide an education for all the children, regardless of sex. In all the states of Sudan, education is financed through cost sharing, with the parents bearing the biggest share of the burden. Households have to contribute to a school's running costs, such as maintenance, water and electricity, and supplementary teacher payments. The World Bank Education Sector Review Report 2010 indicates that the average estimated out-of-pocket spending by households each year on operating costs was SDG15.00 per student in 200-09, higher than the SDG12.00 public spending per student on such costs.

Poverty aggravates the situation of girls' lack of access to education, as parents with scarce resources may have to choose between educating their sons or daughters, and they will choose their sons. With lower or no cost for schooling, they may be able to send both.

[51] Cost and Financing of Basic Education in Sudan, 2008, MOE.

[52] Base Line Study on Knowledge, Attitudes and Practice Report, 2004.MOE in Collaboration with NCCW and UNICEF.

3.4.5 Economic policies and strategies

Poverty is a main contributor to children being out of school in Sudan. Economic conditions are likely to negatively impact poor families that may rely on the labour of their children to contribute to the family income or to support them, compromising the ability of these children to attend school. The provisions of the iBES target the reduction or removal of taxes and duties on educational materials, as well as the piloting of school grants and school nutrition programmes to low-income communities. These provisions help bring down the out-of-pocket costs associated with access to education and mitigate the negative impact of the economic crisis on poorer households.

The iBES will continue to focus on areas where exclusion from schooling is the highest. As indicated in the situation analysis, this is largely in conflict-affected areas and among nomadic and marginalized communities in rural areas. The MoE will continue to use a range of delivery modalities that take into account the need for non-formal approaches to address learning needs in conflict-affected, displaced, nomadic and other marginalized communities. Introducing an equity approach in the education sector programmes to reach deprived children will pave the way for children to enjoy their rights and reap the benefits of socio-economic development.[53] Improving economic welfare is a long-term objective that may be realized through the implementation of the Poverty Strategy and iBES. Success in improving economic welfare should help address some of the out-of-school children bottlenecks.

Government response to mobility, sparse population and remoteness has been to introduce various alternatives to the standard educational structure. Boarding schools, mobile schools and distance education using radio broadcasts were among the solutions. In Sudan, the most common response to education for nomadic populations had been to try to provide education through primary boarding schools, which was phased out in 1992. The government decided to close down all boarding schools due to their high operating costs. Later, the government recognized the importance of boarding facilities for educating nomadic children due to their movement and distance from settled schools; however, no affordable and accessible boarding facilities have been provided. The existing nomadic education system requires the establishment of central schools with boarding facilities to cater for nomadic children beyond Grade 4. Therefore, the absence of boarding schools is regarded as one of the main bottlenecks to education of nomadic children in lower secondary school.

3.5. Bottlenecks and policies/strategies on quality education

3.5.1 Analytical summary

Amartya Sen, who won the Nobel Prize in 1998, wrote “Development as freedom appraises the quality of education as an avenue for development of nations”. Quality education can open doors to new opportunities, and can contribute to the creation of jobs, increased income, empowerment of women and eventually good governance and improved wellbeing.

In an internal consultation meeting with the core committee members, a consensus was reached on the main bottlenecks and barriers on education quality including a shortage of qualified teachers, unbalanced distribution of teachers, unattractive working conditions for teachers, poor learning conditions and poor evidence of educational outcomes from the community’s perspective. Views differed on the quality of curriculum, mother-tongue language as the medium of instruction from Grades 1-3 and sexual harassment. This can be attributed to a lack of studies and research that

[53] Interim Poverty Reduction Strategy Paper 2012, Ministry of Finance and National Economy, Khartoum, Sudan.

would provide data on the issues in question. Education quality is considered to be low and characterized by substantial variation across the states and between urban and rural areas as well as among different groups of children. The poor quality of education and low learning achievement both affect children's participation in education. School performance could be improved by quality in-service teachers training, equitable distribution of trained teachers, especially to nomadic and conflict-affected areas. Teacher training programmes should include skills on how to develop and use pupil assessments more effectively to improve pupil performance.

3.5.2 Bottleneck on quality

Quality: While quality is subject to interpretation across contexts, 'quality' here entails adherence to the minimum required standards for services or care practices, as defined by national or international norms.[54]

Access to schooling is just the one part education; another critical aspect is whether students are learning what they need to when they are in school. Challenges facing basic education in Sudan are the quality of education and the relevance of the education. Results of a learning assessment, which tested a representative sample of Grade 5 students in four states (Blue Nile, South Kordofan, Red Sea and North Darfur) in 2010, indicated that learning outcomes are very weak. The average student answered only 28 per cent of the mathematics questions correctly on the learning assessment. Students who live in rural areas or were internally displaced children performed, on average, lower on the mathematics assessment. Students performed significantly worse in schools that were closed often, had poor infrastructure, employed less experienced teachers and lacked textbooks.[55] There are significant rural/urban variations in performance, with schools in urban areas doing better. The reasons for the inadequate performance on the current curriculum were cited lack of security, unavailability of trained teachers and poor learning environments.

3.5.2.1 Teachers' working conditions

Teachers have the enormous burden of teaching overcrowded classes as well as attending to other administrative duties in the school. With such challenges, the incentives to teach are few. Teachers' remuneration is fairly low, to the extent that they hardly meet their daily needs. In focus group discussions, teachers revealed that due to the low pay they are forced to engage in other income-generating activities. As a consequence, the time devoted to lesson planning and assignment grading is not sufficient to ensure high-quality learning outcomes.

The EFA Assessment Report shows that teachers' poor remuneration and motivation results in high teacher turnover as they transit to better paying jobs. Even those who accept teaching as a calling and a vocation find it hard to bear the circumstances. Teaching, therefore, becomes more of a temporary job from which to leverage into better-paid work. As one teacher from a nomadic school said: "I am doing this job for now but if I get a better paying job, I will certainly move on." According to an education staff member in a partner organization, teachers have been complaining about their low salaries and lack of incentives.[56]

3.5.2.2 Unbalanced distribution of teachers

As part of the Teacher Education Reform in Sudan in 1994, the MoE decided that all basic education teachers would be recruited only if they had attended a university course. As a result, in 2000, 8,000 teachers (males and females) obtained a university degree (Bachelor of Education). Despite this, the teacher-pupil ratio remains below

[54] Monitoring of Results for Equity Systems 2011, UNICEF, NY.

[55] Ministry of Education, Grade 8 examination results analysis 2004/2005.

[56] Education for All Assessment Report 2000, Ministry of Education - Sudan.

the national standard (1:40) as outlined in the Baseline Survey on Basic Education in 2008. Regional variations in the teacher-pupil ratio indicate that the distribution of teachers is not equitable. Moreover, the shortage of trained teachers has affected the quality of teaching. Subsequently, the equality of the education system is affected and has resulted in many children out of school. Teachers are often unwilling to serve in remote rural and nomadic areas, which may contribute to the high number of out-of-school children in these places. This is one of the problems underlying inefficient and imbalanced teacher deployment across urban, rural and nomadic schools. Efforts need to be made to balance the distribution of teachers, particularly in favour of South Kordofan and the three Darfur states, as they have the highest ratios of pupils per teacher. The reluctance of teachers to serve in the conflict-affected areas of the three Darfur states may exacerbate the current situation. Furthermore, due to the urgent needs of filling the gaps and the low recruitment of teachers, communities have opted to use volunteer, untrained teachers. Incentives to encourage the placement of female teachers in remote rural areas to serve as role models for girls should be explored. In the absence of adequate numbers of teachers, alternative learning opportunities such as through community radio and web-based opportunities should also be considered.

Table 3.4 Pupil-teacher ratio per state

State	Ratio (students/per teacher)
Northern	20
River Nile	22
Red Sea	35
Kassala	33
Gedarif	35
Khartoum	26
Algazeera	27
White Nile	30
Sinnar	31
Blue Nile	31
North Kordofan	38
South Kordofan	41
North Darfur	40
West Darfur	53
South Darfur	42
Total	**34**

Source: Baseline Survey on Education in the Northern States 2008.

3.5.2.3 Curriculum

The Development Education Report 2004, prepared by the Education Planning Directorate, indicates that the curriculum is divided into three cycles for compulsory primary education. The first cycle extends from Grade 1 to 3. It aims to familiarize children with their social surroundings. The second cycle extends from Grade 4 to 6. This cycle represents the entry into the perception stage. Emphasis is placed on the use of language skills to gain knowledge from various sources to enable interaction with the environment and society. The third cycle, for Grades 7 and 8, complements basic education. It aims to encourage positive interaction between pupils, society and the environment. The quality of education measured by the proxy indicators is the learning achievement assessment at the end of the cycle. If other variables remain constant, the quality can be indirectly measured through the retention rate, completion and dropout rates and other efficiency indicators.

3.5.2.4 Poor enabling learning conditions

An effective learning process depends on many interrelated factors such as the number of instructional hours available, capability of the teaching force, classroom climate, and school leadership and management. Sustained pupil/teacher contact time is an important determinant of quality, as it is known to improve learning outcomes. In Sudan, the official number of school days is 210. The Baseline Survey on Basic Education 2008 shows that in academic year 2006-07, only 46 per cent of schools fulfilled the official number of school days while 53.9 per cent did not. This may be attributed to a number of reasons including conflicts, nomadic living, natural disasters, training and examination of teachers attending the Open University programme or other learning opportunities, and engagement in farming and animal husbandry. The same survey found that many basic education teachers lack teaching and classroom management skills. Teachers depend on one-way communication, often in large and crowded classrooms with minimal learning aids. Moreover, 31.8 per cent of schools encourage corporal punishment, implying that these schools are not implementing the policy on corporal punishment. More effective policy implementation is therefore needed. High levels of teacher and pupil absenteeism, evident in many schools in Sudan, have multiple causes affecting children's participation in education.

3.5.2.5 Poor evidence of education outcomes

Families are likely to keep their children in school if they are satisfied with their child's learning achievement. The Baseline Survey on Basic Education 2008 shows that interviews with parents revealed a level of frustration with the education system. According to them, few or no advantages – social and economic – accrue from the many years and investment in education. Although they indicated that education is good, a number of those interviewed were hard pressed to remember the benefits of education. For a number of the parents, the difference between children who had been to school and those who had not been to school was not evident, especially in rural and nomadic areas. Many children in basic schools reportedly do not have attitudes that distinguish them from those who have never been to school, putting into question the benefits of attending. Expressed by parents, these sentiments are likely to be a barrier to schooling. Addressing this frustration is important for enlisting the support of the most critical group of stakeholders in education – the community.[57]

The research team identified additional potential barriers to education that should be explored through further research, which include language of instruction, sexual harassment, and punishment and discrimination of minorities.

[57] Survey The Baseline Survey on Basic Education in Sudan 2008.

4 Recommendations and conclusions

4.1 Overview

As highlighted in Chapter 2, Sudan has a total of 7.9 million children aged 5-13 years old, of whom 6,991,977 are basic school-aged children (6-13 years) and 979,885 preschool-aged children (5 years old), according to EMIS data. In the past few years, Sudan has made progressive improvement in strengthening the education system and enrolling more children in school, brought about by a gradual increase in investments by government and partners in education as well as increased private sector participation. Education policies and strategies have been developed in line with the MDG targets and other international education commitments. Education policies and strategies have been incorporated into national strategic plans.

In spite of all efforts towards universal primary education, Sudan reports a high number of out-of-school children. Analysis of EMIS data shows that over 3 million children aged 5-13 years at primary and lower secondary level and 490,693 five-year-old children at preschool level are currently out of school in Sudan, with wide disparities between the states. Primary school-aged children (6-11 years) constitute 63 per cent of out-of-school children, lower secondary (12-13 years) 21 per cent, and preschool (5 years old) 16 per cent. The majority of out-of-school children are in rural areas, nomadic communities, internally displaced populations and children with disabilities. The study identified several challenges that constrain children's participation in education such as inequitable access to educational opportunities, ineffective policy, low household income, inadequate government investment in education, inefficiency in the education system, poor quality of education, unfriendly school environment illiteracy among youth and adults, especially women, and social and cultural barriers. These bottlenecks to school participation can be put in three categories: school-based, household-based and educational policies/institutional factors.

The phenomenon of out-of-school children in Sudan is a social, economic, political and educational problem, requiring a comprehensive programme that addresses the bottlenecks across the Five Dimensions of Exclusion. The following recommendations are suggested in light of the study findings on the characteristics of excluded groups of children, the barriers they face in attending school and the major gaps in the current education policy and strategies, as well as their implications. The recommendations take into consideration ways to address the barriers to school participation in the four determinants: enabling environment, supply, demand and quality.

4.2 Enabling environment recommendations

The study has shown that there is low funding and financing of basic and preschool education, and inadequate macro-economic policies for equal distribution of wealth. Several policies are not being effectively implemented. There are also information gaps, weak education monitoring and evaluation systems, as well as a lack of an effective child protection system. There are opportunities for strengthening existing programmes through the following recommendations.

4.2.1 Increase public spending on basic education and preschool.

The government needs to ensure a sustainable increase in the financing of basic education. The current public spending would not be sufficient for the interventions needed to address the problem of out-of-school children. Considering the number, diversity and scale of challenges to be mitigated for over 3 million out-of-school children, additional public financing to education along with a more efficient allocation of resources between states is critical. Other sources such as private sector, donor and NGO support should be more equitably distributed based on agreed guidelines and indicators to complement government and PTAs non-salary investment. Establish monitoring management mechanisms to better manage resources and ensure the regular flow of funding from financial government institutions, donors and private sector. This will ensure that funds are efficiently used to address out-of-school children priorities. Specific examples include expenditure tracking surveys, budget transparency and annual review on education spending to monitor and evaluate progress by assessing planned versus utilized budget, disaggregated by urban-rural, level of schooling and geographic location.

4.2.2 Strengthen locality institutional capacity in planning, management and implementation to allow for effective education programmes that ensure equitable education opportunities and reduce children's exclusion and disparities among the poor.

Since preschool and basic education in Sudan is under the responsibility of localities, each locality has to be supported to develop an evidence-based education plan that reflects increased educational opportunities for out-of-school children. Such a plan should promote explicit objectives, practical strategies, coordinated action and large-scale integrated programming and financing mechanisms in line with the on-going community participation strategy and guided by a well-designed school improvement plan. This will not be realized without proper deployment, training and capacity building for education officials at state and locality level, and commitment and the allocation of necessary resources. The locality plans should feed into state-level plans and then into the national education sector-wide plan. Sector plans should include appropriate strategies and resource provision considering external support, such as GPE and other non-state actors, to improve equitable educational opportunities for excluded children.

4.2.3 Continue to strengthen the on-going EMIS and improve the use of other information systems that provide data on school participation and exclusion to complement EMIS data.

Chapter 2 highlighted some of the limitations of data sources and information gaps. The first step to having better administrative and school data is to upgrade the existing EMIS through the installation of user-friendly software, allocation of well-trained staff, establishment of EMIS labs at the locality level and creation of an effective monitoring and quality assurance system for timely and quality data production. As a second step, it is important to add relevant indicators to EMIS to monitor out-of-school children situations as per the Global OOSCI Conceptual and Methodological Framework discussed in this study as well as against international best practices. Also, the type and quality of data collected on the education of children in nomad communities should

be improved. The third step is to integrate data on non-formal and ALP into EMIS and use these in the calculations access and coverage indicators to better inform policy-making. The fourth and final step is for the MoE to regularly use and analyse household survey data on education and other relevant surveys and studies to complement EMIS data when designing policies, planning and supporting out-of-school children to access quality education.

4.2.4 Support research programmes in the educational sector.

By filling important information gaps, findings from this OOSCI research should help to inform the policy debate on how best to mitigate school exclusion in the region. The study identified data gaps and raised a number of research questions related to school participation and recommends the following priority areas for research:

- Late entry to basic school is common in rural areas and nomadic communities. It would be useful to understand the main reasons behind this and the implications for retention.
- Impact of preschool attendance in school participation and child performance in primary education and retention.
- Participation of nomadic children in school. These children are one of the most excluded groups and comparatively difficult to track, therefore, some basic research is needed to establish their profiles and to understand the factors preventing these children from accessing education and staying in school.
- Study on how parents perceive the quality of education and what type of improvements in schooling impact positively on enrolment, retention and learning achievement in primary and lower secondary school.

4.2.5 Adopt and implement a multi-sector interventions approach that coordinates different sectors to address multiple schooling barriers.

Out-of-school children in Sudan often face numerous and reinforcing barriers that are unable to be addressed by single interventions. It is recommended that the MoE at federal and state levels initiate a coordination forum to strengthen joint programming with other sectors to mitigate barriers that cannot be dealt with by the education sector alone. Cross-sectorial interventions at the school level (including health, water and sanitation, social welfare, finance and civil society under MoE leadership) is urgently needed to support children's education and to use the school as an entry point for providing community services, particularly in rural and nomadic areas. With clear policy guidance, this forum could contribute to advocacy, provision of data, partnership building and resource mobilization.

4.2.6 Bridging the gap between policy formulation and implementation, and establishing follow up mechanisms.

The implementation of education policies is constrained by a lack of resources. The MoE needs to develop a policy on resource mobilization for education. It also needs to enforce the execution of free and compulsory education policy and pre-school policy to have a kindergarten attached to every basic school. The availability of kindergartens close to home encourages mothers to send young children there for day care. This frees girls, who would normally care for younger children, to attend and stay in school.

4.3 Demand side recommendations

Sociocultural barriers, combined with economic factors, have an impact on children's access and retention in school. On the demand side, the major bottlenecks are the social attitudes towards girl's education, multiple barriers to nomadic education, lack of security, emergency situations, low family income, high school fees and widespread poverty. Some of these factors either affect enrolment or school dropout, or both, while some affect only one particular gender. Four key recommendations arise from the analysis of education demand bottlenecks.

4.3.1 Improve and scale up the enrolment campaign to remove the sociocultural barriers to school participation.

Communities should be mobilized through community-wide sensitization and enrolment campaigns. Communities should participate in rights-based participatory analysis, planning and community action to address cultural barriers to schooling, including gender-based violence. The major barriers to be addressed include male child preference, early marriage, a lack of information on the likely returns of education, social norms related to schooling and child labour, and social neglect of marginalized children (e.g. children with disabilities). These analyses will not only provide information for planning, but will tackle parental attitudes and practices that impact negatively on child participation in education.

Based on these analyses, women, men, girls and boys should be assisted and motivated to implement actions to combat cultural barriers. The campaign should make use of community leaders and other respected persons with the relevant training, qualifications and experience to speak to parents and communities at public forums about the importance of education. The use of the mass media for the purposes of sensitization and advocacy was also suggested. This demand for education strategy should be complemented by an education supply strategy to respond to the increasing demand for education, especially in low enrolment areas and nomadic communities. Education partners and civil society should be encouraged by the MoE to participate effectively in the planning and implementation of the enrolment campaign.

4.3.2 Promote community involvement and participation in school activities.

Parents have a role to play to send their children to school, provide for their basic needs such as stationery, school uniforms and school breakfasts. In Sudan, communities through PTAs provide significant support to schools. It is recommended that parents and the communities be encouraged to become more involved in the school and academic activities of their children. They should be sensitized to the importance of their involvement in these activities. This could be done by encouraging schools to adopt an 'open-door' policy which would encourage parents to visit the school as often as they wished to discuss their children's progress. Organizing sports or cultural competitions within and between schools is one way of encouraging communities to feel that they are part of the education process of their children. Parents with the ability to help their children in their work should be encouraged to do so, especially at home.

4.3.3 Reducing and gradually eliminating the high school costs/fees of education.

The cost of education is one of the main reasons depriving children of poor families of their right to education. One recommendation is that the government meets its obligation and commitment to providing free and compulsory education to all children by taking charge of all of schooling expenditure and increasing the teachers' salaries. Currently, these costs, in almost all of the Sudanese states, are largely met by the

communities' 'teacher incentives'. The government needs to consider allocating a small budget to schools to meet daily needs, benefiting from the school grant experience initiated by GPE in basic schools in Sudan. Alternatively, school authorities, in consultation with PTAs, should explore and implement flexible arrangements for the payment of school fees, for example, allowing parents to work for the school or pay the school in the form of agricultural or other products, which could then be sold or used by the school. Another recommendation is that communities should be supported through micro-credit schemes to start income-generating activities, which would provide more disposable income to families and enable them to support their children in school. Another option is to provide financial support in the form of scholarships and bursaries aimed at keeping girls, nomadic children, internally displaced children and children with disabilities from disadvantaged families in school.

4.3.4 Explore options and enforce laws to reduce child labour.

Labour legislation should be implemented effectively to prohibit child labour and hazardous employment in the formal sector as well as in the informal sector. It is also suggested that efforts should be made to provide communities that rely heavily on child labour with labour saving technology and use other strategies to reduce the amount of time children, especially girls, spend on household duties. The provision of boreholes in areas where girls used to travel long distances to collect water is one example where UNICEF has made some impact on increasing girls' study time.

4.4 Supply side recommendations

Analysis of the characteristics of out-of-school children and their issues reveal a wide range of supply-side barriers seen in the poor education infrastructure, severe shortage of textbooks, poor school environment and lack of teacher availability. These factors are related to the risk of dropping out and also constrain enrolment for some children, particularly nomadic children and rural girls.

4.4.1 Continue constructing/opening new schools with preschool facilities in low enrolment areas as a strategy to invest in excluded children.

Improve education infrastructure through the establishment of new facilities and the rehabilitation of certain schools based on a school mapping exercise. New investment should target areas where the need is greatest and children are likely to never enter school, taking into account demand-side factors. This will help in improving the equitable distribution of resources within the education system. The government should continue opening more schools for nomadic children and establish subsidized boarding schools in selected nomadic areas. This will play a large role in the education of nomadic children (especially beyond Grade 4). Subsidized boarding schools for nomadic children should be offered at a lower cost and be more easily accessible.

4.4.2 More investment in preschool and ECD.

Considering the importance of pre-primary education in the development of young children, there is an urgent need to improve the quality of preschool teachers and the conditions of service for preschool teachers. Improvements are also needed in the infrastructural facilities provided in early childhood development (ECD) centres, and in develop policies and systems to enable nomadic children to access preschool/ECD services.

4.4.3 Accelerate the implementation of the Child-Friendly School Standards to promote learner-friendly school environments and contribute to education quality.

The first critical step in ensuring child-friendly learning spaces is a strict monitoring system for teachers, school authorities and local leadership to take responsibility for making schools attractive to the student and their parents. This calls for creativity and, if well-coordinated, will cost very little in terms of central financing as parents, pupils and their communities can be mobilized to participate in the development of environments that are learner-friendly. This strategy should be linked with the ongoing education-focused construction projects such as GPE and EU funded projects.

4.4.4 Promote and improve the ongoing development of ALP learning spaces, facilitators' recruitment, management, monitoring and linkages with the basic education system.

The provision of these alternative routes to acquiring education, especially among nomadic populations and in rural areas, is a major benefit for the education system in Sudan. However, children under a certain age should be encouraged to stay in formal school for as long as possible.

4.4.5 Pilot and evaluate an e-learning programme targeting excluded children.

Educational media has been used elsewhere in the world to increase access to education. It has also been used in helping a process of curriculum change. In principle, the use of digital media and radio should widen and provide access to learners who would otherwise be deprived of education. There is evidence of qualitative improvement from programmes using distance education for teacher training and using of broadcasts in the classroom. It is recommended that this avenue of learning be pursued more aggressively.

4.5 Recommendations on quality

The major bottlenecks for out-of-school children related to quality of education are a severe shortage of qualified teachers, poor learning conditions, weak curriculum and poor evidence of learning outcomes, in addition, other bottlenecks that need more investigation are language of instruction, child discipline and discrimination. The following recommendations were suggested.

4.5.1 Improved teachers' remuneration policy.

Improving teachers' management system in terms of recruitment, deployment, utilization, remuneration and supervision is critical to the efficiency and performance of the education sector. Improvements could be made through mapping of human resources and school needs for teachers, and adopting fair distribution criteria guided by a teachers' management and development strategies.

4.5.2 Support the supply of textbooks to children in basic school, including preschool.

Studies revealed that having textbooks can reduce differences between the performance of rural and urban students, and can also improve the performance of students from poorer backgrounds. With partners' support, establish a central fund for the printing and distribution of textbooks for at least five years to bridge the gap in textbooks and then gradually hand it over to the state. Priority should be given to rural areas, nomadic schools and poor performing areas in urban centres.

Create enabling learning conditions. Within the Child-Friendly School framework, efforts should be made to make classrooms safe, child friendly, and equipped with the necessary teaching aids and adequate seating. It is also important to train teachers to adopt a child-centred learning approach and increase teacher-student contact time to promote learning achievements. Ensure periodic learning assessments to measure learning achievements and to identify areas for improvement.

4.5.3 Curriculum review and improvement.

This is one the important determinants of the quality of education and has a direct impact on learning outcomes. Scholars, scientists and education experts from research institutions should review the curriculum to make sure that it develops usable skills and increased capacity of human resources, and creates greater potential for the nation's advancement. The recent government decision of adding an additional year to basic education provides an opportunity for curriculum review and further improvement, taking into consideration international experience and the current education needs of Sudanese children.

4.6 Conclusions

- **Launch and disseminate the findings and recommendations of the OOSCI study.** The findings of the study will be disseminated in a workshop in the presence of senior government officials, partners and civil society organizations with full media coverage. This will raise awareness of the challenges faced by out-of-school children in Sudan and provide guidance on how these challenges could be addressed by all stakeholders.

- **Establish a coordination forum, under the custody of the MoE, to follow up on the implementation of the recommendations, build partnerships and track out-of-school children**. It is clear that the issue of out-of-school children cannot be tackled in isolation and that a multi-sectorial approach is needed. The involvement of all the partners (such as relevant government institutions, UN agencies, NGOs, civil society organizations, the private sector, community-based organizations and the media) in coordination forums at different levels will increase opportunities to take an integrated approach to address the social, political, economic and educational components in one package. The national coordination forum will develop a plan to monitor the implementation of the recommendations.

- **Implement, through the MoE and education partners. a media campaign guided by a clear communications plan to advocate for the out-of-school children issues at different levels.** Using the media to disseminate the results of the out-of-school children study will inform the Sudanese Government of the situation of out-of-school children and alert the community to the issue of their exclusion from school. The media campaign provides an opportunity for civil society to play its critical role in empowering children, youths and parents so that they can claim their right to quality education. It may act as a catalyst toward a more inclusive education system, where children can participate equally and meaningfully regardless of poverty, disability, sex, ethnicity etc.

- Use the out-of-school study findings and results to inform ongoing education plans, sub-sector strategies, and resource mobilization and to update the out-of-school children education strategy. The new out-of-school children strategy should strengthen collaborative relationships between key ministries, partners and civil society to identify underserved areas and groups more precisely and to better expose the characteristics of out-of-school children to address school exclusion.

- We hope that future research will build on the methodology used in this report to provide further, deeper insights into the profiles of out-of-school children and children at risk of exclusion in Sudan.

References

Abdel Rahman E. El Dood Education of Nomadic Children in Sudan 2010.

Central Bureau of Statistics, Sudan. 2008 Sudan Population and Housing Census.

Central Bureau of Statistics. Sudan National Household Baseline Survey 2009.

Ministry of Education, Sudan. Education Planning Directorate, Development Education Report 2004.

Ministry of Education. Baseline Survey on Basic Education in the Northern States of Sudan 2008.

Ministry of Education in Collaboration with UNICEF. Girl Education Strategy 2009-2011.

Ministry of Education in collaboration with UNICEF. Evaluation of Nomadic Education Project in Kassala, Gedarif, Blue Nile, Sinnar, and White Nile States 2008.

Ministry of Education. Base Line Education Survey in Northern Sudan. Final Report 2008.

Ministry of Education. Education Annual Statistical Year Bulletin 2010.

Ministry of Education. Education Management Information System.

Ministry of Education. Sudan: Education for All Assessment Report 2000.

Ministry of Education and UNICEF. Investing in Girls' Education, Genera Equality and Empowerment the Attainment of Millennium Development Goals in the 15 Northern States 2009.

Ministry of Finance and National Economy, Khartoum, 2012. Interim Poverty Reduction Strategy.

Ministry of General Education in collaboration with UNICEF and UIS. Out-of-School Children Report 2011.

Ministry of Social Welfare, Women and Child Affairs, Sudan, March 2007. Women empowerment National policy.

National Council for Child Welfare (NCCW), Khartoum. Five-Year Plan for Child Welfare 2012-2016.

NCCW. National Strategy to Combat Child Violence (Arabic) 2010.

NCCW, Ministry of Education and UNICEF. Knowledge, Attitudes, and Practice (KAP) on Girls education.

NCCW and Ministry of Justice, Khartoum 2010. Child Law.

NCCW and UNICEF. Sudan Fit for Children Plan 2006-2015 (Arabic).

NCCW in Collaboration with UNICEF State of Sudanese Children 2011.

Omer Haroon. Special Educational Needs (SEN) in NK, El Gedarif. A thesis submitted, Research paper 2010.

Omer Hassan Saad. Rights of Disabled Children in Sudan, Khartoum 2010.

Sudan Household Health Survey 2006 and 2010. Federal Ministry of Health, Central Bureau of Statistics in collaboration with UN agencies.

Sudan Human Development Report 2010. Geography of Peace: Human Development as a Base for Peace in Sudan.

The Darfur Regional Authority. A Recovery & Reconstruction Strategy 2013-2019 (Pursuant to Article 31 of the Doha Document for Peace in Darfur-Darfur Joint Assessment Mission 2012).

UIS and UNICEF. Children Out of School; Measuring Exclusion from Primary Education 2005.

UNICEF. Monitoring of Results for Equity Systems, UNICEF.

UNICEF, MENA, Amman-Jordan. Equity for Children & Adolescence in Sudan Country Profile, 2011.

UNICEF, NY in Partnership with DevInfo, MICS, IDEALS and World Bank. Bridging the Gap: Role of monitoring and evaluation in evidence based policy. 2008.

United Nations Country Team. Sudan Country Analysis, 2012.

World Bank. Status of Education Sector in Sudan 2010 Report.

World Bank, UNICEF, UNESCO. Six Steps for Abolishing Primary School Fees. Operational Guide.

Annexes

Annex 1 Sources of data on out-of-school children: Example for administrative data

National Education Management Information System (EMIS), National Baseline Household Survey 2009 (NBHS2009), National Baseline Household Survey 2009 (NBHS2009) and the Fifth Population and Housing Census, 2008

Complete one form for each data source. Please attach the questionnaire, codebook and other information, if applicable.

Data source

National Education Management Information System

Agencies responsible for collection and dissemination of data

Division of Planning, Ministry of Education

Data collection date (not publication date)

March 2010

Frequency of data collection (for example, annual, every two years)

Annual

Definition of an out-of-school child (for example, is not enrolled, did not attend in the last three months)

A child who is not registered in school

Definitions of other education terms

School entrance age	A child who reached the age of 5 before 1 September
Enrolment	All children registered in school (available from the school census)
Attendance	All children attending school (available from the school attendance sheet)
Dropout	A child who stopped attending school during the school year
Educational attainment	The highest grade a person completed
Other relevant terms	Repeater: A student who enrolled in the same grade in the previous and current school year

Sample design and coverage of data collection (for example, national, specific geographic region, specific sub-population group)

National, but some conflict areas did not submit data (about 5% of national enrolment)

Smallest administrative area for which statistics on the out-of-school population are statistically accurate

School district

Types of disaggregation possible with data (for example, by age, sex, area, wealth quintile, socio-economic group, ethnicity, religion, type of school)

Age, sex, geographic region, type of school (public, private, NGO-run), grade, education level, with or without school grant, disability

Data availability and access (include information on type of data available and procedure to acquire the data)

The Planning Department maintains the database since 2005. Annual statistical reports are available at www.moe.gov.xx/schcensus/reports

Data limitations (coverage, accuracy)

In some cases, enrolment is likely to be inflated
Data on age-specific enrolment should be interpreted with caution
Due to the flood in 2009, data for provinces A and B are not available for the school year 2009-2010

Other information

Data source

National Baseline Household Survey 2009 (NBHS2009)

Agencies responsible for collection and dissemination of data

Central Bureau of Statistics (CBS)

Data collection date (not publication date)

17 May 2009 – 30 June 2009

Frequency of data collection (for example, annual, every two years)

Every four years since (Planned)

Definition of an out-of-school child (for example, is not enrolled, did not attend in the last three months)

(reference: survey manual)

Definitions of other education terms

School entrance age	Not used in the data collection (reference: survey manual)
Enrolment	Not applicable
Attendance	A child who attended school at any time during the current school year (reference: survey manual)
Dropout	A child who attended school during the previous school year but did not attend during the current school year (reference: survey manual)
Educational attainment	The highest educational level attended by a person (primary, intermediate, secondary, tertiary, *khalwa*)
Other relevant terms	

Sample design and coverage of data collection (for example, national, specific geographic region, specific sub-population group)

Nationally, State and Urban/rural representative survey.

Smallest administrative area for which statistics on the out-of-school population are statistically accurate

State level

Types of disaggregation possible with data (for example, by age, sex, area, wealth quintile, socio-economic group, ethnicity, religion, type of school)

Age group, sex, wealth quintile, urban/rural, education level

Data availability and access (include information on type of data available and procedure to acquire the data)

Individual-level data (without personal information) available from CBS upon request
Data available in SPSS
Survey report available at, Director General (Central Bureau of Statistics), dg@cbs.gov.sd
www.cbs.gov.sd

Data limitations (coverage, accuracy)

Due to insecurity situations in some parts of Darfur region: six clusters in South Darfur, three in North Darfur and one in West Darfur were replaced in the same geographical areas.

Other information

Questionnaire and Survey manual are attached.

Data source

Fifth Population and Housing Census, 2008

Agencies responsible for collection and dissemination of data

Central Bureau of Statistics (CBS)

Data collection date (not publication date)

22 April 2008 – 06 May 2008

Frequency of data collection (for example, annual, every two years)

The previous censuses were conducted in 1956, 1973, 1983 and 1993.

Definition of an out-of-school child (for example, is not enrolled, did not attend in the last three months)

Not applicable (reference: Census manual)

Definitions of other education terms

School entrance age	Not used in the data collection (reference: census manual)
Enrolment	Not applicable
Attendance	A child who attended school at any time during the current school year (reference: census manual)
Dropout	Not applicable
Educational attainment	The highest educational level attended by a person (primary, intermediate, secondary, tertiary, *khalwa*)
Other relevant terms	

Sample design and coverage of data collection (for example, national, specific geographic region, specific sub-population group)

Nationally State and Urban/rural representative.

Smallest administrative area for which statistics on the out-of-school population are statistically accurate

State level

Types of disaggregation possible with data (for example, by age, sex, area, wealth quintile, socio-economic group, ethnicity, religion, type of school)

Age, sex, urban/rural, education level (ref. Questionnaires)

Data availability and access (include information on type of data available and procedure to acquire the data)

Individual-level data (without personal information) available from CBS upon request
Data available in SPSS and CSPro format.
Census reports at State level and other analytical reports available at Director General (Central Bureau of Statistics), dg@cbs.gov.sd
www.cbs.gov.sd

Data limitations (coverage, accuracy)

The data were collected by using two types of questionnaires; Short Form Questionnaires (SFQ) and Long Form Questionnaires (LFQ), ref. census manual

Other information

Questionnaire and census manual are attached.

Data source

Sudan, Household Health Survey 2010 (SHHS2010) (MICS4)

Agencies responsible for collection and dissemination of data

Central Bureau of Statistics

Data collection date (not publication date)

March - May 2010

Frequency of data collection (for example, annual, every two years)

The previous SHH Surveys were conducted in 2000 and 2006

Definition of an out-of-school child (for example, is not enrolled, did not attend in the last three months)

(reference: survey manual)

Definitions of other education terms

School entrance age	Not used in the data collection (reference: survey manual)
Enrolment	Not applicable
Attendance	A child who attended school at any time during the current school year (reference: survey manual)
Dropout	A child who attended school during the previous school year but did not attend during the current school year (reference: survey manual)
Educational attainment	The highest educational level attended by a person (primary, secondary, tertiary)
Other relevant terms	

Sample design and coverage of data collection (for example, national, specific geographic region, specific sub-population group)

Nationally, state and urban/rural representative survey

Smallest administrative area for which statistics on the out-of-school population are statistically accurate

State level

Types of disaggregation possible with data (for example, by age, sex, area, wealth quintile, socio-economic group, ethnicity, religion, type of school)

Age group, sex, wealth quintile, urban/rural, education level

Data availability and access (include information on type of data available and procedure to acquire the data)

Individual-level data (without personal information) available from CBS upon request
Data available in SPSS
Survey report available at, Director General (Central Bureau of Statistics), dg@cbs.gov.sd
www.cbs.gov.sd

Data limitations (coverage, accuracy)

Other information

Questionnaire and tables with sampling errors are attached.

Annex 2 Data quality assessment worksheets by source

National Baseline Household Survey 2009 (NBHS2009) National Education Management Information System (EMIS) and National Baseline Household Survey 2009 (NBHS2009) Population Census, 2008

Sudan
Name of data source:

Sudan Household Health Survey (SHHS), 2010

Score Data source assessment criteria:
value

1. **Age: When were the data collected (not published)?**
   (1) ☐ 6-10 years ago (2003-2007)
   (2) ☒ 3-5 years ago (2008-2010)
   (3) ☐ Within the last 2 years (2011-present)

2. **Frequency: How often are the data collected? (Possibility of time series data)**
   (1) ☐ The data are from a one-time collection
   (2) ☒ The data are from a repeated or periodic collection (For example: every 3-5 years)
   (3) ☐ The data are from an annual or semi-annual collection

3. **Accuracy of age data: How are children's age data collected?**
   (1) ☐ Age data not reported
   (2) ☒ Age data for children are collected from the teacher or household respondent
   (3) ☐ Age data for children are collected from official records (birth certificate, etc.)

4. **Ease of access: What is the procedure to acquire access to the dataset in standard format for analysis (raw, unit level)?**
   (1) ☐ Data access procedure is time consuming and likelihood of access is uncertain
   (2) ☐ Data access procedure is time consuming and likelihood of access is certain
   (3) ☒ Data access procedure is not time consuming and likelihood of access is certain

5. **Software expertise required for data analysis: Is there sufficient capacity in the software generally used to analyse this data?**
   (1) ☐ Insufficient capacity
   (2) ☒ Some capacity or possibility of training or support
   (3) ☐ Sufficient capacity

6. **Purpose: To what extent was this data source designed to collect data on education? (Consider whether it includes a specific education module, coverage of appropriate age groups, sample design (if survey))**
   (1) ☐ Data collection not intended for generating education statistics (labour force, health, etc.)
   (2) ☒ Data collection is intended for generating statistics on education and other sectors (health and education)
   (3) ☐ Data collection primarily intended for generating education statistics

7. **Coverage of age data: For which ages are data on current school attendance collected?**
   (1) ☐ Primary and lower secondary age
   (2) ☐ Pre-primary to upper secondary age
   (3) ☒ Pre-primary to tertiary age

8. **Coverage of education levels: For which levels of education are attendance data collected?**
   (1) ☐ Primary education
   (2) ☒ Primary and secondary education
   (3) ☐ Pre-primary to tertiary education

9. **Coverage of educational institution types: Are data collected on (or do they include) all types of educational institutions in the country (Example: public, private, NGO, religious, community or unregistered schools)?**
   (1) ☐ Data collection excludes some important types of educational institutions
   (2) ☒ Data collection includes most types of educational institutions
   (3) ☐ Data collection includes all types of educational institutions

10. **Usefulness for disaggregated data analysis: What is the smallest administrative area for which the data source is designed to provide reliable and representative statistics on out-of-school children?**
   (1) ☐ National level only
   (2) ☒ Macro administrative region (for example, state or province) and area of residence (urban/rural)
   (3) ☐ Micro administrative region (for example, district or village)

11. **Usefulness for identifying characteristics of out-of-school children: To what extent is disaggregation (sub-national analysis) possible with this data source (for example, by age, sex, area, wealth, disability, ethnicity, region, and child labour status)?**
   (1) ☐ Limited disaggregation possible (for example, only by sex)
   (2) ☒ Some disaggregation possible, but some important groups are not available (for example, analysis by area of residence and wealth quintile is possible, but not ethnicity or disability)
   (3) ☐ Significant disaggregation possible, including most high priority groups (for example, by disability, child labour status, etc.)

Consider the definitions of the following key terms used in the data source:

- School participation (What is the definition of "in school"?)
- School dropout (What kind of school absence is considered "dropping out"?)
- Educational attainment
- Other relevant terms

12. **Consistency of education terms: How would you rate these terms on their consistency with standard international definitions? (UIS indicator and education term definitions can be found in Arabic, English and French in the UIS Glossary (www.uis.unesco.org/Pages/Glossary.aspx), and the UIS Global Education Digest)**
   (1) ☐ Very few education terms are consistent with standard definitions
   (2) ☒ Some education terms are consistent with standard definitions
   (3) ☐ Most education terms are consistent with standard definitions

13. **Comparability of education terms: How comparable are the definitions with other national data sources?**
   (1) ☐ Very few education terms are comparable with other national data sources
   (2) ☐ Some education terms are comparable with other national data sources
   (3) ☒ Most education terms are comparable with other national data sources

Additional criteria relevant to household survey data sources

14. **Data coverage of population of interest: To what extent has the data source considered coverage of disadvantaged groups in its data collection (sample design)?**
   (1) ☐ Sample design does not explicitly consider coverage of disadvantaged groups
   (2) ☒ Sample design considers coverage of some disadvantaged groups
   (3) ☐ Sample design considers coverage of many disadvantaged groups

15. **Consistency of age and school participation data: To what extent is there a time lag between the recorded age of children and the start month of the academic year? (In sources with long data collection periods, select the answer covering the majority of cases (>50%)).**
    (1) ☐ Age data are recorded more than 6 months after the start month of the school year (large gap)
    (2) ☒ Age data are recorded between 2 and 6 months after the start month of the school year (small gap)
    (3) ☐ Age data are recorded during the start month of the school year (no gap)

Are there any other advantages or limitations of this data source?

Survey data collected and analysed by involvement and participation of many partners

Total score:

73.3%

Data quality assessment worksheet

Sudan
Name of data source:

National Education Management Information System (EMIS)

Score Data source assessment criteria:
value

1. **Age: When were the data collected (not published)?**
    (1) ☐ 6-10 years ago (2003-2007)
    (2) ☒ 3-5 years ago (2008-2010)
    (3) ☐ Within the last 2 years (2011-present)

2. **Frequency: How often are the data collected? (Possibility of time series data)**
    (1) ☐ The data are from a one-time collection
    (2) ☐ The data are from a repeated or periodic collection (For example: every 3-5 years)
    (3) ☒ The data are from an annual or semi-annual collection

3. **Accuracy of age data: How are children's age data collected?**
    (1) ☐ Age data not reported
    (2) ☒ Age data for children are collected from the teacher or household respondent
    (3) ☐ Age data for children are collected from official records (birth certificate, etc.)

4. **Ease of access: What is the procedure to acquire access to the dataset in standard format for analysis (raw, unit level)?**
    (1) ☐ Data access procedure is time consuming and likelihood of access is uncertain
    (2) ☒ Data access procedure is time consuming and likelihood of access is certain
    (3) ☐ Data access procedure is not time consuming and likelihood of access is certain

5. **Software expertise required for data analysis: Is there sufficient capacity in the software generally used to analyse this data?**
    (1) ☐ Insufficient capacity
    (2) ☒ Some capacity or possibility of training or support
    (3) ☐ Sufficient capacity

6. **Purpose: To what extent was this data source designed to collect data on education? (Consider whether it includes a specific education module, coverage of appropriate age groups, sample design (if survey))**
   (1) ☐ Data collection not intended for generating education statistics (labour force, health, etc.)
   (2) ☐ Data collection is intended for generating statistics on education and other sectors (health and education)
   (3) ☒ Data collection primarily intended for generating education statistics

7. **Coverage of age data: For which ages are data on current school attendance collected?**
   (1) ☐ Primary and lower secondary age
   (2) ☒ Pre-primary to upper secondary age
   (3) ☐ Pre-primary to tertiary age

8. **Coverage of education levels: For which levels of education are attendance data collected?**
   (1) ☐ Primary education
   (2) ☐ Primary and secondary education
   (3) ☒ Pre-primary to tertiary education

9. **Coverage of educational institution types: Are data collected on (or do they include) all types of educational institutions in the country (Example: public, private, NGO, religious, community or unregistered schools)?**
   (1) ☐ Data collection excludes some important types of educational institutions
   (2) ☒ Data collection includes most types of educational institutions
   (3) ☐ Data collection includes all types of educational institutions

10. **Usefulness for disaggregated data analysis: What is the smallest administrative area for which the data source is designed to provide reliable and representative statistics on out-of-school children?**
   (1) ☐ National level only
   (2) ☒ Macro administrative region (for example, state or province) and area of residence (urban/rural)
   (3) ☐ Micro administrative region (for example, district or village)

11. **Usefulness for identifying characteristics of out-of-school children: To what extent is disaggregation (sub-national analysis) possible with this data source (for example, by age, sex, area, wealth, disability, ethnicity, region, and child labour status)?**
   (1) ☒ Limited disaggregation possible (for example, only by sex)
   (2) ☐ Some disaggregation possible, but some important groups are not available (for example, analysis by area of residence and wealth quintile is possible, but not ethnicity or disability)
   (3) ☐ Significant disaggregation possible, including most high priority groups (for example, by disability, child labour status, etc.)

Consider the definitions of the following key terms used in the data source:

- School participation (What is the definition of "in school"?)
- School dropout (What kind of school absence is considered "dropping out"?)
- Educational attainment
- Other relevant terms

12. **Consistency of education terms: How would you rate these terms on their consistency with standard international definitions? (UIS indicator and education term definitions can be found in Arabic, English and French in the UIS Glossary (www.uis.unesco.org/Pages/Glossary.aspx), and the UIS Global Education Digest)**
   (1) ☐ Very few education terms are consistent with standard definitions
   (2) ☐ Some education terms are consistent with standard definitions
   (3) ☒ Most education terms are consistent with standard definitions

13. Comparability of education terms: How comparable are the definitions with other national data sources?

(1) ☐ Very few education terms are comparable with other national data sources
(2) ☐ Some education terms are comparable with other national data sources
(3) ☒ Most education terms are comparable with other national data sources

Additional criteria relevant to household survey data sources

14. Data coverage of population of interest: To what extent has the data source considered coverage of disadvantaged groups in its data collection (sample design)?

(1) ☐ Sample design does not explicitly consider coverage of disadvantaged groups
(2) ☒ Sample design considers coverage of some disadvantaged groups
(3) ☐ Sample design considers coverage of many disadvantaged groups

15. Consistency of age and school participation data: To what extent is there a time lag between the recorded age of children and the start month of the academic year? (In sources with long data collection periods, select the answer covering the majority of cases (>50%)).

(1) ☐ Age data are recorded more than 6 months after the start month of the school year (large gap)
(2) ☒ Age data are recorded between 2 and 6 months after the start month of the school year (small gap)
(3) ☐ Age data are recorded during the start month of the school year (no gap)

Are there any other advantages or limitations of this data source?

Total score:

75.6%

Data quality assessment worksheet

Sudan
Name of data source:

National Baseline Household Survey 2009 (NBHS2009)

Score Data source assessment criteria:
value

1. Age: When were the data collected (not published)?

(1) ☐ 6-10 years ago (2003-2007)
(2) ☒ 3-5 years ago (2008-2010)
(3) ☐ Within the last 2 years (2011-present)

2. Frequency: How often are the data collected? (Possibility of time series data)

(1) ☐ The data are from a one-time collection
(2) ☒ The data are from a repeated or periodic collection (For example: every 3-5 years)
(3) ☐ The data are from an annual or semi-annual collection

3. **Accuracy of age data: How are children's age data collected?**
   (1) ☐ Age data not reported
   (2) ☒ Age data for children are collected from the teacher or household respondent
   (3) ☐ Age data for children are collected from official records (birth certificate, etc.)

4. **Ease of access: What is the procedure to acquire access to the dataset in standard format for analysis (raw, unit level)?**
   (1) ☐ Data access procedure is time consuming and likelihood of access is uncertain
   (2) ☐ Data access procedure is time consuming and likelihood of access is certain
   (3) ☒ Data access procedure is not time consuming and likelihood of access is certain

5. **Software expertise required for data analysis: Is there sufficient capacity in the software generally used to analyse this data?**
   (1) ☐ Insufficient capacity
   (2) ☒ Some capacity or possibility of training or support
   (3) ☐ Sufficient capacity

6. **Purpose: To what extent was this data source designed to collect data on education? (Consider whether it includes a specific education module, coverage of appropriate age groups, sample design (if survey))**
   (1) ☐ Data collection not intended for generating education statistics (labour force, health, etc.)
   (2) ☒ Data collection is intended for generating statistics on education and other sectors (health and education)
   (3) ☐ Data collection primarily intended for generating education statistics

7. **Coverage of age data: For which ages are data on current school attendance collected?**
   (1) ☒ Primary and lower secondary age
   (2) ☐ Pre-primary to upper secondary age
   (3) ☐ Pre-primary to tertiary age

8. **Coverage of education levels: For which levels of education are attendance data collected?**
   (1) ☐ Primary education
   (2) ☒ Primary and secondary education
   (3) ☐ Pre-primary to tertiary education

9. **Coverage of educational institution types: Are data collected on (or do they include) all types of educational institutions in the country (Example: public, private, NGO, religious, community or unregistered schools)?**
   (1) ☐ Data collection excludes some important types of educational institutions
   (2) ☒ Data collection includes most types of educational institutions
   (3) ☐ Data collection includes all types of educational institutions

10. **Usefulness for disaggregated data analysis: What is the smallest administrative area for which the data source is designed to provide reliable and representative statistics on out-of-school children?**
   (1) ☐ National level only
   (2) ☒ Macro administrative region (for example, state or province) and area of residence (urban/rural)
   (3) ☐ Micro administrative region (for example, district or village)

11. Usefulness for identifying characteristics of out-of-school children: To what extent is disaggregation (sub-national analysis) possible with this data source (for example, by age, sex, area, wealth, disability, ethnicity, region, and child labour status)?

(1) ☐ Limited disaggregation possible (for example, only by sex)

(2) ☒ Some disaggregation possible, but some important groups are not available (for example, analysis by area of residence and wealth quintile is possible, but not ethnicity or disability)

(3) ☐ Significant disaggregation possible, including most high priority groups (for example, by disability, child labour status, etc.)

Consider the definitions of the following key terms used in the data source:

- School participation (What is the definition of "in school"?)
- School dropout (What kind of school absence is considered "dropping out"?)
- Educational attainment
- Other relevant terms

12. Consistency of education terms: How would you rate these terms on their consistency with standard international definitions? (UIS indicator and education term definitions can be found in Arabic, English and French in the UIS Glossary (www.uis.unesco.org/Pages/Glossary.aspx), and the UIS Global Education Digest)

(1) ☐ Very few education terms are consistent with standard definitions

(2) ☒ Some education terms are consistent with standard definitions

(3) ☐ Most education terms are consistent with standard definitions

13. Comparability of education terms: How comparable are the definitions with other national data sources?

(1) ☐ Very few education terms are comparable with other national data sources

(2) ☐ Some education terms are comparable with other national data sources

(3) ☒ Most education terms are comparable with other national data sources

Additional criteria relevant to household survey data sources

14. Data coverage of population of interest: To what extent has the data source considered coverage of disadvantaged groups in its data collection (sample design)?

(1) ☒ Sample design does not explicitly consider coverage of disadvantaged groups

(2) ☐ Sample design considers coverage of some disadvantaged groups

(3) ☐ Sample design considers coverage of many disadvantaged groups

15. Consistency of age and school participation data: To what extent is there a time lag between the recorded age of children and the start month of the academic year? (In sources with long data collection periods, select the answer covering the majority of cases (>50%)).

(1) ☒ Age data are recorded more than 6 months after the start month of the school year (large gap)

(2) ☐ Age data are recorded between 2 and 6 months after the start month of the school year (small gap)

(3) ☐ Age data are recorded during the start month of the school year (no gap)

Are there any other advantages or limitations of this data source?

Total score:

62.2%

Data quality assessment worksheet

Sudan
Name of data source:

Fifth Population and Housing Census, 2008

Score Data source assessment criteria:
value

1. **Age: When were the data collected (not published)?**
   (1) ☐ 6-10 years ago (2003-2007)
   (2) ☒ 3-5 years ago (2008-2010)
   (3) ☐ Within the last 2 years (2011-present)

2. **Frequency: How often are the data collected? (Possibility of time series data)**
   (1) ☐ The data are from a one-time collection
   (2) ☒ The data are from a repeated or periodic collection (For example: every 3-5 years)
   (3) ☐ The data are from an annual or semi-annual collection

3. **Accuracy of age data: How are children's age data collected?**
   (1) ☐ Age data not reported
   (2) ☒ Age data for children are collected from the teacher or household respondent
   (3) ☐ Age data for children are collected from official records (birth certificate, etc.)

4. **Ease of access: What is the procedure to acquire access to the dataset in standard format for analysis (raw, unit level)?**
   (1) ☐ Data access procedure is time consuming and likelihood of access is uncertain
   (2) ☐ Data access procedure is time consuming and likelihood of access is certain
   (3) ☒ Data access procedure is not time consuming and likelihood of access is certain

5. **Software expertise required for data analysis: Is there sufficient capacity in the software generally used to analyse this data?**
   (1) ☐ Insufficient capacity
   (2) ☒ Some capacity or possibility of training or support
   (3) ☐ Sufficient capacity

6. **Purpose: To what extent was this data source designed to collect data on education? (Consider whether it includes a specific education module, coverage of appropriate age groups, sample design (if survey))**
   (1) ☒ Data collection not intended for generating education statistics (labour force, health, etc.)
   (2) ☐ Data collection is intended for generating statistics on education and other sectors (health and education)
   (3) ☐ Data collection primarily intended for generating education statistics

7. **Coverage of age data: For which ages are data on current school attendance collected?**
   (1) ☒ Primary and lower secondary age
   (2) ☐ Pre-primary to upper secondary age
   (3) ☐ Pre-primary to tertiary age

8. **Coverage of education levels: For which levels of education are attendance data collected?**
   (1) ☐ Primary education
   (2) ☒ Primary and secondary education
   (3) ☐ Pre-primary to tertiary education

9. **Coverage of educational institution types: Are data collected on (or do they include) all types of educational institutions in the country (Example: public, private, NGO, religious, community or unregistered schools)?**
   (1) ☐ Data collection excludes some important types of educational institutions
   (2) ☐ Data collection includes most types of educational institutions
   (3) ☒ Data collection includes all types of educational institutions

10. **Usefulness for disaggregated data analysis: What is the smallest administrative area for which the data source is designed to provide reliable and representative statistics on out-of-school children?**
   (1) ☐ National level only
   (2) ☒ Macro administrative region (for example, state or province) and area of residence (urban/rural)
   (3) ☐ Micro administrative region (for example, district or village)

11. **Usefulness for identifying characteristics of out-of-school children: To what extent is disaggregation (sub-national analysis) possible with this data source (for example, by age, sex, area, wealth, disability, ethnicity, region, and child labour status)?**
   (1) ☐ Limited disaggregation possible (for example, only by sex)
   (2) ☒ Some disaggregation possible, but some important groups are not available (for example, analysis by area of residence and wealth quintile is possible, but not ethnicity or disability)
   (3) ☐ Significant disaggregation possible, including most high priority groups (for example, by disability, child labour status, etc.)

Consider the definitions of the following key terms used in the data source:

- School participation (What is the definition of "in school"?)
- School dropout (What kind of school absence is considered "dropping out"?)
- Educational attainment
- Other relevant terms

12. **Consistency of education terms: How would you rate these terms on their consistency with standard international definitions? (UIS indicator and education term definitions can be found in Arabic, English and French in the UIS Glossary (www.uis.unesco.org/Pages/Glossary.aspx), and the UIS Global Education Digest)**
   (1) ☐ Very few education terms are consistent with standard definitions
   (2) ☒ Some education terms are consistent with standard definitions
   (3) ☐ Most education terms are consistent with standard definitions

13. **Comparability of education terms: How comparable are the definitions with other national data sources?**
   (1) ☐ Very few education terms are comparable with other national data sources
   (2) ☐ Some education terms are comparable with other national data sources
   (3) ☒ Most education terms are comparable with other national data sources

Additional criteria relevant to household survey data sources

14. **Data coverage of population of interest: To what extent has the data source considered coverage of disadvantaged groups in its data collection (sample design)?**
   (1) ☐ Sample design does not explicitly consider coverage of disadvantaged groups
   (2) ☒ Sample design considers coverage of some disadvantaged groups
   (3) ☐ Sample design considers coverage of many disadvantaged groups

15. Consistency of age and school participation data: To what extent is there a time lag between the recorded age of children and the start month of the academic year? (In sources with long data collection periods, select the answer covering the majority of cases (>50%)).

(1) ☒ Age data are recorded more than 6 months after the start month of the school year (large gap)

(2) ☐ Age data are recorded between 2 and 6 months after the start month of the school year (small gap)

(3) ☐ Age data are recorded during the start month of the school year (no gap)

Are there any other advantages or limitations of this data source?

Total score:

66.7%

Annex 3 Out-of-school children indicators, definitions and statistics tables

Annex 3.1.1 Out-of-school children indicators by source, girls

Indicator	Census nomads (2008)	Census (urban and rural) (2008)	NBHS (2009)	SHHS2 (2010)	EMIS (2010)
Girls					
Pupils of the official school age enrolled in pre-primary	0	147,053	175,331	183,671	183,671
Population of the official school, pre-primary	44,960	439,968	462,449	506,178	480,892
Net enrolment rate, pre-primary	0.0%	33.4%	37.9%	36.3%	38.2%
Pupils of pre-primary official school age enrolled in primary	0	0	0	19,867	55,277
Adjusted net enrolment rate, pre-primary	0.0%	33.4%	37.9%	40.2%	49.7%
Pupils of the official school age enrolled in primary	30,926	1,151,222	1,244,127	1,545,128	1,563,579
Population of the official school, primary	235,774	2,213,888	2,237,215	2,594,745	2,628,666
Net enrolment rate, primary	13.1%	52.0%	55.6%	59.5%	59.5%
Pupils of primary official school age enrolled in secondary 1	0	0	15,091	10,142	24,527
Adjusted net enrolment rate, primary	13.1%	52.0%	56.3%	59.9%	60.4%
Pupils of the official school age enrolled in secondary 1	1,945	151,706	145,315	195,952	211,298
Population of the official school, secondary 1	61,564	697,905	710,800	827,757	778,421
Net enrolment rate, secondary 1	3.2%	21.7%	20.4%	23.7%	27.1%
Pupils of secondary 1 official school age enrolled in primary	4,697	231,673	177,054	443,190	202,016
Pupils of secondary 1 official school age enrolled in secondary 2	0	0	16,846	4,323	36,161
Adjusted net enrolment rate, secondary 1	10.8%	54.9%	47.7%	77.7%	57.7%
Rate of out-of-school children, pre-primary school age	**100.0%**	**66.6%**	**62.1%**	**59.8%**	**50.3%**
Number of out-of-school children, pre-primary school age	44,960	292,915	287,118	302,640	241,944
Rate of out-of-school children, primary school age	**86.9%**	**48.0%**	**43.7%**	**40.1%**	**39.6%**
Number of out-of-school children, primary school age	204,848	1,062,667	977,997	1,039,475	1,040,560
Rate of out-of-school, secondary 1 school age	**89.2%**	**45.1%**	**52.3%**	**22.3%**	**42.3%**
Number of out-of-school children, secondary 1 school age	54,922	314,525	371,585	184,293	328,946

Annex 3.1.2 Out-of-school children indicators by source, boys

Indicator	Census nomads (2008)	Census (urban and rural) (2008)	NBHS (2009)	SHHS2 (2010)	EMIS (2010)
Boys					
Pupils of the official school age enrolled in pre-primary	0	147,735	201,296	186,869	186,869
Population of the official school, pre-primary	55,241	462,925	493,741	520,029	498,993
Net enrolment rate, pre-primary	0.0%	31.9%	40.8%	35.9%	37.4%
Pupils of pre-primary official school age enrolled in primary	0	0	0	14,177	63,395
Adjusted net enrolment rate, pre-primary	0.0%	31.9%	40.8%	38.7%	50.2%
Pupils of the official school age enrolled in primary	48,387	1,287,310	1,400,145	1,654,958	1,802,762
Population of the official school, primary	312,907	2,358,522	2,436,056	2,659,017	2,756,505
Net enrolment rate, primary	15.5%	54.6%	57.5%	62.2%	65.4%
Pupils of primary official school age enrolled in secondary 1	0	0	20,906	10,542	29,235
Adjusted net enrolment rate, primary	15.5%	54.6%	58.3%	62.6%	66.5%
Pupils of the official school age enrolled in secondary 1	3,390	157,097	200,687	170,420	237,156
Population of the official school, secondary 1	91,310	777,553	842,706	838,602	828,385
Net enrolment rate, secondary 1	3.7%	20.2%	23.8%	20.3%	28.6%
Population secondary 1 primary	8,436	287,616	218,625	514,358	241,899
Pupils of secondary 1 official school age enrolled in secondary 2	0	0	9,778	4,323	36,689
Adjusted net enrolment rate, secondary 1	13.0%	57.2%	50.9%	82.2%	62.3%
Rate of out-of-school children, pre-primary school age	**100.0%**	**68.1%**	**59.2%**	**61.3%**	**49.8%**
Number of our-of-school children, pre-primary school age	55,241	315,190	292,445	318,983	248,729
Rate of out-of-school children, primary school age	**84.5%**	**45.4%**	**41.7%**	**37.4%**	**33.5%**
Number of out-of-school children, primary school age	264,521	1,071,212	1,015,005	993,516	924,508
Rate of out-of-school children, secondary 1 school age	**87.0%**	**42.8%**	**49.1%**	**17.8%**	**37.7%**
Number of out-of-school children, secondary 1 school age	79,485	332,840	413,616	149,502	312,641

Annex 3.1.3 Out-of-school indicators by source, total girls and boys

Indicator	Census nomads (2008)	Census (urban and rural) (2008)	NBHS (2009)	SHHS2 (2010)	EMIS (2010)
Total					
Pupils of the official school age enrolled in pre-primary	0	294,788	376,627	370,540	370,540
Population of the official school, pre-primary	100,201	902,892	956,190	1,026,207	979,885
Net enrolment rate, pre-primary	0.0%	32.6%	39.4%	36.1%	37.8%
Pupils of pre-primary official school age enrolled in primary	0	0	0	34,044	118,672
Adjusted net enrolment rate, pre-primary	0.0%	32.6%	39.4%	39.4%	49.9%
Pupils of the official school age enrolled in primary	79,312	2,438,531	2,644,272	3,200,087	3,366,341
Population of the official school, primary	548,681	4,572,410	4,673,271	5,253,762	5,385,171
Net enrolment rate, primary	14.5%	53.3%	56.6%	60.9%	62.5%
Pupils of primary official school age enrolled in secondary 1	0	0	35,997	20,684	53,762
Adjusted net enrolment rate, primary	14.5%	53.3%	57.4%	61.3%	63.5%
Pupils of the official school age enrolled in secondary 1	5,335	308,803	346,002	366,372	448,454
Population of the official school, secondary 1	152,875	1,475,457	1,553,506	1,666,359	1,606,806
Net enrolment rate, secondary 1	3.5%	20.9%	22.3%	22.0%	27.9%
Pupils of secondary 1 official school age enrolled in primary	13,133	519,289	395,679	957,548	443,915
Pupils of secondary 1 official school age enrolled in secondary 2	0	0	26,624	8,645	72,850
Adjusted net enrolment rate, secondary 1	12.1%	56.1%	49.5%	80.0%	60.1%
Rate of out-of-school children, pre-primary school age	**100.0%**	**67.4%**	**60.6%**	**60.6%**	**50.1%**
Number of out-of-school children, pre-primary school age	100,201	608,104	579,563	621,623	490,673
Rate of out-of-school children, primary school age	**85.5%**	**46.7%**	**42.6%**	**38.7%**	**36.5%**
Number of out-of-school children, primary school age	469,369	2,133,879	1,993,002	2,032,991	1,965,068
Rate of out-of-school children, secondary 1 school age	**87.9%**	**43.9%**	**50.5%**	**20.0%**	**39.9%**
Number of out-of-school children, secondary 1 school age	134,407	647,366	785,201	333,795	641,587

Annex 4 Nomadic population and percentage distribution, 6- to 11-year-old children, by school attendance, sex, age and state (2008)

Annex 4.1 Nomadic population 6- to 11-year-old children by school attendance, sex, age and state (2008)

	Sex														
	Male					Female					Total				
	School Attendance					School Attendance					School Attendance				
	Currently Attending	Previously Attended	Never Attended	Not Reported	Total	Currently Attending	Previously Attended	Never Attended	Not Reported	Total	Currently Attending	Previously Attended	Never Attended	Not Reported	Total
Age															
6	5,935	767	46,291	7,865	60,859	4,116	515	37,584	6,215	48,431	10,052	1,283	83,876	14,080	109,291
7	7,814	803	35,362	4,274	48,253	5,266	516	29,201	3,614	38,597	13,080	1,318	64,563	7,889	86,850
8	11,852	1,210	46,922	4,827	64,811	7,586	736	36,427	3,925	48,674	19,438	1,946	83,349	8,752	113,484
9	8,087	845	27,197	2,516	38,646	5,165	519	20,905	2,045	28,634	13,252	1,364	48,102	4,561	67,280
10	13,783	1,938	51,170	4,438	71,328	8,009	1,064	38,045	3,556	50,674	21,792	3,002	89,214	7,994	122,002
11	6,581	895	19,950	1,585	29,011	3,980	481	14,906	1,397	20,765	10,560	1,376	34,857	2,982	49,775
Total	**54,052**	**6,458**	**226,892**	**25,505**	**312,907**	**34,121**	**3,830**	**177,069**	**20,753**	**235,774**	**88,173**	**10,288**	**403,961**	**46,258**	**548,681**
State															
Northern	117	9	966	60	1,153	77	4	918	57	1,056	194	13	1,884	118	2,208
Nahr El Nil	283	30	2,348	106	2,767	95	16	2,319	129	2,559	378	47	4,666	235	5,326
Red Sea	3,597	542	23,667	1,423	29,230	2,438	340	15,255	827	18,859	6,035	881	38,922	2,250	48,089
Kassala	1,491	738	17,979	2,304	22,512	748	385	10,890	1,490	13,512	2,239	1,123	28,868	3,794	36,024
Al Gedarif	52	5	1,679	114	1,850	31	11	1,594	109	1,745	83	16	3,273	223	3,595
Khartoum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Al Gezira	19	-	352	14	386	-	-	353	4	357	19	-	705	18	743
White Nile	688	49	2,921	275	3,932	395	37	2,877	267	3,575	1,083	85	5,798	542	7,508
Sinnar	66	2	2,564	127	2,759	28	2	2,094	111	2,236	94	4	4,658	238	4,994
Blue Nile	65	109	2,849	185	3,209	37	107	2,600	184	2,929	102	216	5,450	369	6,137
North Kordofan	7,434	528	28,455	2,353	38,770	4,185	257	26,064	1,734	32,240	11,619	785	54,519	4,087	71,010
South Kordofan	2,910	296	11,753	2,281	17,240	1,619	180	11,666	2,401	15,867	4,529	475	23,419	4,682	33,107
North Darfur	14,244	941	26,056	3,490	44,732	10,149	584	20,607	2,945	34,285	24,393	1,526	46,663	6,435	79,017
West Darfur	2,019	778	18,580	3,346	24,723	1,060	477	18,266	3,108	22,911	3,079	1,255	36,845	6,454	47,634
South Darfur	21,067	2,432	86,723	9,425	119,647	13,259	1,430	61,567	7,387	83,644	34,327	3,861	148,290	16,812	203,290
Total	**54,052**	**6,458**	**226,892**	**25,505**	**312,907**	**34,121**	**3,830**	**177,069**	**20,753**	**235,774**	**88,173**	**10,288**	**403,961**	**46,258**	**548,681**

Annex 4.2 Percentage distribution of nomadic population 6- to 11-year-old children by school attendance, sex, age and state (2008) (Dimension 2)

	Sex														
	Male					Female					Total				
	School Attendance					School Attendance					School Attendance				
	Currently Attending	Out of school	Previously Attended	Never Attended	Not Reported	Currently Attending	Out of school	Previously Attended	Never Attended	Not Reported	Currently Attending	Out of school	Previously Attended	Never Attended	Not Reported
Age															
6	9.8	77.3	1.3	76.1	12.9	8.5	78.7	1.1	77.6	12.8	9.2	77.9	1.2	76.7	12.9
7	16.2	74.9	1.7	73.3	8.9	13.6	77.0	1.3	75.7	9.4	15.1	75.9	1.5	74.3	9.1
8	18.3	74.3	1.9	72.4	7.4	15.6	76.4	1.5	74.8	8.1	17.1	75.2	1.7	73.4	7.7
9	20.9	72.6	2.2	70.4	6.5	18.0	74.8	1.8	73.0	7.1	19.7	73.5	2.0	71.5	6.8
10	19.3	74.5	2.7	71.7	6.2	15.8	77.2	2.1	75.1	7.0	17.9	75.6	2.5	73.1	6.6
11	22.7	71.9	3.1	68.8	5.5	19.2	74.1	2.3	71.8	6.7	21.2	72.8	2.8	70.0	6.0
Total	**17.3**	**74.6**	**2.1**	**72.5**	**8.2**	**14.5**	**76.7**	**1.6**	**75.1**	**8.8**	**16.1**	**75.5**	**1.9**	**73.6**	**8.4**
State															
Northern	10.2	84.6	.8	83.8	5.2	7.3	87.3	.4	86.9	5.4	8.8	85.9	.6	85.3	5.3
Nahr El Nil	10.2	85.9	1.1	84.8	3.8	3.7	91.2	.6	90.6	5.0	7.1	88.5	.9	87.6	4.4
Red Sea	12.3	82.8	1.9	81.0	4.9	12.9	82.7	1.8	80.9	4.4	12.5	82.8	1.8	80.9	4.7
Kassala	6.6	83.1	3.3	79.9	10.2	5.5	83.4	2.8	80.6	11.0	6.2	83.3	3.1	80.1	10.5
Al Gedarif	2.8	91.0	.3	90.7	6.2	1.8	92.0	.6	91.4	6.2	2.3	91.5	.5	91.0	6.2
Khartoum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Al Gezira	5.0	91.3	0.0	91.3	3.8	0.0	98.9	0.0	98.9	1.1	2.6	95.0	0.0	95.0	2.5
White Nile	17.5	75.5	1.2	74.3	7.0	11.0	81.5	1.0	80.5	7.5	14.4	78.4	1.1	77.2	7.2
Sinnar	2.4	93.0	.1	92.9	4.6	1.3	93.8	.1	93.7	5.0	1.9	93.4	.1	93.3	4.8
Blue Nile	2.0	92.2	3.4	88.8	5.8	1.3	92.4	3.7	88.8	6.3	1.7	92.3	3.5	88.8	6.0
North Kordofan	19.2	74.8	1.4	73.4	6.1	13.0	81.6	.8	80.8	5.4	16.4	77.9	1.1	76.8	5.8
South Kordofan	16.9	69.9	1.7	68.2	13.2	10.2	74.7	1.1	73.5	15.1	13.7	72.2	1.4	70.7	14.1
North Darfur	31.8	60.4	2.1	58.3	7.8	29.6	61.8	1.7	60.1	8.6	30.9	61.0	1.9	59.1	8.1
West Darfur	8.2	78.3	3.1	75.2	13.5	4.6	81.8	2.1	79.7	13.6	6.5	80.0	2.6	77.4	13.5
South Darfur	17.6	74.5	2.0	72.5	7.9	15.9	75.3	1.7	73.6	8.8	16.9	74.8	1.9	72.9	8.3
Total	**17.3**	**74.6**	**2.1**	**72.5**	**8.2**	**14.5**	**76.7**	**1.6**	**75.1**	**8.8**	**16.1**	**75.5**	**1.9**	**73.6**	**8.4**

Annex 5 Economically active children, aged 10 to 14 years, by school attendance

	School attendance								
	Per cent	Currently attending	Per cent	Previously attended	Per cent	Never attended	Per cent out of school	Number out of school	Total number (ages 10-14)
Male									
Residence									
Urban	28.4	4,830	51.8	8,798	19.7	3,353	71.6	12,150	16,981
Rural	11.4	20,090	24.9	44,036	63.7	112,648	88.6	156,684	176,774
Age									
10	14.4	5,786	10.9	4,354	74.7	29,990	85.6	34,345	40,130
11	14.7	3,110	12.6	2,682	72.7	15,417	85.3	18,100	21,210
12	15.3	8,366	21.1	11,554	63.6	34,818	84.7	46,371	54,738
13	12.7	3,844	47.8	14,484	39.6	11,997	87.3	26,481	30,324
14	8.1	3,815	41.7	19,759	50.2	23,778	91.9	43,537	47,352
Labour force									
Employed	12.8	18,182	26.5	37,511	60.7	86,023	87.2	123,534	141,716
Worked before and seeking work	19.4	3,490	23.6	4,246	57.1	10,294	80.6	14,540	18,030
First-time job seeker	9.6	3,249	32.6	11,076	57.9	19,683	90.4	30,760	34,009
Total	**12.9**	**24,921**	**27.3**	**52,833**	**59.9**	**116,000**	**87.1**	**168,834**	**193,754**
Female									
Residence									
Urban	42.1	1,618	41.9	1,613	16.0	616	57.9	2,228	3,846
Rural	8.1	9,671	14.9	17,794	76.9	91,559	91.9	109,353	119,024
Age									
10	10.5	2,915	4.2	1,168	85.3	23,674	89.5	24,842	27,757
11	11.0	1,108	11.3	1,146	77.7	7,857	89.0	9,002	10,110
12	6.2	1,677	25.6	6,963	68.2	18,545	93.8	25,508	27,185
13	12.7	3,244	15.6	3,990	71.6	18,277	87.3	22,267	25,511
14	7.3	2,345	19.0	6,140	73.7	23,822	92.7	29,962	32,307
Labour force									
Employed	9.7	8,420	14.1	12,220	76.1	65,840	90.3	78,060	86,480
Worked before and seeking work	5.8	1,217	12.7	2,640	81.5	16,949	94.2	19,589	20,806
First-time job seeker	10.6	1,651	29.2	4,546	60.2	9,386	89.4	13,931	15,583
Total	**9.2**	**11,288**	**15.8**	**19,407**	**75.0**	**92,175**	**90.8**	**111,581**	**122,870**
Total (female and male)									
Residence									
Urban	31.0	6,448	50.0	10,410	19.1	3,968	69.0	14,379	20,826
Rural	10.1	29,761	20.9	61,830	69.0	204,207	89.9	266,036	295,798
Age									
10	12.8	8,701	8.1	5,522	79.0	53,665	87.2	59,187	67,887
11	13.5	4,218	12.2	3,828	74.3	23,274	86.5	27,102	31,320
12	12.3	10,043	22.6	18,517	65.1	53,362	87.7	71,879	81,922
13	12.7	7,088	33.1	18,473	54.2	30,274	87.3	48,747	55,835
14	7.7	6,160	32.5	25,900	59.8	47,600	92.3	73,500	79,660
Labour force									
Employed	11.7	26,602	21.8	49,731	66.5	151,863	88.3	201,594	228,196
Worked before and seeking work	12.1	4,707	17.7	6,886	70.1	27,243	87.9	34,129	38,836
First-time job seeker	9.9	4,900	31.5	15,622	58.6	29,069	90.1	44,691	49,591
Total	**11.4**	**36,209**	**22.8**	**72,240**	**65.7**	**208,175**	**88.6**	**280,415**	**316,624**

Annex 6 Household samples distribution by state and source (Population Census 2008, NBHS 2009 and SHHS 2010)

State	Populations Census 2008				NBHS 2009			SHHS 2010		
	Place of residence			Total	Place of residence		Total	Place of residence		Total
	Urban	Rural	Nomads		Urban	Rural		Urban	Rural	
Northern	2,249	9,929	3,035	15,213	96	432	528	245	739	984
Nahr El Nil	7,331	14,738	6,063	28,132	144	384	528	294	689	983
Red Sea	11,341	6,936	47,507	65,784	384	144	528	516	472	988
Kassala	9,733	15,727	34,763	60,223	156	372	528	290	680	970
Al Gedarif	7,386	19,813	3,825	31,024	144	384	528	265	708	973
Khartoum	78,126	18,167	-	96,293	419	108	527	798	173	971
Al Gezira	12,481	53,689	182	66,352	96	432	528	100	900	1,000
White Nile	9,047	19,461	7,446	35,954	180	348	528	315	661	976
Sinnar	4,901	17,889	5,726	28,516	120	407	527	224	765	989
Blue Nile	3,577	10,178	5,600	19,355	132	396	528	250	748	998
North Kordofan	10,846	40,094	76,531	127,471	107	419	526	250	749	999
South Kordofan	5,411	15,223	31,621	52,255	132	396	528	246	742	988
North Darfur	5,578	10,760	81,773	98,111	109	417	526	199	793	992
West Darfur	1,449	11,299	50,735	63,483	96	429	525	223	764	987
South Darfur	11,742	23,866	183,813	219,421	144	383	527	264	716	980
	181,198	**287,769**	**538,620**	**1,007,587**	**2,459**	**5,451**	**7,910**	**4,479**	**10,299**	**14,778**

Annex 7 Education indicators for school facilities and teachers from Baseline Survey

Indicator	Value (%)
Type of School	
Girls	22.4
Boys	23.3
Co-education	52.1
School management	
Government	95.4
Private	4.6
Mode of schooling	
Religious	1.3
Regular	77.6
Nomadic	5.6
Internally displaced persons	4.0
Collective	0.5
Village	10.8
Special needs	0.1
School social location	
Near market	8.3
Boarding schools	
Residential area	91.0
Near industrial	0.7
School fence	
Complete	28.4
Without fence	56.6
Not complete	15.0
Schools with electricity	33.8
Private generator	11.8
Public network	77.5
Solar	9.5
Schools with telephone	12.7
Schools with a playground	42.3
Schools with computers	6.6
Schools with first aid	19.4
Schools with shaded areas	59.4
Pupil seating	
Seated without desk	11.8
Seated with desk	50.0
Not seated	38.2
Average class size	59
School buildings: Classrooms	
To be repaired	41.9
Good condition	40.0
To be replaced	9.1
Female teachers	67.7

Indicator	Value (%)
Schools' keeping performance record	60.7
Pupils: Teacher ratio	34.1
Teacher Type of Service	
Appointed	90.1
National service	1.8
Volunteer	4.4
Part-time	3.7
Teachers' basic qualification	
Post university	1.8
Secondary	72.8
Intermediate	3.5
University	15.5
Intermediate diploma	4.2
Other	2.2
Teachers' type of service	
Appointed	90.1
Volunteer	4.4
National service	1.8
Part-time	3.7
Teachers' specialization	
English	8.8
Arabic	14.5
Islamic studies	7.7
Mathematics	9.5
Grade teacher	7.23
General	35.2
Computer	0.3
Not stated	9.7
Teachers' last training	
Teacher training Institute	5.5
Education college	20.0
On-service	24.3
Bakht-elrrida Institute	3.7
Female teachers college	4.6
No training	41.8
Schools with feeding programme	23.7
Direct feeding	13.2
School feeding	72.3
Temporary feeding	10.5
Not stated	4.9

Annex 8 Definitions of selected education indicators

The following list provides the definitions of key education indicators for the quantitative analysis. The basic calculation method for most of these indicators can be found in Section 3. For detailed information regarding the calculation methods for these indicators, consult the UIS online education glossary.

Education indicators calculated from administrative or household survey data

Net intake rate. The number of new entrants in Grade 1 of primary education who are of the theoretical primary school entrance age, expressed as a percentage of the population of the same age.

Survival rate, by level. The percentage of a cohort of pupils (or students) enrolled in Grade 1 of a given level or cycle of education in a given school year who are likely to reach a given grade, regardless of repetition. Survival rates are calculated on the basis of the reconstructed cohort method, which uses data on enrolment and repeaters for two consecutive years.

Transition rate from primary to secondary general education. The number of new entrants to Grade 1 of secondary education in a given year, expressed as a percentage of the number of pupils enrolled in the final grade of primary education in the previous year. Percentage of repeaters. The number of pupils or students who are enrolled in the same grade (or level) as the previous year, expressed as a percentage of the total enrolment in the given grade (or level) of education.

Percentage of new entrants to primary education with ECCE experience. The number of new entrants to primary education who have attended some form of organized early childhood care and education (ECCE) programmes, expressed as percentage of total number of new entrants to primary education.

Dropout rate by grade. Proportion of pupils from a cohort enrolled in a given grade in a given school year that are no longer enrolled in the following school year.

Education indicators calculated from administrative data

Primary adjusted net enrolment rate (ANER). Total number of pupils of the official school age group who are enrolled at primary or secondary education levels, expressed as a percentage of the primary population.

Lower secondary adjusted net enrolment rate (ANER). Total number of pupils of the official lower secondary school age group who are enrolled at lower or upper secondary education levels, expressed as a percentage of the lower secondary age population.

Gross enrolment rate (GER), by education level. Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school year.

Gender parity index of ANER or GER, by education level. The ratio of female-to-male values of a given indicator. A GPI between 0.97 and 1.03 indicates gender parity.

Pupil/teacher ratio. The average number of pupils per teacher at the level of education specified in a given school year, based on headcounts for both pupils and teachers.
OOSC CMF March 201176

Percentage of trained teachers. The number of teachers who have received the minimum organized teacher-training (pre-service or in service) required for teaching at the relevant level of education in the given country, expressed as a percentage of the total number of teachers at the given level of education.

Percentage of private enrolment. The number of pupils at a given level of education enrolled in institutions that are not operated by a public authority but controlled and managed, whether for profit or not, by a private body such as a non-governmental organization, religious body, special interest group, foundation or business enterprise, expressed as a percentage of the total number of pupils or students enrolled at the given level of education.

Education indicators calculated from household survey data

Adjusted primary net attendance rate (ANAR). The percentage of the official primary school age population that attends either primary or secondary school. Adjusted lower secondary net attendance rate (ANAR). The percentage of the official lower secondary age population that attends lower or upper secondary school.

Primary gross attendance rate (GAR). The total number of students attending primary school, regardless of age, expressed as a percentage of the official school level population.

Gender parity index for primary and secondary NAR and ANAR. The ratio of female-to-male values of a given indicator. A GPI between 0.97 and 1.03 indicates gender parity.

Education indicators calculated from education finance data

Educational expenditure by nature of spending as a percentage of total educational expenditure on public institutions, by level. Spending by nature (salaries, other current, total current or capital) expressed as a percentage of the expenditure for public educational institutions of the specified level. Salaries and other current add up to the total current expenditure. Public subsidies to the private sector and administrative costs should be excluded.

Public expenditure per student, by level, as a percentage of GDP per capita. Total public expenditure per student in the specified level expressed as a percentage of GDP per capita.

Total public expenditure per student, by level (PPP US$). Total public expenditure per pupil or student in the specified level expressed in US$ and adjusted in terms of purchasing power parity.

Total public expenditure on education as a percentage of GDP. Current and capital expenditures on education by local, regional and national governments, including municipalities (household contributions are excluded), expressed as a percentage of GDP.

Public expenditure on a specific ISCED level as a percentage of total public expenditure on education. Public expenditure for a given education level (primary, lower secondary) expressed as a percentage of total public expenditure on education.

Total public expenditure on education as a percentage of total government expenditure. Current and capital expenditures on education by local, regional and national governments, including municipalities (household contributions are excluded), expressed as percentage of total government expenditure on all sectors (health, education, and social services).

Annex 9 Study team and resource persons

OOSC Study Core Team		
1	Dr. Ibtisam Mohamed Alhassan	Director General – Educational Planning Directorate – MoE
2	Mohamed Ahmed Abdalla	Basic Education Department – MoE
3	Dr. Omkalthoum Mohamed Khair	Girls Education Department – MoE
4	Hamad Saeed Osman	National Council for Literacy and Adult Education
5	Musa Hussien Abdalla	Education Statistic Department – MoE
6	Dr. Omsalma Al Amin Ali	Education Statistic Department – MoE
7	Salah Abdel Rahman	Central Bureau of Statistics – Sudan
8	Dr. Daniel Baheta	UNICEF – Education Section
9	Dr. Abdel Rahman E. El Dood	UNICEF – Education Section
10	Abdel-Bari Hassan Nasir	National Consultant
11	Siddiq Mohamed Osman	National Consultant
Resource Persons		
1	Dr. Abdel Rahman El Shareif,	Director – Preschool Department – MoE
2	Dr. Ibrahim El Dasis	Education expert
3	Ustaz. Musa Omer	Education expert
4	Dr. Mubark Yahya Abbas	Education expert – Sudanese Network for Education For All
5	Dr. Mubark El Magrabi	Education expert – Education Forum
6	Dr. Hassan Ali Mohamed	Chief of Education Section – UNICEF
7	Ustaz. El Gali El Zain Hamdoun	Nomadic Education Department
OOSC study National Team (Formed by the State Minister – MOE issue # 28/2013 dated 6th June 2013		
1	State Minister – Ministry of Education	Chairperson
2	Ministry of Agriculture	Member
3	Ministry of Human Resources & Labour	Member
4	National Services	Member
5	National Council for strategic Planning	Member
6	Central Bureau of Statistics	Member
7	UNICEF – Sudan Country Office	Member
8	UNESCO – Sudan Country Office	Member
9	World Bank	Member
10	International Labour Organization	Member
11	Sudanese Education Network	Member
12	Save the Children – Sweden	Member
13	El Massar Organization for Nomads	Member
14	Plan International – Sudan	Member
15	Afad University for Women	Member
16	Dr. Omsalma Al Amin Ali	Secretary

For more information visit our Website:
www.oosci-mena.org

UNICEF Sudan Country Office
Gerief West (Manshiya), First District H
Plots # 6/3, PO Box 1358
Khartoum, Sudan
Tel: +249 156 553 670
Website: www.unicef.org/sudan/