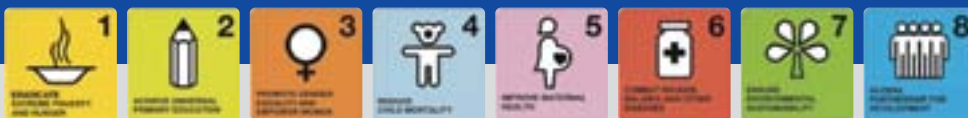




Towards Sustainable Social and Economic Growth

# Millennium Development Goals Progress Report Rwanda Country Report 2010



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Roger Mugisha of the National Institute of Statistics of Rwanda (NISR) acted as the focal point at NISR, facilitated our access to reports and data and commented extensively on earlier drafts of this report

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Economic growth alone, is not sufficient to bring about the necessary rise in the standard of living of the population. To vanquish hunger and poverty growth must be Pro-Poor, giving all Rwandans the chance to gain from the new economic opportunities.

(H.E. Paul Kagame, President of the Republic of Rwanda, Vision 2020, 2000).



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# Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
CFCs	Consumption of Ozone-Friendly Depleting Carbons
ART	Antiretroviral Treatment
BNR	National Bank of Rwanda
CEPGL	Economic Community of the Great Lakes Countries
CIP	Crop Intensification Programme
DOTS	Directly Observed Treatment Short Course
EAC	East African Community
EDPRS	Economic Development and Poverty Reduction Strategy
EICV	Integrated Household Survey
EPI	Environmental Performance Index
GDP	Gross Domestic Product
HEs	Household Enterprises
HEIs	Higher Education Institutions
HIDA	Human and Institutional Development Agency
HIPC	Heavily Indebted Poor Countries
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
ICT	Information and Communication Technology
IDHS	Interim Demographic and Health Survey
IMR	Infant Mortality Rate
IPAR-Rwanda	Institute of Policy Analysis and Research-Rwanda
KIST	Kigali Institute of Science and Technology
LLIN	Long-Lasting Insecticide Net
LM-MD	World Bank Labour Market Micro-Level Database
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MDRI	Multilateral Debt Relief Initiative
MIS	Management Information System
MMR	Maternal Mortality Ratio
MSMEs	Micro, Small and Medium Enterprises
NGOs	Non-Government Organisations
NISR	National Institute of Statistics of Rwanda
ODA	Official Development Assistance
ODPs	Official Development Partners
REMA	Rwanda Environmental Management Agency
RWF	Rwandan Franc
PRSP	Poverty Reduction Strategic Paper
SWAp	Sector-Wide Approach
TB	Tuberculosis
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Organisation Fund
VCT	Voluntary Counselling and Testing
VUP	Vision 2020 Umurenge Programme
WHO	World Health Organization

## Foreword

I am delighted to introduce the Millennium Development Goals Progress Report: Rwanda Country Report 2010. This report shows the good progress that Rwanda is making towards the achievement of the MDGs. The excellent progress made has been recognised internationally by the appointment of our President, His Excellency Paul Kagame, as Co-Chair the MDG Advocacy Group.

Rwanda's commitment to achieving the MDGs is demonstrated by our Economic and Poverty Reduction Strategy (EDPRS). Our monitoring and evaluation framework for the EDPRS incorporates the key MDG Targets. We recognize that the MDGs represent a set of Goals that will improve the lives of all Rwandans by ensuring that they have the capability to make choices and to lead a decent life. MDGs are about human development as well as poverty reduction. Achieving the MDGs will enable all Rwandans to have a full and productive life and support the social and economic development of our country.

While we are making progress in achieving all the Goals, we are making better progress in achieving some than others. We are especially pleased to note that we have already achieved the Target for the number of women in the parliament. We are also doing especially well in the eradication of hunger, in the education Targets and in the Target for immunization against measles. With renewed effort and support, we can also achieve a number of health and environmental targets.

However, as the report shows, we also face challenges in a number of areas. Reducing poverty, providing decent jobs for all and providing equal opportunities for women in employment are proving especially difficult to progress. Maternal mortality remains high despite a dramatic decline in its rate in recent years. Also, as this report makes clear, the better off are benefiting in a disproportional way from the high economic growth we have experienced in recent years. We need to make a renewed effort to ensure our policies are pro-poor, a clear objective of our Vision 2020.

I call on all Rwandans and our partners to continue to work together to make our Vision 2020 a reality. We need to ensure that all Rwandans benefit from the strong economic growth we are achieving, the poor as well as the better off and women and children as well as men.

John Rwangombwa  
Minister of Finance and Economic Planning



## Preface

This is the third progress report on the Millennium Development Goals for Rwanda. The report demonstrates the strong commitment of the country to human development and poverty reduction and shows the progress that Rwanda is making towards achieving the Goals. It shows that while there has been good progress made, significant challenges remain.

The report considers what policies and programmes have supported progress towards achieving the Goals and highlights examples of successful projects and programmes. It also points out where interventions to support accelerated progress could enable the achievement of specific Targets by 2015.

The findings of the report give grounds for considerable optimism. Rwanda has made sustainable progress in a number of areas, especially in promoting gender equality, in education and health.

However, the report also shows that slow progress is being made in turning the tide against poverty and that only a small minority of Rwanda's have decent employment. Too few Rwandans are benefitting from the strong economic growth that has been experienced in recent years and inequalities are growing. Rwanda needs the support of its Development Partners to enable it to realize its ambition of building a strong and prosperous future for all Rwandans.

Finally, I would like to acknowledge the support that has been received from central and local government, Development Partners and Civil Society Organisations, and the National Institute of Statistics of Rwanda throughout the preparation of this report. I would especially like to thank the participants in the deliberative forum that advised on the bottlenecks and challenges that are being faced in implementing the Goals and suggested what support might enable them to be overcome.

Aurélien Agbénonci  
UN Resident Coordinator/ UNDP Resident Representative



## Status at a Glance

Goal 1: Eradicate Extreme Poverty and Hunger	1990	2008	2015 Target	Status
Target 1.A: Halve between 1990 and 2015, the proportion of people in poverty	47.5	56.9	23.8	
Target 1.B: Achieve full and productive employment % employees earning a poverty wage % employees own account or family worker		54.9 80.0		
Target 1.C: Halve between 1990 and 2015 the proportion of people who suffer from hunger Proportion of population below minimum level of dietary intake	34	37	17	
Prevalence of underweight children under five year	29.0	15.8	14.5	

Goal 2: Achieve universal primary education	1990	2008	2015 Target	Status
Target 2 Ensure that by 2015 children everywhere, boys and girls alike will be able to complete a full course of primary schooling. Net enrolment ratio in primary school Proportion of pupils starting grade one who reach last grade of primary school Literacy rates of women and men aged 15 -24 years.	62.5	94.2 74.5	100 100	
	72.7	76.8	100	

Goal 3: Promote gender equality and empower women	1990	2008	2015 Target	Status
Target 3 : Ensure that gender disparity in primary and secondary is eliminated, preferably by 2005 and in all levels for education no later than 2015 Ratio of boys to girls in primary school Ratio of boys to girls in secondary school Proportion of seats held by women in national parliament	0.90 0.96 17			
		103 0.9 52	50	
Share of women in waged employment in the non-agricultural sector		28.4	50	

Goal 4: Reduce child mortality	1990	2008	2015 Target	Status
Target 4: Reduce by two-thirds between 1990 and 2015 the under- five mortality rate. Under-five mortality rate Infant mortality rate	141 85	103 62	47 28	
Proportion of one-year-old children immunised against measles	91	90.4	100	



Goal 5: Improve maternal health	1990	2008	2015 Target	Status
Target 5A : Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio Maternal mortality ratio Proportion of births attended by skilled health professionals	1300 26	750 52	325	
Target 5B: Achieve by 2015 universal access to reproductive health Contraception prevalence rate (condom utilisation 15 – 24 years)				
		39.5		
Male		26.4		
Female		27		
Women 15–49 years using modern contraceptives				
Adolescent birth rate (% total live births)		3.6		
Antenatal care coverage		96	100	

Goal 6: Combat HIV/AIDS, malaria and other diseases	1990	2008	2015 Target	Status
Target 6A. Have halved by 2015 and began to reverse the spread of HIV/AIDS HIV prevalence rate amongst population aged 15 –24 Condom use at last high-risk sex Proportion of population aged 15-24 years with comprehensive correct knowledge		2.1 39.0		
male		53.6		
female		50.9		
Ratio of school attendance of orphans to non-orphans aged 10–14 years		0.92		
Target 6B: Achieved by 2015 universal access to treatment for HIV/AIDS for all those who need it. Proportion of population with advanced HIV infection using antiretroviral drugs				
Adults		77.0	100	
Children		49.0	100	
Target 6C: By 2015 have halted and began to reverse the incidence of malaria and other major diseases. Incidence and death rates associated with malaria Mortality rate adults and children over 5 years (per 100,00 population) Mortality rate children 0 –5 years (per 100,000 population) Proportion of children under five sleeping under an insecticide-treated bed nets			100	
		15.9		
		17.3		
		55.7		
Mortality rate per 1000, 000 population from TB		5.0		

Goal 7: Ensure environmental sustainability	1990	2008	2015 Target	Status
Target 7A: Integrate the principals of sustainable development into the country's policies and programmes and reverse the loss of environmental resources				
Target 7B: Reduce biodiversity loss Proportion of land covered by forest CO2 emissions total per capita Consumption of ozone-depleting substances Proportion of total water resources used Proportion of terrestrial areas protected	18.5	10.0	25.0	
Proportion of species threatened with extinction		12	10	
Target 7C: Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation Proportion of population using an improved drinking water source Proportion of population using an improved sanitation facility				
		59.9	82.0	
		56.3		

Goal 8: Develop a global partnership for development	1990	2008	2015 Target	Status
Proportion of ODA to basic social services (education, primary health care, nutrition, safe water and sanitation)		44.3		
Access to essential drugs		89.0		
Telephones per 100 population (mobile phone)		13.1		
Personal computers per 100 population		0.6		

	On track
	Strong to moderate potential to achieve with support to accelerate progress
	Off track



# Constraints at a Glance

This Table summarises the main factors that are constraining Rwanda in making progress towards achieving the MDGs it sets out the policy framework for each Goal, the budget source for implementation and the constraints/dependencies. We first consider cross-cutting constraints and then consider ones specific to each Goal.

## A: Cross-cutting Constraints (CCC)

	Policy Framework	Budget	Constraints/Dependencies
CCC	EDPRS  This Strategy incorporates the MDGs and is widely recognized as a well designed pro-poor economic development strategy that will enable progress to be made to achieving the MDGs. The main question is if they will all be achieved by 2015. The three that are proving most challenging and Rwanda is are off course for achieving the 2015 Targets and Indicators and are MDG 1, reducing poverty rates by half, MDG 4 reducing the MMR by two-thirds and MDG 7A and 7B, environmental sustainability.	Budgeted for in EDPRS Total projected over 5 years 5,151 billion RWF (Ministry of Finance and Economic Planning, 2007, P120) (US\$ per capita 949) ,	<ul style="list-style-type: none"> <li>• Global economic downturn – the Government forecasts a reduction in funding for investment in the EDPRS by 2012.</li> <li>• Population pressure having a negative impact on agricultural policies and service delivery and the high birth rate which is driving population growth and putting pressure on all resources.</li> <li>• Poor health having a negative impact on the productivity of workers.</li> <li>• Skills shortages at all levels from qualified technical and vocational workers to PhD holders.</li> <li>• A lack of capacity in central and local government due to a shortage of qualified technical and professional workers, lack of experienced workers to mentor and support more recently qualified employees and difficulty in retaining employees in the public sector due to uncompetitive salaries.</li> <li>• A poor physical infrastructure (roads, energy management, water) and the high cost of utilities. Obsolete and poorly maintained equipment in essential services.</li> <li>• A geographical location that makes the cost of imports high and exports uncompetitive.</li> <li>• A lack of mineral and other natural resources to fund development, and a narrow tax base.</li> <li>• An under-developed private sector.</li> <li>• A significant number of environmental challenges including soil erosion and exhaustion, and climate change making weather patterns less predictable.</li> <li>• A reluctance of donors to switch from project support to a sector wide approach thus enabling donors and the Government to work closely together to implement the Government's priorities.</li> <li>• Low levels of literacy, especially in rural areas.</li> <li>• Inadequate development of science, technology and ICT and slow progress in the implementation of E-Government.</li> <li>• A significant proportion of women have yet to benefit from the Government's strong commitment to promote gender equality and empowering women.</li> <li>• Some services are not responsive to the needs of beneficiaries and consumers and there is poor service delivery in the public and private sectors.</li> <li>• Slow implementation of ICT Policy and the high cost of services.</li> <li>• A need for more surveys and for capacity building in data collection and analysis at local and central government levels.</li> </ul>

## B: Specific Constraints

MDG	Key Elements of the Policy Framework	Financing	Problems of Delivery to the Public
1A	EDPRS Agricultural and Food Security Policy Land rights and settlement policies	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>• High population growth driven by high birth rate.</li> <li>• Improved farming – access to credit for farmers, awareness raising, provision of support, access to markets.</li> <li>• High cost of inputs and improved seeds.</li> <li>• Shortage of agricultural extension workers.</li> <li>• Lack of legal title to land.</li> <li>• Slow progress of rural-group settlements.</li> <li>• Building confidence and trust.</li> </ul>
1B	EDPRS Financial reforms Doing Business MSMEs – Business Development Centres	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>• Slow growth in private sector, inward investment and MSMEs.</li> <li>• Difficulty in access to credit especially in rural areas.</li> <li>• Lack of capacity for engaging in non-farm work.</li> <li>• Poor infrastructure and high cost of utilities.</li> <li>• Slow growth in ICT.</li> <li>• Burden of domestic work on women and cultural attitudes to women.</li> </ul>
1C	EDPRS Social Protection Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>• Speed of introducing and evaluating pilots for social protection programmes targeted at lifting the extremely poor out of poverty.</li> <li>• Lack of capacity in local government to implement M &amp; E.</li> </ul>
2	EDPRS Education Policy Girl's Education Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>• Poor quality of schools – infrastructure, learning resources and pedagogy.</li> <li>• Training teachers to teach in English.</li> <li>• Opportunity costs for parents of sending children to school.</li> <li>• Low remuneration of teachers, shortage of qualified teachers.</li> </ul>
3	EDPRS Gender Policy Gender Monitoring Gender based budgeting	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>• Cultural attitudes to women and gender-based violence.</li> <li>• Slow progress in enabling women to move into non-farm employment.</li> <li>• Lack of gender-disaggregated data, lack of gender impact analysis of policies, practices and procedures, and of gender-based budgeting in some sectors.</li> </ul>
4	EDPRS Health Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>• Lack of a specific budget for child health.</li> <li>• High birth rate and lack of spacing between births.</li> <li>• Inadequate provision of neonatal care.</li> <li>• Shortage of healthcare professionals.</li> <li>• Poorly maintained equipment due to a shortage of qualified technicians.</li> </ul>
5A	EDPRS Health Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>• Poor nutritional state and general health of mothers and nearly half of births not attended by health care professional.</li> <li>• Insanitary conditions and lack of potable water especially in rural areas.</li> <li>• Distance to health centres in rural areas.</li> <li>• Late and only partial engagement with antenatal care mainly due to limited understanding of need for medical care.</li> <li>• Shortage of health care professionals especially midwives.</li> <li>• Low provision of post-delivery care.</li> </ul>





6A	EDPRS Health Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>Limited take-up, by those eligible, of antiretroviral treatment. Children in particular have a low take-up.</li> </ul>
6B	EDPRS Health Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>Low use of condoms, including when engaging in high-risk sex.</li> <li>Lack of knowledge of safe sex, especially amongst the most at-risk groups.</li> <li>Inadequate provision of a youth-friendly service.</li> </ul>
6C	EDPRS Health Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>Low use of mosquito nets, including by children under five years and expectant mothers.</li> <li>Lack of laboratory facilities for testing for TB.</li> <li>Some of the most deprived and vulnerable households not covered by health insurance.</li> </ul>
7A +B	EDPRS Rwanda Environmental Management Authority Environment Law Cities master plan and imiduguda Forestry management Policy on Urbanization	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>Lack of environmental impact analysis of all programmes, policies and procedures given the strong poverty-degradation spiral.</li> <li>The slow speed of reforestation and afforestation programmes.</li> <li>A lack of adequate planning of human settlements especially in urban areas.</li> <li>The use of marginal land for farming and encroachment into protected areas for settlement due to population pressure.</li> <li>High rural-urban migration.</li> </ul>
7C	EDPRS Water Use Policy Energy Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>Insufficient access to improved water and sanitation facilities especially in rural areas.</li> <li>The high cost of potable water.</li> <li>Insufficient control over wet and dry sewage, most notably in Kigali.</li> <li>High levels of pollution of water.</li> <li>The high cost of power and slow progress in implementing energy policies.</li> </ul>
8A	EDPRS	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>Too much ODA for projects rather than sector support.</li> <li>Lack of full integration into the EAC.</li> </ul>
8B	EDPRS ICT Policy	Budgeted for through EDPRS	<ul style="list-style-type: none"> <li>Inadequate progress in implementing ICT policy.</li> </ul>

## Introduction

### Purpose of the Report

This report provides an update on Rwanda's progress towards achieving the MDGs by:

1. providing an understanding of why Rwanda is on track for achieving some Goals while lagging behind on others, identifying bottlenecks delaying the achievement of some Goals and examples of good practice that have accelerated progress to achieving the MDGs;
2. carrying out an inequalities analysis to provide more insight into which groups in the population are benefitting, and which are not, from Government policies and programmes targeted at achieving the MDGs;
3. producing a report summarising the findings to support the Government of Rwanda, together with development partners, as they put in place practical plans that target and address key constraints, while scaling up success, to enable accelerated progress to achieving the MDGs.

The MDGs provide a vision for human development. Using a baseline of 1990 Indicators and Targets have been set to measure progress to 2015. The Goals enshrine the world's shared commitment, through a North-South partnership, to free women, children and men from the abject and dehumanising conditions of extreme poverty. The Indicators for each Target provide a way of measuring progress, but we need to ensure we remain focused on the overall Goals and the extent to which they are being achieved. The Goals are all interrelated; for example, being educated enables people to get better jobs which in turn mean they are less likely to live in poverty. Educated women are more likely to restrict the size of their family, have healthy children and send their children to school. Well nourished women are less likely to have complications of pregnancy and die in childbirth. Mobile 'phones enable people in rural areas to run their farms and household and micro enterprises more profitably, enabling them to communicate more easily and use services such as mobile money. Furthermore, the Goals are not just about providing opportunity, but about enabling people to take advantage of the opportunities available to them:

*Real opportunity is about having real choices – the choices that come with a sufficient income, and education, good health and living in a country that is not governed by tyranny (UNDP 2006).*

However, this vision is unlikely to be met in the near future without interventions to accelerate progress in many countries in the South, including Rwanda. It can be achieved, but do so requires a new pact amongst all stakeholders. It also requires a deeper understanding of the constraints on achieving the Goals and the facilitators of success. Such an analysis will permit a better understanding of why good progress has been made in achieving some Goals and not others, both within and between countries. This understanding will support the development of strategies to accelerate progress to achieving the Goals (Ban Ki Moon 2010).

### Methodology

The work undertaken for this report included desk research, qualitative field work and consultation with stakeholders.

### Desk Research

The desk research involved:

- the identification of data to enable progress to be tracked from 1990;
- the identification of data to update the 2007 report;
- the identification of reports and other sources of data that could be used to provide a more detailed analysis by gender, education, economic group and geographical location of progress towards achieving the MDGs;
- a search for literature analysing Rwanda's progress towards achieving the MDGs including the impact of





- climate change and the economic crisis;
- the scrutiny of the Economic Development and Poverty Reduction Strategy (Ministry of Finance and Economic Planning 2007), for the ways in which the MDGs were incorporated;
- an examination of the 2008 EDPRS Monitoring and Evaluation Matrix and the 2009 Mini Budget Report, for reported progress in implementing policies and/or programmes relevant to achieving the MDGs.

#### Field work

The fieldwork was undertaken to get information on what the main constraints and bottlenecks to achieving the MDGs are from the perspective of the Government of Rwanda. Respondents were also asked what would enable the bottlenecks and constraints to be overcome. Information was also collected on policies, programmes and projects that have made accelerated progress towards achieving the Goals possible. The fieldwork involved qualitative (agenda) interviews with:

- the directors of planning in the ministries with lead responsibility for each MDG;
- other relevant Government officials;
- a sample of directors of planning at provincial and district levels;
- other key stakeholders.

Face-to-face interviews were conducted at informants' normal place of work except for provincial and district planning officers who were interviewed by telephone. Responses were recorded in writing during the interview and subsequently word-processed in preparation for analysis. Thematic analysis of the transcripts of the interviews was then carried out.

#### Brainstorming Workshop

A brainstorming workshop was held involving IPAR research staff, UNDP and NISR representatives and other invited experts to provide feedback on a preliminary draft of the report and to identify gaps in it.

#### Deliberative Forum

The deliberative forum was organised in collaboration with NISR and UNDP and attended by representatives of ministries with lead responsibility for the MDGs, representatives of development partners, NGOs and other invited experts. At the Forum the attendees were divided into expert groups, one for each Goal. They were asked to:

1. discuss what the key bottlenecks were delaying progress towards achieving the Goal they were considering;
2. consider what interventions would enable accelerated progress to be made towards achieving the Goal;
3. agree examples of good practice that had supported accelerated progress towards achieving the Goal;
4. report back at a plenary session their three priorities for interventions to accelerate progress and explain why they had agreed on these.

The ideas, suggestions and comments made at the forum as well as the feedback from the brainstorming workshop were incorporated into the final report.

#### Data Availability, Quality and Challenges

In order for the Government and other stakeholders to be aware of progress being made towards achieving the MDGs, regular monitoring and evaluation is necessary. Regular monitoring and evaluation provides information on the progress being made and enables remedial action to be taken as necessary. This requires accurate, reliable and timely data. In Rwanda the National Institute of Statistics of Rwanda (NISR) has overall responsibility for publishing official statistical data and for oversight of the carrying out of a number of periodic surveys that enable the monitoring of progress in achieving targets for poverty reduction, food security and health.

The data used in this report are of two types: routine administrative data collected and reported by government on a periodic basis (usually annual), and survey data. This inevitably means that not all data are up to date. In the case of Government statistical data most were available for 2008, but the most recent survey of poverty and the

labour market was carried out in 2005-6. However, *the 2007-8 Interim Demographic and Health Survey and the 2009 Comprehensive Food Security and Vulnerability Analysis and Nutrition Survey provided more recent sources of data for some Indicators.*

#### A number of generic challenges were identified:

- the lack of recent data to measure progress towards achieving the Targets and Indicators for most MDGs;
- the lack of capacity in ministries and districts to collect and analyse data, meaning that survey data were often not fully exploited by ministries and the potential for findings to influence policy was lost;
- a concern that NISR was under-resourced and relied too heavily on foreign consultants to undertake and analyse surveys;
- a concern that data were not explicitly collected and analysed to enable the monitoring of progress towards achieving the MDGs.

#### Key recommendations are that:

- a household survey (covering data required for monitoring progress towards MDGs and other key indicators) should be carried out annually ;
- capacity to collect and analyse data should be increased at all levels (districts, provinces and ministries) and at NISR;
- there should be a coordinated central system to ensure that valid and reliable information is collected and collated;
- management information systems should become operational as rapidly as possible for collecting routine administrative data;
- data should be collected and analysed specifically to monitor progress towards achieving the MDGs;
- an annual updated summary of progress towards achieving the MDGs should be produced and discussed as part of the annual monitoring and evaluation of the EDPRS.

**Raising Local Awareness of the MDGs and Collecting Information to Evaluate Progress at the Community Level**  
The recently introduced procedures for evaluation of progress towards achieving the MDGs by communities themselves will provide useful information for monitoring and evaluation. Once a month after community work (Umuganda ) information for indicative monitoring of progress towards achieving the MDGs will be collected, including: under-five mortality; maternal mortality; antenatal visits; children attending school; nutritional status of children; take-up of family planning; area of cultivated land and livestock holdings; and membership of enterprise cooperatives. This will enable communities themselves to evaluate progress towards achieving MDGs and EDPRS targets in their community. It will also raise awareness of the MDGs and, even more importantly, of these key issues, and it will build understanding of and capacity for using services and adopting a healthy lifestyle. It will build collective ownership for improving the health and well-being of all members of the community and enable communities to put forward proposals proactively for the more user-friendly delivery of services as well as the development of self-help strategies.

# Background

## Country Context

Rwanda has made clear her strong commitment to achieving the MDGs. The MDG Targets and Indicators are incorporated in the country's Economic Development and Poverty Reduction Strategy and President Paul Kagame has emphasised that meeting the MDGs must remain a priority. The developing world, he has argued, must do more to drive the agenda. Progress towards achieving the MDGs was set back by the devastating impact of the Genocide against the Tutsi in 1994, but in recent years remarkable progress has been made. However, even with strong political commitment not all the Targets will be achieved by 2015, as the Status at a Glance Table shows.

Rwanda is one of the best performing countries in Africa and an example of success in post-conflict reconstruction (Bigsten et al 2008). It has been widely acknowledged for the progress it has made in fighting corruption and promoting gender equality. It remains one of only two countries in the world to have women as more than 50 per cent of its members of parliament. It has achieved political stability, with a new constitution being approved in 2003 and two rounds of parliamentary and presidential elections held without serious incident. The challenge now is for Rwanda to operate a successful transition from recovery and reconstruction-based growth to a broadly based and sustainable growth that will benefit all the population.

Rwanda remains, however, one of the poorest and most aid-dependent countries in the world and faces enormous development challenges. With a population of just under 10 million, it is the most densely populated country in Africa and one of the most densely populated countries in the world. It has high rates of poverty, high infant and under-five mortality rates and low life expectancy at birth (NISR 2009). Rwanda's economy is mainly dependent on rain-fed agricultural production based on small, semi-subsistence and fragmented farms. Around 80 per cent of the working population are dependent on agriculture for their livelihood (NISR 2007a, P8). High fertility rates are driving population growth, which is running at nearly three per cent a year (NISR 2009, P2). This population growth is exerting pressure on land, as over 70 per cent of the land surface is exploited for agriculture (Ministry of Agriculture and Animal Resources 2009b, P9). There is an urgent need to diversify the labour market and grow non-farm employment opportunities including supporting the development and reducing the risks of household and micro enterprises.

Lacking physical resources and given its challenging geographical position, Rwanda has recognised that it must develop a good 'soft' environment for business. It has an open trade policy and a favourable investment climate, cheap and abundant labour, tax incentives to businesses, stable internal security, and crime rates that are comparatively low. In terms of economic freedom Rwanda is ranked 10th out of 46 economies in the sub-Saharan region by the Heritage Foundation (2010) and was fourth most improved economy on the 2010 index. In terms of ease of doing business, Rwanda moved from 143rd to 67th in 2009 (The International Bank for Reconstruction and Development/the World Bank 2009).



However, to move onto a path of sustainable development Rwanda needs support to replace a 'vicious cycle' of poverty, hunger, high population growth, conflict and lack of trust with a 'virtuous cycle' in which the building of human capital fuels equitable economic growth and builds political stability and trust. The country remains dependent on significant levels of foreign aid (ODA). The weaknesses of exports and the low domestic savings rate are potential threats to future economic growth. Exports continue to lag far behind imports, and inflation may become a problem due to the influx of donor funds. Rwanda is potentially vulnerable to the global economic crisis and the food crisis, and the heavy dependence on agriculture leaves it vulnerable to climate change, the impact of which is beginning to become evident (REMA 2009a; Stockholm Environmental Agency 2009).

## Vision 2020 and the Economic Development and Poverty Reduction Strategy

Rwanda's vision is to build a knowledge-based economy and to become a private sector led middle income country by 2020. Rwanda's ambitious programme for development is encapsulated in Vision 2020. The Economic Development and Poverty Reduction Strategy (EDPRS) is the mid-term framework to implement the Government's long-term development agenda, Vision 2020 and the Millennium Development Goals (MDGs). It is specifically to guide development between 2008 and 2012 (Ministry of Finance and Economic Planning 2007). It is grounded in a human development approach and incorporates a commitment to promoting gender equality. It explicitly recognises that economic growth alone will not reduce poverty and improve the lives of the poor and incorporates programmes to empower the poorest and support them in exiting poverty.

There are a set of agreed constraints on economic development in Rwanda and a recognition that economic growth will not in itself result in poverty reduction. Indeed, economic growth may increase inequalities without reducing poverty. The EDPRS is explicitly designed to address both economic growth and poverty reduction. It was informed by an analysis of what policies and interventions would enable the country to move on to a path of sustainable development – to grow the economy whilst reducing the proportion of the population living in poverty. While it is too early to tell if the policies and programmes are working, analysis by a number of experts suggests that it has the potential to achieve the specified outcomes (Leander 2007; Lofgren et al 2009).

The EDPRS is based on three pillars designed to accelerate economic growth and promote human development:

1. Sustainable growth for jobs and exports – investing in improving the climate for business investment, thereby achieving private-sector growth. In the shorter term the priority is reinforcing the productive and export potential of the agricultural sector, but in the longer term the goal is to diversify the economy by promoting the non-farm sector.
2. Vision 2020 Umurenge is a pro-poor rural development and social protection programme. It aims to eliminate extreme poverty by 2020 through releasing the productive capacity of the very poor. It includes public works, credit packages and direct support and is implemented at village level using participatory methods;
3. Good economic governance is seen as a precondition for poverty reduction and development by creating a comparative advantage in 'soft infrastructure' (good governance and institutional arrangements important for private investors) thus compensating for Rwanda's relatively poorly developed hard infrastructure and disadvantaged geographical location (Ministry of Finance and Economic Planning 2007).

Gender, HIV/AIDS, environment, youth and social inclusion are cross-cutting issues.

There is a single EDPRS Common Performance Assessment Framework at national level which stresses both domestic accountability and accountability to development partners. An Annual Progress Report is published in April of each year reviewing progress over the previous 12 months. However, the Government have identified a number of key challenges in carrying out monitoring and evaluation (Sebagabo 2009). These include:

- building and harmonizing MISs to support the monitoring framework;
- building capacity in M & E;
- strengthening the links between national and decentralised M & E systems;
- establishing baseline data for all sectors



Local authorities are also accountable to Government for reaching agreed EDPRS performance targets. Citizen empowerment is also a central element in the implementation of the Strategy. Ubudehe seeks to promote self government and greater citizen engagement in matters of governance as well as building social capital and encouraging entrepreneurship. Citizens actively participate in defining their preferences and priorities and are empowered to hold national government and the ministries accountable against commitments made. Local communities are also encouraged to come up with their own solutions to problems.

The EDPRS incorporates a commitment to achieving the MDGs, but to achieve them would require an average annual public investment over the period 2008–2012 of US\$140 per capita, of which US\$72 per capita is required to progress the MDGs alone (Leander 2007). The funding forecast, however, is for average per capita public expenditure over the period to be US\$114 (Ministry of Finance and Economic Planning 2007, P 120) . The conclusion is that:

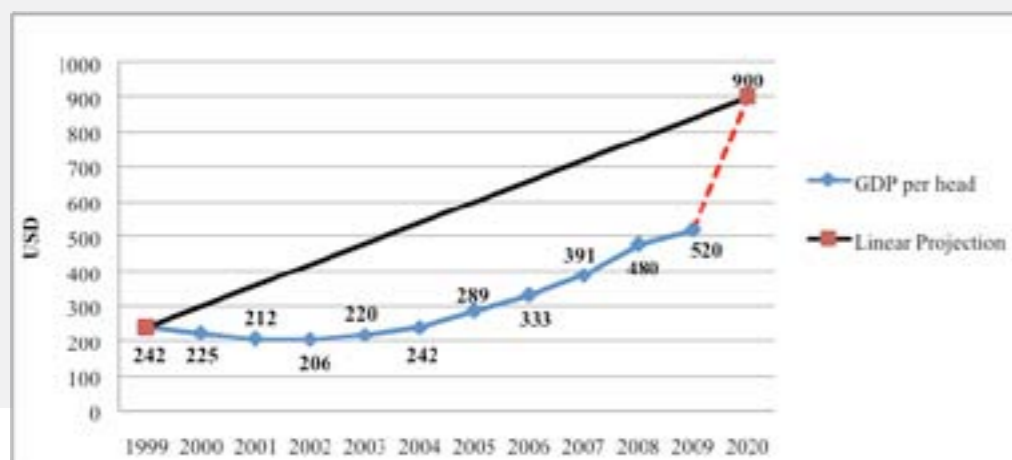
*Although the EDPRS sets ambitious policies and programmes, the overall cost remains well below these assessments [for achieving the MDGs], and, as a result, some of the MDGs will not be met (ibid P120).*

Successful implementation of the EDPRS requires long-term predictable financing necessitating a strong partnership between the Government and the development partners. Development partners need to deliver on their promises and the Government to be accountable to them for the effective design and delivery of policies and programmes they support. We discuss this further under MDG 8 below.

A prerequisite for poverty reduction and achieving the MDGs is economic growth. With present GDP Rwanda could not eliminate extreme poverty through redistribution alone, even if it were to redistribute resources equally. Growth is essential for improving the standard of living of the population. However, economic growth is no guarantee that there will be a reduction in inequalities, and if the recent growth in inequalities is not addressed it will prove increasingly difficult to reduce poverty rates further (Leander, 2007). The challenge is to move beyond merely seeking economic growth, to ensuring that the poor benefit from economic growth, recognising the inter-linkages between economic progress and other aspects of social welfare.

Economic growth has been maintained in real terms since 2002, although the rate of growth has been volatile (Figure1). The rate of economic growth would have to increase dramatically if GDP per capita were to reach US\$ 900 by 2012, which is what is estimated as required to ensure that the MDGs are achieved by 2015 (Ministry of Finance and Economic Planning 2007, P120, 121). The Government has decided that it is not realistically achievable and is predicting reaching the US\$ 900 GDP per capita by 2020.

**Figure 1: GDP Per Capita**



(Source: GDP National Account 2009 )

However, to achieve the target for economic growth in EDPRS, and by implication the other targets, including the MDGs, growth needs to accelerate, and this will be dependent on the successful implementation of a number of Government priority policies, including: agricultural reform; an increase in non-agricultural employment and especially a growth in HEs and MSMEs; attracting inward investment; improving the skills base; widening the tax base; increasing foreign earnings; and keeping inflation in check. Growth in the contribution of industry to GDP remains low despite the urgent need for investment in production both to add value to agricultural products for export and for import diversion.

A second prerequisite for being able to fully implement the EDPRS, as we have indicated above, is adequate funding of the Strategy, including ODA that is committed to the SWAp, as promised, and that comes in on time. This remains uncertain.

The 2007 Rwanda Millennium Development Goals Report and Beyond

The 2007 Rwanda MDG Country Report showed clearly the uneven progress the country was making towards the achievement of the MDGs (NISR 2007b). The report concluded that the country:

- was likely to meet MDGs 2 (Universal Primary Education) , 3 (Promote Gender Equality and the Empowerment of Women) and 4 (Reduce Child Mortality);
- was on track for MDGs 6 (Combat HIV/Aid, Malaria and Other Diseases) and 7 ( Ensure Environmental Sustainability) ;
- might miss achieving, at least in part, MDG 1 (Eradicate Extreme Poverty and Hunger), 5 (Improve Maternal Health) and 8 (Develop a Global Partnership for Development).

The 2007 UNDP Country Report (Leander 2007) concluded that the MDGs were achievable provided that spending was scaled up. As we discuss in the section on the EDPRS and in the section on ODA under Goal 8, the necessary level of funding was not considered realistically achievable and the Government concluded that this would mean not achieving some of the MDGs (Ministry of Finance and Economic Planning 2007, P121).

Our analysis of the potential for Rwanda achieving the 2015 Targets reaches broadly similar conclusions to the 2007 Country Report. Our analysis suggests the Rwanda is:

- on track for achieving the Targets for MDG 2 (Universal Primary Education), MDG 6 (Combat HIV/Aids, Malaria and other diseases) and two of the three Indicators for MDG 3 (Promote Gender Equality and Empower Women);
- with accelerated progress has the possibility of achieving the Targets for MDG 4 (Reduce Child Mortality) and MDG 7, Target 7C (Access to safe drinking water and basic sanitation) and MDG 8 (Developing a Global Partnership for Development);
- is off track for achieving the Targets for MDG 1 (Eradicate Extreme Poverty and Hunger), MDG 4 (Improve Maternal Health) and for MDG 7, Targets A+ B (Integrate the Principles of Sustainable Development into the Country's Policies and Programmes and Reverse the Loss of Environmental Losses).

# Goal 1: Eradicate Hunger and Extreme Poverty



**Target: Reduce Poverty by Half the 1990 Level by 2015**

## Indicators

- Proportion of the population below the national poverty line .
- The poverty gap ratio.
- Share of poorest quintile in national consumption.

## Status at a Glance

- Off track

## Status and Trend

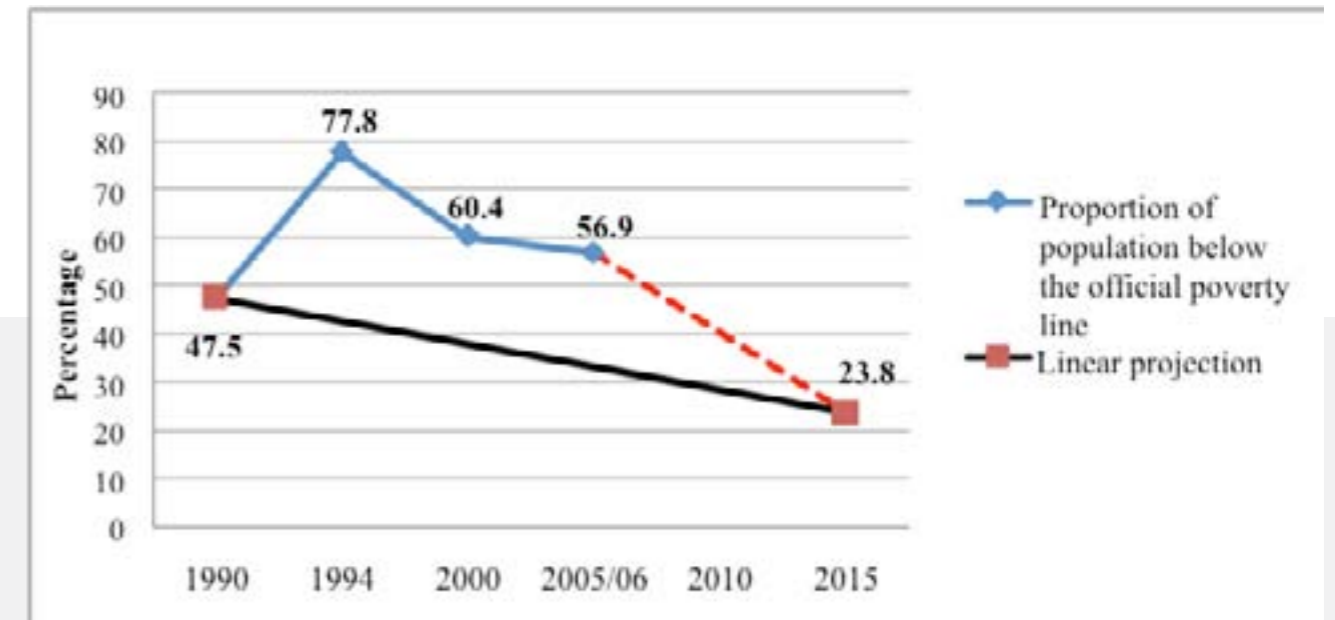
Rwanda has experienced significant economic growth since 2000 (Figure 1 above). The key questions are who has benefited from this economic growth, has there been a reduction in poverty and have there been differential benefits for some groups as opposed to others? The headline message is that poor did gain some benefits but the better off gained more. (Cichello and Sienaert 2009). Poverty fell by 3.5 per cent between 2001 and 2006 but the Gini coefficient (a measure of inequality) increased from 0.47 to 0.51 indicating an increase in inequalities indicating that the better off have benefited from economic growth disproportionately (NISR 2006, P 7). The depth of poverty also fell marginally.

In 2006, the latest year for which data are available, 36.9 per cent of Rwandans lived in extreme poverty, meaning that they had insufficient income to buy the basic basket of food necessary to provide the recommended daily energy intake. In total 56.9 per cent of Rwandans lived below the national poverty line, making daily life a constant struggle for survival (NISR 2007a). The average poor Rwandan had an income 40 per cent below the poverty line (NISR 2006, P8). Over 90 per cent of the poor live in rural areas and the five main causes of poverty are lack of land, soil infertility, weather conditions, lack of livestock and ignorance (Ministry of Finance and Economic Planning, 2007, Ps 12, 13). Lack of land accounted for half of those living in poverty. Those most at risk of poverty are landless households in rural areas who depend on paid farm work or other marginal livelihood activities for an income. The next most vulnerable group are households that depend solely on subsistence agriculture. Women are more likely than men to be landless agricultural workers and households with a female head are more likely to be poor than those with a male head.

The rate of decline in poverty between 2001 and 2006 was very modest, falling from 60.4 per cent in 2001/2 to 56.9 per cent in 2005/6 (Figure 2) with the number of people living in poverty actually increasing by 1 million from 4.8 million to 5.8 million due to population growth (NISR 2007b, P3). Much of the decline was accounted for by a significant fall in poverty in the Eastern Province and this may have been due to a higher than normal poverty count in 2001 due to drought (see section on regional inequalities below).

An analysis of the trend graph for poverty (Figure 2) indicates that there would have to be a significant increase in the rate of reduction in poverty between 2006 and 2015 if the Target of only 23.8 per cent of the population falling below the official poverty line were to be achieved. Whilst the poverty rate looks set to continue to decline, it seems very unlikely that the 2015 Target will be met .

**Figure 2: Population below the Official Poverty Line 1990 – 2005-6**



(Sources: Republic of Rwanda and United Nations 2003, P11; NISR 2006 P4)

Reducing poverty will also, of course, have an impact on achieving the other MDGs. To put it bluntly, when people do not have to worry constantly about how they are going to survive they can take advantage of opportunities for human development. A reduction in poverty, and especially extreme poverty, will have a positive impact on reducing the proportion of the population who suffer from hunger. Given that women are more likely than men to be poor, reducing poverty will improve the lives of women. Women will become healthier, will be less likely to die in childbirth and will be more likely to have healthy babies and to raise healthy children Reducing poverty will also have a positive impact on education, as children from non-poor families are more likely to attend school regularly and stay in school. Higher incomes will also enable household to live healthier lifestyles and take preventive actions such as using safe water to keep themselves and their children healthy (King et al 2009; Lomborg 2009). Reductions in poverty are also likely to encourage greater use of improved methods of farming and the adoption of measures that protect the environment as well as encourage entrepreneurial activity (Orazem et al 2009).

## Inequality Analysis

The analysis should be seen as indicative of the patterns of inequalities in Rwanda in 2010, as much of the data we draw on is five years out of date.

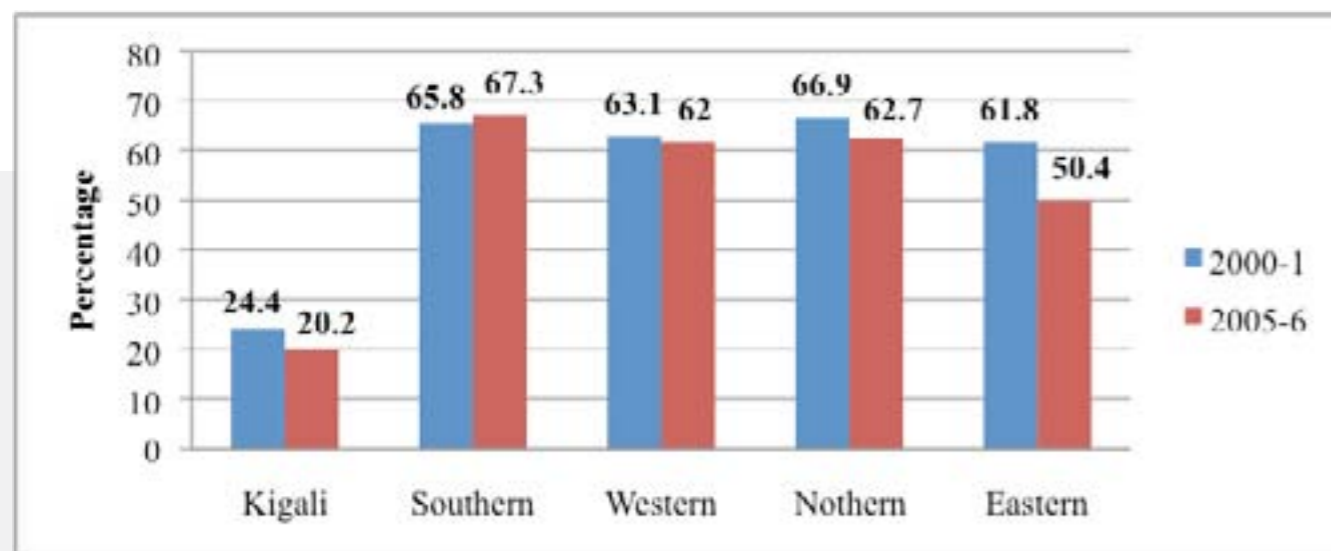
Households have livelihood strategies with most having more than one economically active adult member, and about 40 per cent of workers have more than one job (Strode et al 2007; Vinck et al 2009). Households that do not have more than one economically active member, for example female-headed ones, are especially vulnerable to poverty. By looking at households we assume that all those living in a poor household are living in poverty and all those living in non-poor households are not poor. We cannot break open the black box of the household.



### Regional Poverty

The lowest levels of poverty are in Kigali City, where about a fifth of the population are below the official poverty line, and the highest in Southern Province, where over two-thirds of the population are below the official poverty line. Eastern Province has the lowest levels of poverty after Kigali, with half its population living in poverty, followed by Western Province and Northern Province (Figure 3). The depth of poverty is also lowest in Kigali followed by Eastern Province and fell in these two provinces between 2001 and 2006 whilst remaining virtually unchanged in the other provinces (NISR 2006, P6). Growth rates in inequalities were high in the Eastern, Western and Southern provinces but fell marginally in Kigali and the Northern Province (NISR 2006 P8).

Figure 3: Poverty Head Count by Province, 2000-1 and 2005-6



(Source: NISR 2007a, P6)

The fall in poverty was greatest in the Eastern Province (accounting for 68% of the total reduction in poverty) and to a lesser extent in the Northern Province and Kigali. It remained virtually unchanged in Western Province and increased marginally in the Southern Province, although the increase was not statistically significant (Figure 3). The sharp decline in the poverty rate in the Eastern Province may have been due to a higher than normal rate in 2000-1 because of drought and/ or because of increased productivity and trading activities (Ministry of Finance and Economic Planning 2007). Eastern Province also has the largest proportion of cultivators with medium (0.7 – 5.0 ha) and large (> 5ha) farms (NISR 2007a, P11). However, the impact of the decline in poverty in the Eastern Province was somewhat offset by the significant growth in inequalities (NISR 2006. P7).

### Gender and Poverty

Women are more vulnerable to poverty than men. Especially vulnerable to poverty are female-headed households; in 2006, 60 per cent were in poverty, compared with a national average of 57 per cent. However, between 2001 and 2006 the gap between the proportion of poor household headed by women and those headed by men narrowed to three percentage points (NISR 2007a, P47). Women are also more likely to be living in poverty than men. Fifty-five per cent of working women but only 44 per cent of working men live in poverty (NISR 2007a, P39).

### Rural Poverty

Poverty remains a disproportionately rural phenomenon, with around 63 per cent of the rural population being below the poverty line, compared with 20 per cent in Kigali and 42 per cent in other urban areas (NISR, 2006, P4)). About 90 per cent (4.93 out of 5.38 million) of poor people live in rural areas. Vinck et al (2009 Ps 44 - 46) provide an interesting analysis of the livelihood profiles of rural households and how these relate to likely vulnerabilities suggesting that an important route out of poverty for those in rural areas is to engage in non-farm income generating activities. Households that are able to combine agriculture with other income-generating activities

are less vulnerable to poverty than those who have a high reliance on agriculture. Programmes designed to improve agricultural production and increase the incomes of subsistence farmers may disproportionately benefit those with larger landholdings enabling them to invest in non-farm livelihood income generating activities. Inequalities (the gap between the poorest and the better off) increased in rural areas between 2001 and 2006 but declined in Kigali and other urban areas, although inequalities remain higher in urban than rural areas (NISR 2006, P7). This suggests that there may be a growing divide between rural elite who are able to diversify their income sources and those who remain mainly or solely dependent on subsistence agriculture or paid farm labouring (Abbott et al 2010).

### Landholding

Landholding, not surprisingly given that 70 per cent of the population remain dependent mainly or solely on subsistence agriculture for their livelihood, is strongly related to poverty. Ninety per cent of the population own land but more than 60 per cent cultivate less than 0.7 hectares, the amount required for the average household to live above the poverty line. In 2006 more than 70 per cent of those in the lowest consumption quintile cultivated less than 0.7 ha and more than 50 per cent of those in the highest quintile cultivated more than 0.7 ha. There was a large reduction between 2001 and 2006, amongst the small cultivating group (less than 0.2 ha of land), in those who predominantly engaged in subsistence agriculture, and a corresponding increase in the numbers reliant on waged work as their main source of income (NIRS 2007a, P11).

Table 1 sets out the major bottlenecks in poverty reduction, the policies and plans to deal with them, budgeting and financing for programmes for poverty reduction and service delivery.



Bottleneck	Policy and Planning Framework	Financing and Budgeting Framework	Problems in Service Delivery to the Public
High Fertility Lack of take-up of modern methods of contraception.	Incorporated in Health Policy and Planning. Contraception available at health centres.	Contraception available free under the community health programmes.	Over ninety per cent of women of childbearing age are aware of modern method of contraception and say they intend to use them, but take-up remains low. Possible reasons include: difficulty of access to health centres in rural areas, lack of stock of modern contraceptives, high child mortality rates encouraging families to have more children, use of child labour, and cultural beliefs which oppose the use of contraceptives.
Underperforming agricultural sector: • CIP • Marketing • Improved methods of farming • Privatisation and consolidate-ion of land • VUP.	Agricultural Policy Monitored through EDPRS M + E Framework.	Financed through EDPRS. Budget on target.	Need to evaluate the CIP to determine what aspects of the programme are working, how it affects poverty reduction, how it can be expanded and its effectiveness given Rwanda's reliance on rain-fed agriculture. Significant increase in agricultural production requires more support to farmers for marketing produce, including improved management of producer marketing cooperatives and the development of food processing capacity. Need to explore risks and come up with mitigation strategies for small-holder farmers who are being encouraged to/are moving into commercial farming. Slow up-take by farmers of improved methods of farming exacerbated by deficit in agricultural extension workers. Use of farm residue for fuel due to shortage of wood for cooking. Also there is a need for more involvement of the private sector in the production and/or distribution of fertilizers and improved seeds. The successful implementation of the credit element of VUP, which is intended to enable poor farmers to improve productivity, needs to be carefully monitored. The use of the credit element of VUP in the initial phase to distribute fertilizer seems not to have worked well.
Low private Sector Growth.  VUP.	Policies and strategies are in place to encourage the growth of the private sector including HEs and MSMEs.	Included in EDPRS.	Key constraints to business start-up and private sector growth include: access to finance and the high cost of borrowing; a skills deficit; a lack of trust; poor physical infrastructure and the high costs of energy and transport; and poor communications and access to markets.  The credit element of VUP will support poor households in starting up non-farm enterprises thus supporting the growth of household enterprises and diversification away from dependency on agriculture.

Low Tax Base.	Steps are being taken to understand the reasons why businesses do not register and why even those that register often do not pay taxes.	Contraception available free under the community health programmes.	A number of reasons have been identified to explain the low levels of registration and non-payment of taxes. These include poor understanding of the system, low levels of profitability, poor regulation and inadequate enforcement.
High levels of poverty including extreme poverty.	Social Protection Programme.	Included within EDPRS but to be a decentralised programme.  Lack of capacity in Ministry of Local Government to lead the social protection sector, with a number of posts remaining unfilled. Low proportion of aid to social protection programme.	The programmes have only recently been introduced and there is a need for monitoring and evaluation in order to assess the impact and the numbers graduating from the schemes. Coordination of the schemes at national and local levels needs to be improved as well as greater information-sharing between central and local government administrators. The one-cow-a-family scheme experienced a setback when it became evident that some households had been given a cow who did not meet the criteria. The data available for monitoring are of poor quality, being inconsistent and incomplete and not always aligned with EDPRS Targets. There is concern that some double benefiting from schemes is or may be occurring because insufficient care is being given to the selection of beneficiaries. Baseline data have been collected for some of the schemes and there are plans to commission an evaluation study. There is a need to support local government to become more responsive to local needs and to be given more control over the funding for the programme to ensure local accountability.
Low levels of inward investment.	Good Business Strategy.		The Good Business Strategy was designed to improve the 'soft' business climate in Rwanda and thereby attract inward investment. The strategy has been very successful in improving the business climate; Rwanda has moved from 143 to 67 on the Doing Good Business Index. However, this has not yet translated into more inward investment. The main reasons are the geographical location of Rwanda, poor physical infrastructure and the high costs of transport and fuel. The competitive advantage of a cheap and abundant labour force may be outweighed by a skills deficit.



### Priorities for Intervention to Accelerate Progress to Achieve MDG 1a

- Population Control.
- The social protection programme including VUP and one-cow-a-poor family programme.
- The Agricultural Reform Programme.
- Speeding up land registration.
- Build trust and confidence to encourage people to move into villages.
- Improving rural infrastructure.

### Examples of Policies and Projects that have Contributed to Accelerated Progress

#### Land Tenure Regularisation

This scheme is improving peoples' lives and resolving land disputes by enabling families to register their land and have full legal ownership of it. This gives families the confidence to invest in improving their land. It also provides collateral for them to get credit from financial institutions to enable them to invest in improving their agricultural practices. To date 3,481 families in seven Cells in Bumbogo Sector have benefited from the scheme and successfully registered their land. The scheme is to be extended country wide.



### Target: Productive and Decent Work for All, Including Women and Children Indicators

- Growth rate of GDP per person employed.
- Employment-to-population ratio.
- Proportion of people employed living below the national poverty line.
- Proportion of own account and contributing family workers in total population.

#### Status at a Glance

- Off Track

#### Status and Trend

This is a new Target introduced in 2007 which recognises the importance to human wellbeing of being engaged in productive labour. Employment is important in reducing poverty and is as important for women as men. The focus on female productive employment acknowledges the contribution of female employment to poverty and hunger reduction at the household level and the importance of women being economically independent of fathers and husbands. Here we are focusing on the individual and their relationship to the labour market and the right of the individual to a job that pays a decent wage.



Decent employment is the main route out of poverty and there is a decent job deficit in Rwanda. A majority of the population are engaged in subsistence agriculture, nearly 60 per cent of women are dependent family workers and a majority of those in non-farm jobs work in the informal sector. If the poverty rate is to decline then there has to be a growth in non-farm employment. Between 2001 and 2006 the labour market grew by almost a quarter and was therefore able to absorb the increase in the population of working age. There was a 19 per cent increase in jobs - a 22 per cent increase for men and a 16 per cent increase for women. There was a decline in those whose main job was subsistence farming and an increase in farm labouring and in non-farm employment (Figure 4; Strode et al P15).

#### Growth Rate of GDP per Person Employed

Real GDP per capita has been growing since 2002 (see Figure 1 above); however, we were unable to find any information on the growth rate of GDP per person employed in non-farm jobs and so cannot comment on this.

#### Employment-to-population Ratio

The economic activity rate in 2006 for those aged 15 years and over was 83 per cent of whom 82 per cent were working, down slightly from 2001 when the economic activity rate was 86 per cent, of whom 84 per cent



were working. This decline is accounted for by an increase in young people in full-time education and therefore not available for work (NISR 2007a, P26) and is a positive development. Women are slightly more likely to be economically active than men.

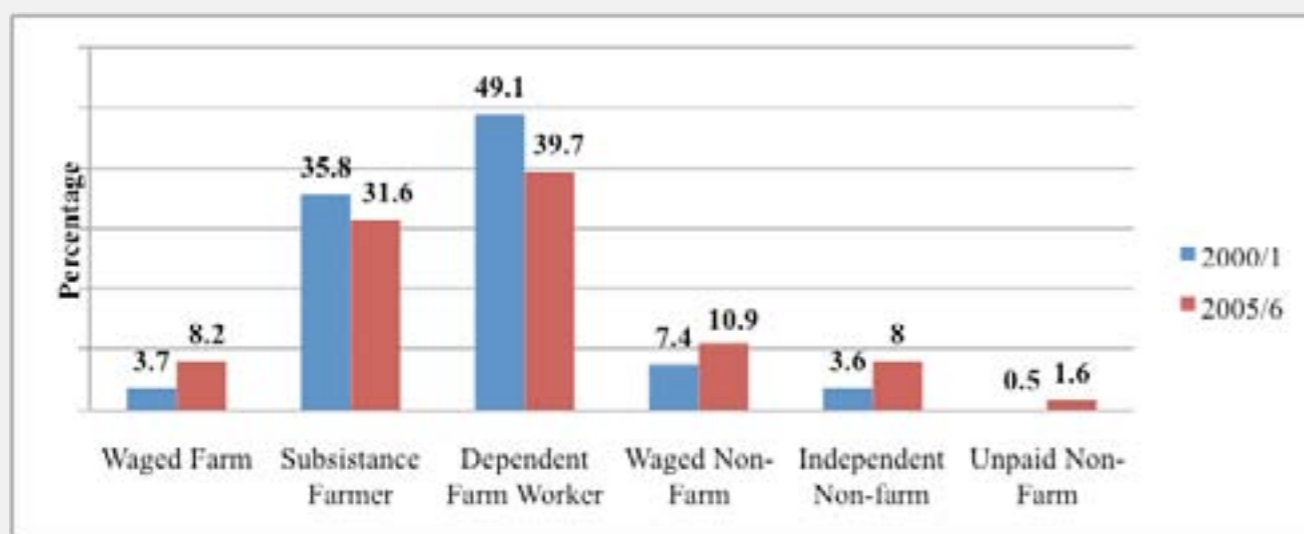
#### Proportion of People Employed Living below 1 US\$ (PPP) per day (national poverty line)

In 2006, 55 per cent of workers earn a poverty wage. This ranged from 26 per cent of those in waged non-farm work to 72 per cent of those whose main occupation was waged farm work. Non-farm workers were much less likely to be living in poverty than those whose main livelihood is derived from agriculture. Women were more likely to be in the kind of employment that pays a poverty wage than men (Strode et al 2007, P43).

#### Proportion of Own Account and Contributing Family Workers in Total Population

In 2006, 72 per cent of workers worked as own account subsistence farmers (32%) or contributing family members (40%), a decline from 85 per cent in 2001. Eight per cent of workers in 2006 were independent non-farm workers and just under two per cent contributing family members, compared with four per cent and 0.5 per cent respectively in 2001 (Figure 4).

Figure 4: Changes in Employment Status between 2000-1 and 2005-6



(Source: Strode et al 2007, P10)

#### Inequality Analysis

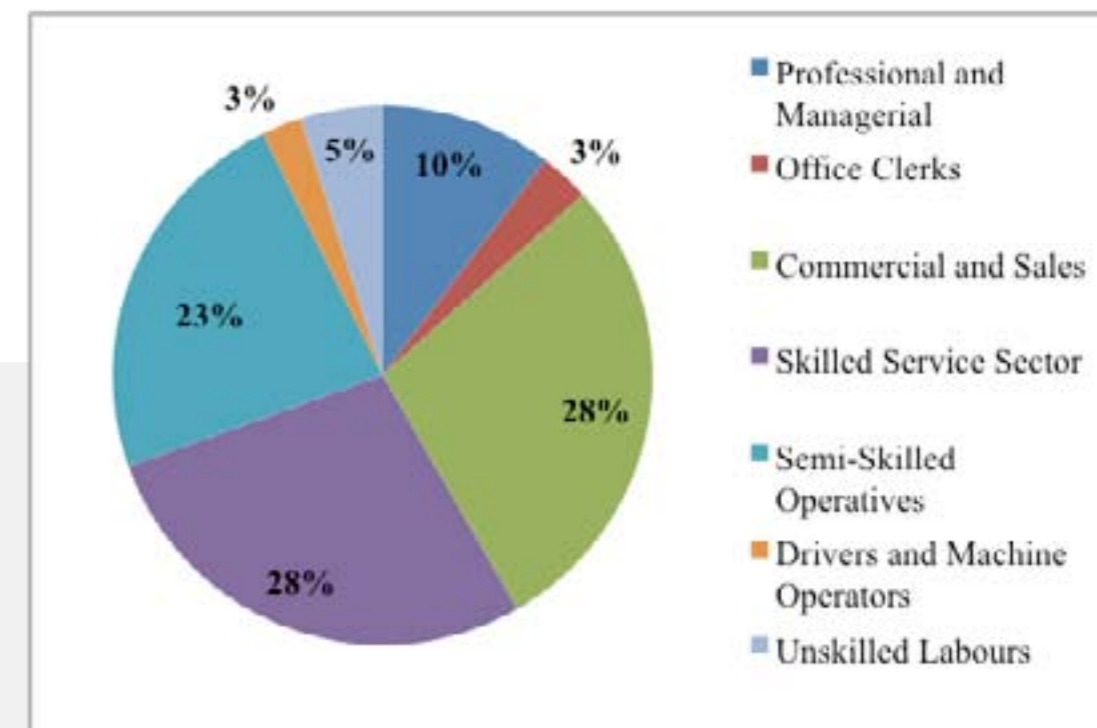
##### Employment and Unemployment

The vast majority of the adult population are economically active, with 83 per cent of those aged 15 years being engaged in income generating activities. The challenge in Rwanda is providing decent employment. It is poor-quality employment that keeps the poor poor. Those with a decent job, one that pays a living wage, are more likely to live in urban than rural areas, to live in Kigali, to have at least secondary school education, to be male and to have paid non-farm employment.

Unemployment is very low as the vast majority of the adult population have to engage in income generating activities to survive. The officially unemployed are concentrated in Kigali, tend to be female and live in households in the richer consumption quintiles. There is, however, evidence of high levels of under-employment, especially in rural areas, and a growing concern about young people eking out a marginal existence in urban areas (Abbott et al 2010). Independent farmers and dependent farm workers only work on average for about 24 hours a week (Strode et al 2007, P58). Forty per cent of workers in 2006 had a second job. Farmers and small business owners in rural areas are commonly doing more than one job. Secondary employment in rural areas is generally either seasonal day labouring on farms or running a small business, most frequently trading (Strode et al 2007).

Households in rural areas that incorporate a non-farm enterprise as well as subsistence farming are generally better off than those who rely just on subsistence agriculture for their livelihood. Those that have income from non-farm employment have, on average, the highest incomes (Vinck et al 2009)

Figure 5: Occupational Groups 2006 – Non-Farm



(Source: Strode et al 2007, P20)

The majority (59%) of non-farm jobs (own account and employee) are routine non-manual (office clerks, commercial and sales, and skilled service sector). Only 10 per cent of non-farm jobs are professional and senior managerial, and just over 31 per cent are manual (unskilled manual, semi-skilled operatives, and drivers and machine operators) (Figure 5).

A majority of those in waged work are employed in the informal sector. Over 91 per cent of those in waged farm work are employed in the informal sector, compared with 58 per cent of those in non-waged farm work (Strode et al, P32). The higher the level of education the lower the likelihood of being engaged in agricultural work; 97 per cent of those with higher education are employed outside the agricultural sector compared to only 11 per cent of those with no education (Strode et al 2007, P20).

#### Poverty and Employment

Fifty-five per cent of economically active adults earned a poverty wage in 2006 (NISR 2007a, P85). Those engaged in non-farm work were significantly less likely to be poor than those engaged in farm work, but the poorest group were those employed as farm labourers. Farm work (paid and non-remunerated) is the fastest growing sector of employment in the country and those engaged in this type of work are amongst the poorest. Three distinct groups are engaged in this type of employment: a relatively elderly group of heads of households who have been doing it for many years; the adult children of very small-scale farmers; and live-in farm workers.

A majority of those dependent on agriculture are poor, ranging from 72 per cent of those engaged in waged farm work to 58 per cent of independent farmers. However, nearly three quarters of those in paid non-farm employment, just over two thirds of those in unpaid non-farm employment and just under two thirds of those in independent non-farm work earn a living wage (Strode et al 2007, P42).. This suggests that the increase in non-farm employment between 2001 and 2006 had a positive impact on poverty reduction and reinforces the

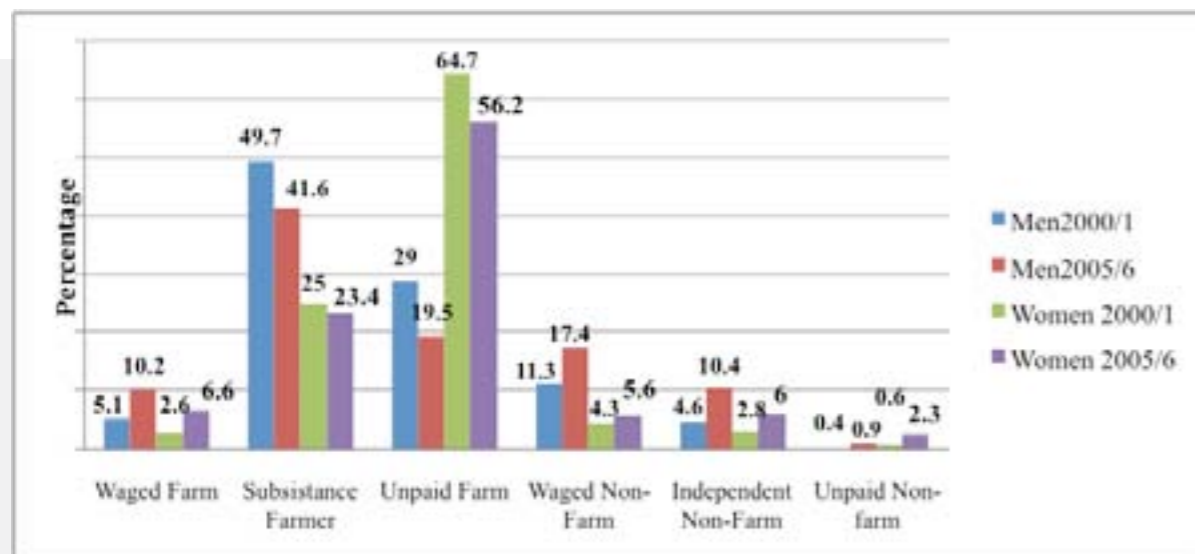


importance of creating non-farm employment opportunities as an important element of the poverty reduction strategy. Especially important in this regard is supporting the growth and reducing the risks of non-farm family enterprises.

### Gender

A higher proportion of women than men is economically active. Men are more likely than women to be in paid employment and women are more likely than men to work as unpaid (family) farm workers. Male employment growth between 2001 and 2006 outstripped female employment growth, except in Kigali. The largest numerical change in the workforce structure for women has been the increase in paid agricultural work while for men it is in non-farm work (Figure 6).

**Figure 6: Main Occupation of Men and Women 2000–1 and 2005–6**



(Source: Strode et al 2007, P10)

Men are disproportionately moving out of farm work and captured three quarters of the new jobs created between 2001 and 2006 as well as being more likely to start a small business than women. In total 19 per cent of workers were in paid non-farm employment in 2006 (salaried and own account), 12 per cent of women compared to 28 per cent of men. Women are also less likely to be in paid farm work than men, but are much more likely than men to be working as unpaid farm workers. Men are also more likely to be own-account subsistence farmers (Figure 6).

The majority of young women take up employment on the family farm, while only half of young men do so. About a quarter of young men take up waged employment, half of them in farming and half in other sectors.

In terms of non-farm employment women are mainly employed in commerce and sales and the skilled service sector, although even in these sectors more men than women are employed. Men are more likely to be employed in all non-farm sectors than women and are notably more likely to be employed as professionals, in the skilled service sector, as semi-skilled operatives, drivers and machine operators and unskilled labourers. There are regional differences, however, as women are significantly more likely than men to be employed in commerce and sales and the skilled service sector in Kigali (Strode et al 2007).

Rural women's time is a scarce commodity. Studies estimate that women spend a third of their time in agricultural labour and about 30 per cent on household duties while men spend about 19 per cent of their time on agricultural labour, three per cent on household duties and 54 per cent in diverse leisure activities (Strode et al P58).

### Age and Employment

Employment also varies by age, with just over one per cent of those aged under 11 years and 10 per cent of those aged 11– 15 years being economically active. The proportion in employment increases with age with the peak being for the 30–50 age groups of whom 96 per cent are employed. It then declines but just over 76 per cent of those over 65 years are economically active (Strode et al 2007, P3).

### Provincial Economic Activity Rates

Economic activity rate varies by province, with both men and women being less likely to be economically active in Kigali than outside, and Kigali being the only regional administrative area where men are more likely to be economically active than women (NISR 2007a, P27; Figure 3).

Waged non-farm employment is heavily concentrated in Kigali, where 48 per cent of workers are employed in this type of employment and 18 per cent are independent non-farm workers. The proportion of workers in these types of employment varies little by province, although a slightly lower proportion of workers are in non-farm employment in the Eastern Province than the others. Even in urban areas outside of Kigali a majority (56%) are employed in agriculture (Strode et al P8).

In terms of employment growth between 2001 and 2006, there are differences between the provinces. In all provinces there has been an increase in waged farm work and in non-farm employment. The largest growth has been in Eastern Province, where farm employment grew by 20.4 per cent and non-farm employment by 332 per cent, and the lowest in Northern Province, where farm employment actually fell by six per cent but non-farm employment grew by 110 per cent. Overall, employment grew by 34 per cent in Eastern Province, 25 per cent in Kigali, 20 per cent in Western Province, 17 per cent in Southern Province and three per cent in Northern Province. In Eastern Province independent farming increased, while in Southern Province it remained static, and it decreased in the other two Provinces (Strode et al 2007, P12). There is some evidence that a growth in employment opportunities attracts migrants, with Kigali and the Eastern Province attracting a significantly larger number of migrants than the other provinces and Northern Province experiencing higher rates of out-migration than the other provinces (Strode et al, P13).

### Bottlenecks

- Low levels of literacy.
- Low level of employability skills, and a mismatch between skills people have and those demanded by the labour market.
- Inadequate provision of training in technical and vocational skills.
- Difficulty for household and micro enterprises (and those wishing to establish them) of accessing capital.
- Business development centres not fully operational.
- Lack of recognition of the need to provide support for the start-up and growth of household enterprises.
- Poor quality education at all levels from basic to higher education.

### Priorities for Interventions to Accelerate Progress to Achieve MDG1b

- Investment in vocational and technical education.
- Scaling –up of projects that have been successfully providing support, mainly to young people and women, to enable them to establish productive household enterprises (HEs).
- Support for the business development centres to become fully operational and support for other training for those running HEs and MEs.
- Improving access to finance in rural areas, especially for HEs and support for Umurenge SACCOS.
- Support for the development and operation of cooperatives.
- Investment in improving the quality of education at all levels including higher education.

## Examples of Policies and Projects that Have Contributed to Accelerated Progress

### Rwandan Handicrafts

The Rwandan Handicrafts through International Commerce initiative with the support of the Ministry of Commerce has developed a large market for its products. Profits from the sales have positively impacted on the producers of these handicrafts including a significant number of women.



Target: Halve the Proportion of People who Suffer from Extreme Hunger

#### Indicators

- Prevalence of underweight children under five years of age.
- Proportion of the population below minimum level of dietary energy.

#### Status at a Glance

- On track for children under five years of age.
- Off track for population as a whole.

#### Status and Trend

There are two Indicators used to measure progress towards halving the proportion of the population who suffer from hunger: the prevalence of children under five who are under weight for height, and the proportion of the population who have below the recommended minimum energy intake of 2300 calories a day.

Rwanda looks on track to achieve the 2015 Indicator of reducing the proportion of underweight children to 14.5 per cent (Figure 7) but not for reducing the proportion of the population who have below the minimum energy intake (Figure 8).

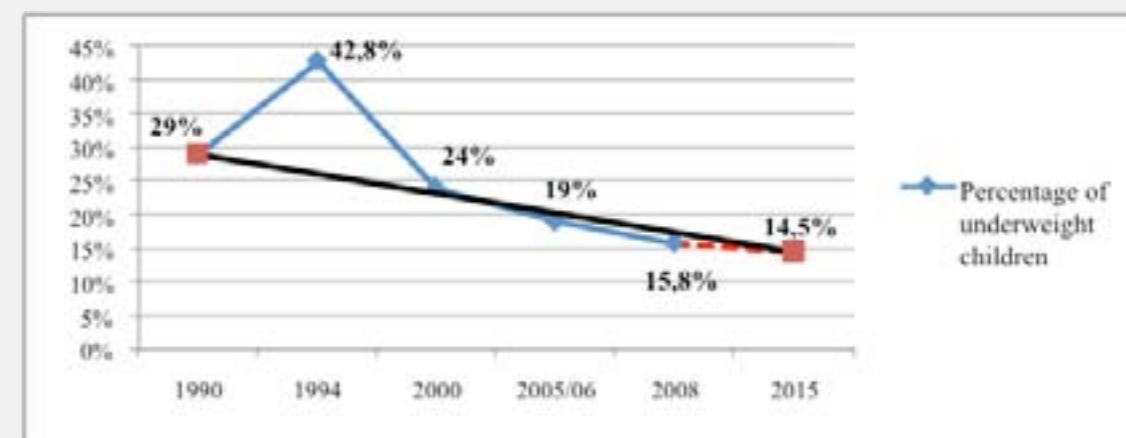
The main reason children and adults go hungry is because of poverty. The chronically poor are unable to feed themselves and their children adequately. They go hungry on a daily basis. Inadequately nourished children are

likely to be developmentally delayed and suffer brain damage meaning they cannot benefit fully from schooling. Inadequately nourished adults are unable to be fully productive. Children and adults alike are vulnerable to a range of debilitating and in some cases life threatening diseases.

There is some evidence that there have been significant improvements in food security since 2006 due to the implementation of new agricultural policies and strategies. Rwanda as a whole has now achieved food security, although this does not mean that all areas of the country are food-secured or that all the population has the means to have an adequate intake of food. The Government has also put in place a social cluster specifically to deal with the issue of child malnutrition, involving all relevant ministries. A feeding programme for pre-school children and a school feeding programme have been put in place. Given the strategies now in place there is confidence that the rate of child malnutrition will continue to decrease.

However, nearly half of all Rwandan children show signs of malnutrition. According to 2009 data, 52 per cent are stunted, five per cent wasted and 16 per cent underweight, which is generally comparable to the situation in 2005 (Vinck et al 2009 P71). There was a slight decline, from 19 to 16 per cent, of children under five years suffering from severe malnutrition but with no evidence of a change in those suffering from chronic malnutrition or of wasting (Vinck et al 2009 P72).

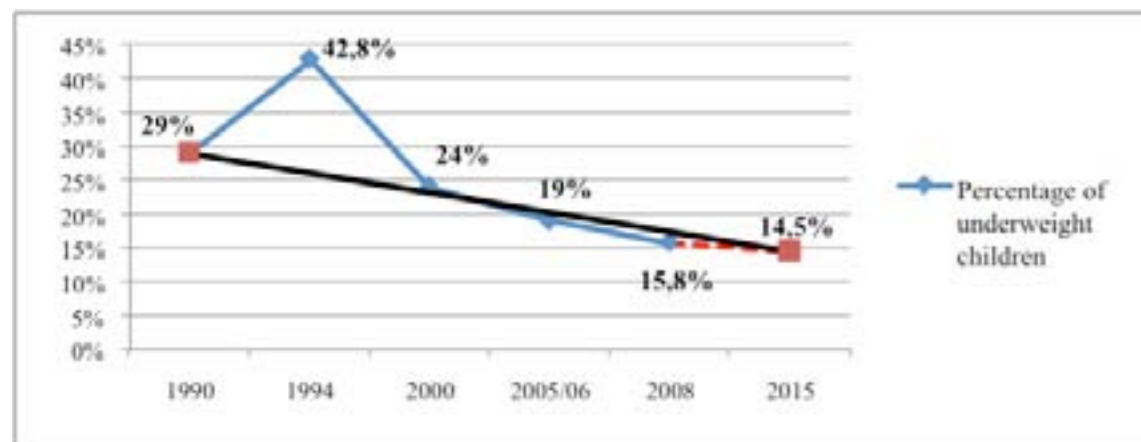
Figure 7: Prevalence of Underweight Children



(Sources: Republic of Rwanda and United Nations 2003, P14; NISR2009, P38; Vinck et al 2009, p71)

There was a decline between 2001 and 2006 in the proportion of the population living in extreme poverty (i.e. with inadequate income to purchase the minimum food basket), from 41 per cent to 37 per cent (Figure 8). More recent research suggests that there may have been a further decline in extreme poverty (Vinck et al 2009, Ps 68-69).

Figure 8: Proportion of the Population Below Minimum Level of Dietary Consumption



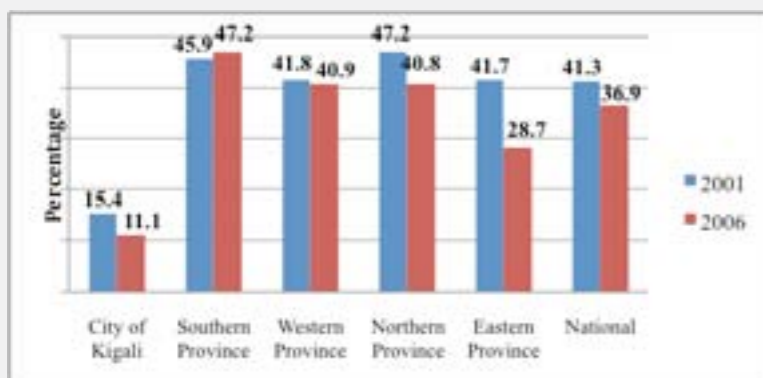
(Sources: United Nations 2003; NISR 2006, P46)

### Inequality Analysis

Inadequate dietary intake and malnutrition are closely correlated with poverty. The risk of those in severe poverty being malnourished is extremely high. In 2009, 59 per cent of children in the poorest quintile living outside of Kigali were stunted, compared with 43.4 per cent in the highest quintile (Vinck et al 2009). Given the patterns of poverty in Rwanda, it is not surprising that severe and chronic malnutrition varies by urban and rural areas. While the figures are for 2006, the difference in child malnutrition between urban and rural areas is unlikely to have changed dramatically, although the overall proportion may have declined. In 2006, 19 per cent of children were severely malnourished - 20 per cent in rural areas and 14 per cent in urban areas - and 45 per cent suffered from chronic malnutrition - 47 per cent in rural areas and 33 per cent in urban ones (NISR 2009, P38). Poverty and/or having a poorly educated mother can also increase vulnerability to malnutrition.

Extreme poverty varies by location with 93 percent of those in extreme poverty living in rural areas. The lowest rated is in Kigali City and the highest in Southern Province. The rate fell nationally between 2001 and 2006 with the largest decrease being in the Eastern Province giving support to the view that poverty reduced was due to a poor harvest in 2000 and a good one in 2005 (Figure 9). A high proportion of household expenditure is on food, 62 per cent nationally in 2006 down from 67 per cent in 2001. In Kigali about half of average household expenditure is on food but this rises to over 60 per cent in the other Provinces with a high of 66 per cent in the Northern Province (NISR 2006, P47).

Figure 9: Extreme Poverty by Province 2000-1 and 2005-6



(Source: NISR 2006, P46)

### Key Implementation Bottlenecks

- Only 50 per cent of districts are implementing a community-based nutritional programme and only 45 per cent of children aged less than 5 years have been weighed at a health facility.
- There is no nutritional strategy for HIV-positive children and mothers, and only 17 per cent of malnourished children who should be referred for specialist treatment are so referred (Ministry of Health et al 2009).

### Priorities for Support to Accelerate Progress to Achieve MDG 1C

- Evaluate and extend the social protection programmes.
- Intensifying nutritional programmes especially amongst the poorest.
- Programmes for de-worming children.
- Screening of all under-5s for malnutrition, TB and malaria and adequate nutrition and medical treatment should be provided for those found to be in need.

### Examples of Policies and Projects that have contributed to Accelerated Progress

The main contribution to accelerated progress has been the improvements in farming methods increasing crop yields. The challenge now is to encourage and enable more farmers to use agricultural inputs and improved seeds if the Targets for MDG 1.1 and 1.3 are to be achieved.

#### Crop Intensification Program

To address the problem of the falling productivity of agriculture and the minimal use and low availability of fertilizer in the country, the Government of Rwanda embarked on a plan to improve productivity and increase fertilizer availability through the Crop Intensification Programme (CIP) in August 2007. During the 2008 season (September 07-January 08) pilot zones and crops were identified for this programme and activities were started. The programme took place in eight districts: Kirehe, Kayanza, Bugesera, Gatsibo, Musanze, Burera, Rulindo, and Gicumbi.

The core activities of the programme were the bulk buying of fertilizer and seeds by the Government, the training of district and sector agronomists as well as beneficiary farmers in the application of fertilizers, and support throughout the season. It was necessary to identify areas suitable for the programme and to subsidise the transport to rural areas and distribution of fertilizers and seeds on credit to the farmers. The storage of produce at village level in hermetic cocoons had to be organised, markets for the produce found and methods for recovering the cost of the fertilizers and seeds in money as well as in kind agreed. Bulk buying of fertilizers was necessary, as fragmented orders resulted in quantities not being economically efficient in terms of the cost of transportation. In addition to buying fertilizer in bulk the Government also bought improved seeds for maize, wheat, Irish potatoes and cassava planting in bulk. This was seen as necessary as the varieties being used in Rwanda were seen as incapable of benefiting optimally from increased fertilizer application.

The Crop Intensification Programme has resulted in improved crop yields and increased incomes to the farmers included in the pilot programme. The challenge is to build on this programme and extend it to other parts of the country.



Data Availability – Main Sources	Data Quality	Challenges	Recommendations
Integrated Household Surveys 2001 and 2006. Demographic and Health Survey - most recent 2007-08 Comprehensive Food Security and Vulnerability Analysis and Nutritional Survey, most recent 2009	The surveys are of high quality and designed to produce valid and reliable data. The reports provide an excellent descriptive account of the findings of the surveys.	The surveys are carried out only periodically.	More regular surveys should be carried out to enable monitoring of progress towards achieving the MDGs. Capacity to conduct, process and analyse the survey data at NISR should be increased.
NISR Annual Reports	The reports include only data approved by NISR.	Lack of capacity for producing timely reports.	Increase capacity.
EDPRS Monitoring Reports. (These cover all the Government's EDPRS Targets.)	Data returned by local and central government.	Lack of reliable MISs, lack of capacity in local and central Government for data collection and analysis, and not all the MDGs are incorporated in the M + E Framework.	All MDGs should be included in the M + E Framework and where there are not specific targets for 2015 the Government should determine its own.

## Goal 2: Education for All



### Target: Reduce Poverty by Half the 1990 Level by 2015

#### Indicators

- Proportion of the population below the national poverty line .
- The poverty gap ratio.
- Share of poorest quintile in national consumption.

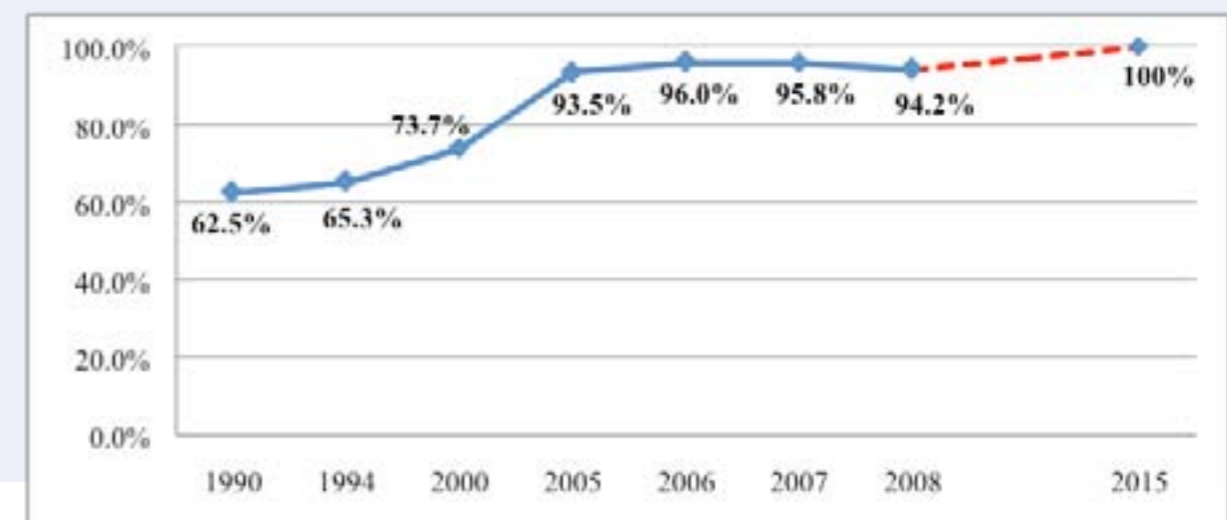
#### Status at a Glance

- Off track

#### Status and Trend

Building on its success in expanding access to primary education, the Government's flagship policy in education is the introduction of universal basic education. All children are entitled to nine years of schooling and a programme to expand senior secondary school provision will begin in 2012. The Government also has an ambitious programme to expand technical and vocational education and to drive up the quality of higher education, especially in the expanding private sector.

Figure 10: Net Enrolment in Primary School



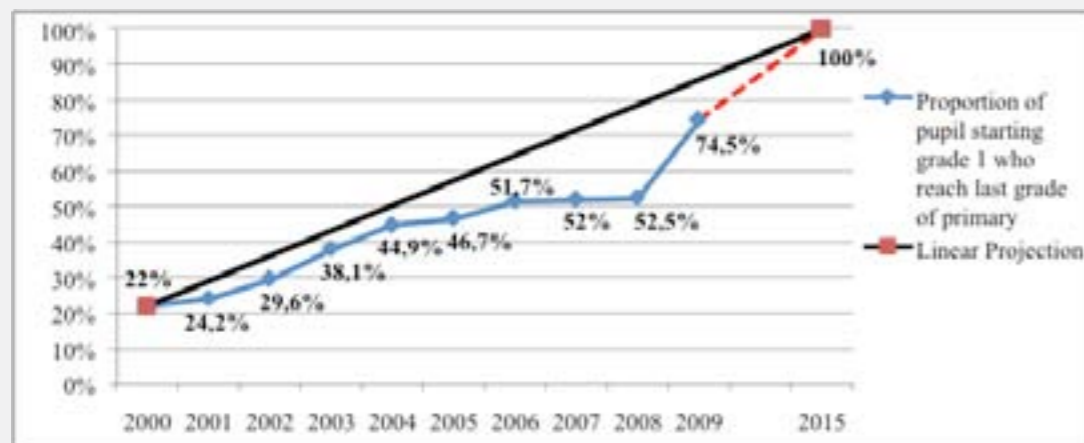
(Source: Republic of Rwanda and United Nations 2003, P15; NISR 2007b P12; NISR 2009, P56)



Progress to achieving the education Goal continues to be made and it seems highly likely that Indicator 2.1, 100 per cent net enrolment in primary education will be met in the very near future. The primary school enrolment rate was 94 per cent in 2008 up from just over 60 per cent in the mid-1990s, with net enrolment increasing at a moderate pace until 2000 and then rapidly accelerating to 2005. This has been mainly attributed to the introduction of free primary schooling. Between 2005 and 2008 the net enrolment rate increased only slightly (Figure 9). The challenge is to make the final push to achieve the 100 per cent net enrolment rate.

Progress in reaching the Indicator of a hundred per cent of pupils completing primary school (defined as the number of children completing primary school as a proportion of all 12 year olds) is slower but it could still be met (Figure 10). However, it looks challenging and there would need to be significant additional support to accelerate progress in the sector that already has the largest share of the Government budget and good development partner support. Progress to achieving this Indicator has been volatile. Rapid progress was made between 2000 and 2006, when the gross completion rate reached 52 per cent. However, from 2005 to 2008 progress was very slow, with the increase being less than one percentage point and the gross completion rate only reaching 53 per cent. The most recent data, reported at the 2010 Government Retreat, indicate that the completion rate was 75 per cent in 2009. If the rate of progress achieved between 2008 and 2009 continues, then there is a possibility of the indicator being achieved.

Figure 11: Primary School Completion Rates



(Source: NISR 2007a P12; NISR2009, P63, Education Sector strategic plan 2010-2015)

The main challenge is to keep children in school once they attend, and this is likely to be achieved by improving the quality of schools and education, and by schools working with parents (IPAR 2009). There is also evidence that parents are more likely to keep their children in school if they will be able to continue into the secondary phase. The introduction, by the Government, of free basic education enabling all children to attend school until the end of the junior secondary phase may have a positive impact on primary school retention and completion rates, as may the adoption by the Government of the Child Friendly School standard (Ministry of Education, 2008).

However, the issue of the quality of education remains, especially in rural areas and for children for poorer homes. One measure of the quality of education is the progress that children make through school, the time they take to achieve a given standard. This is a better measure of systems performance than the gross completion rate. If we consider the net (on time) primary completion rate a very different picture emerges. The net primary completion rate in 2006 was just five percent and is estimated to be between 28 and 50 per cent by 2020 depending on the amount of ODA received and how it is spent (Lofgren et al).

Achieving a 100 per cent literacy rate (without putting in place a remediation programme for illiterate young people) is dependent on getting all children into school and keeping them there at least until they

have become functionally literate. The most recent figures indicate that the literacy rate for 15-24 year olds stood at 77 per cent in 2006, an increase from 57 per cent in 2001 (NISR 2007b P12), suggesting reasonably good progress, but this is based on self-definition and not systematic testing (NISR 2007a). Good progress is likely to continue to be made as a higher and higher proportion of young people have had at least some primary education but it is unlikely that 100 per cent of 15-24 year olds will be literate by 2015.

The Government's Education Policy and the EDPRS have strategies in place to improve the quality of primary education and ensure that schools are child-friendly. Improving the quality of primary school education requires additional resources, although there is some evidence that working with parents and encouraging them to send their children to school can also increase attendance and retention rates. The local monitoring of the attendance of children as part of the scheme to monitor progress to achieving the MDGs through Umuganda is also likely to improve attendance and completion rates. Reducing poverty, increasing the numbers of non-farm employment opportunities, better access to clean drinking water and the introduction of the improved cook stove are also likely to have a positive impact on school attendance and retention rates, as mothers will be less likely to keep daughters at home to help with domestic work.

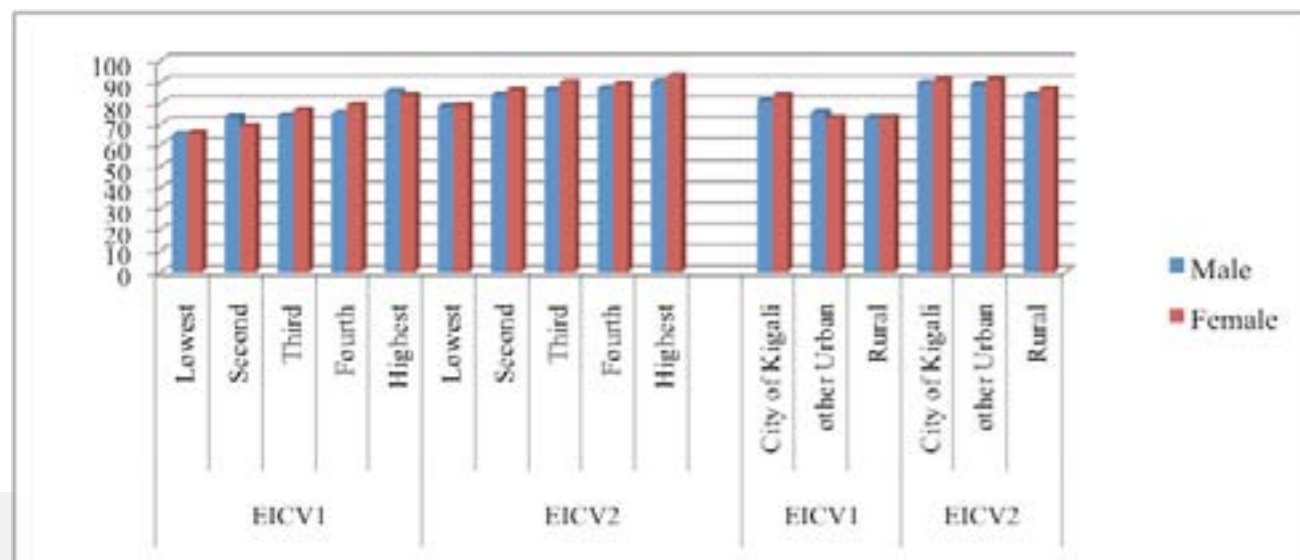
The increase in educational opportunities will have an important impact on the achievement of the other MDGs. Education opens up possibilities for employment and improves the understanding of the reasons for adopting improved methods of farming and the capacity to start an enterprise. A skilled workforce will support efforts to attract more inward investment. Educated parents are more likely to send their children to school, to limit the size of their family and to bring up healthy children. Educated women have more options and opportunities and are more likely to promote the welfare of their families as well as being able to resist male domination, including violence.

However, to achieve the MDGs and the EDPRS, Rwanda needs not only to encourage primary school attendance and completion but also to increase access to secondary, technical and vocational and higher education. The move to the nine-year basic education for all will open educational opportunities more widely but access to upper secondary and higher education remain limited, although the Government plans to start expanding access to upper secondary in 2012. A skills gap at all levels has been identified by the Government and the proportion of the population with secondary or higher education remains low. In 2007-8, 13 per cent of men and 11 per cent of women had had at least some secondary education and one per cent of women and 1.6 per cent of men some higher education (Ministry of Health et al 2009, Ps19 & 20). As with primary education the challenge is not only to improve access to educational opportunities, but also to improve the quality.

## Inequality Analysis

There remains a large disparity in primary school enrolment between children from the most and least advantaged homes. However, between 2001 and 2006 the gap narrowed from 19 to 13 percentage points. The gap in the difference in net enrolment by location has also narrowed from nearly seven percentage points to no difference for those living in other urban areas and Kigali and from 10 percentage points to five for those living in rural areas (Figure 12). Educational achievement is related to age, gender, residence and socio-economic status. Younger age groups have on average a higher level of educational attainment than older ones, men than women, those living in urban areas than those living in rural ones, those living in Kigali than those living in the provinces, and the higher wealth quintiles than the lower ones (Ministry of Health et al 2009).

Figure 12: Net Enrolment at Primary School (%) by Wealth Quintiles and Urban and Rural



(Source: NISR 2007a, P52)

### Key Implementation Bottlenecks

- The poor quality of education (including the poor physical infrastructure), lack of text books, poorly motivated teachers, large class sizes and high pupil-teacher ratios, as well as the opportunity costs for parents of sending children to school (IPAR 2009).
- Training teachers to teach in English as the main medium of education.
- In higher education inadequate infrastructure, facilities and equipment for teaching, and a shortage of academic staff due to the non-competitive salaries for both local and expatriate staff.
- Poverty, as poor families are less likely to send and keep their children in school.

### Priorities for Interventions to Accelerate Progress to Achieve MDG 2

- Support to improve the quality of primary school education including training teachers to teach in English and increasing the numbers of 'child friendly schools'.
- Linking the school curriculum to the needs of local communities and working with parents.
- In-service staff development for teachers at all levels in modern teaching methods and educational management, and the provision of text books.
- Ensuring education at all levels produces graduates with the competences demanded by the labour market.
- Support for technical and vocational education and higher education in areas where the skills shortages are causing bottlenecks in achieving other MDGs - for example in agriculture, environment and health.

### Examples of Policies and Projects that Have Contributed to Accelerated Progress

#### Child Friendly Schools

The Child Friendly Schools approach puts the child at the centre of a holistic learning environment.



UNICEF and its partners established child-friendly schools to help young students rediscover what childhood is all about. These schools reach out to both boys and girls, giving them an improved teaching and learning environment, as well as psychosocial support services such as mentoring and counselling. Students are educated about the importance of gender equality and the schools have water and an adequate number of separate toilets for boys and girls. Groups called Tuseme Clubs are a key feature of every child-friendly school, explicitly targeting gender bias and giving boys and girls the skills and space to speak their minds. Tuseme means 'Let's speak out' in Swahili.

The success of the child-friendly programme has inspired the Rwandan Government to expand it to 400 schools, as well as to make child-friendly standards the quality norms for all schools nationwide (Ministry of Education, 2008). Schools must be: Educationally effective; health promoting; sensitive to gender, rights based and inclusive; secure and protective and community engage. Standards are set in four areas: appropriate and secure buildings; healthy, clean and with a learner protective environment; child-friendly, barrier-free environment; and adequate and appropriate educational equipment.

Data Availability – Main Sources	Data Quality	Challenges	Recommendations
Ministry of Education Annual Statistical Returns	Ministry collects data annually. There is a concern about the accuracy of returns from schools etc and difficulty in verifying them.	Ensuring the accuracy of the data because of administrative errors. Lack of recent data on education by income group. Lack of power in some schools.	The Educational Management System should be made operational as rapidly as possible. Training in making statistical returns.

# Goal 3: Promote Gender Equality and Empower Women



Target: Eliminate Gender Disparity in Primary and Secondary Education Preferably by 2005 and at all Levels by 2015

## Indicators

- Ratio of girls to boys in primary schools.
- Ratio of literate women to men aged 15-24 years.
- Proportion of seats held in parliament by women.
- Share of women in waged employment in the non-agricultural sector.

## Status at a glance

- Achieved for ratio of boys to girls in primary school and proportion of women in parliament.
- Off track for share of women in waged non-farm employment.

## Status and Trend

Rwanda has made great strides in promoting gender equality driven by a strong commitment by the Government. Rwanda was second in the world on the 2009 Social Watch Gender Equity Index, with only Sweden having a higher score. Gender equality is enshrined in the constitution and Rwanda was the first country in the world to have more than 50 per cent female members of parliament. There is a Minister for Gender and Family Promotion, a gender monitoring office, a commitment to gender based budgeting, and in recent years there has been a strong emphasis on fighting gender based violence. Women have the same rights to inherit land as men. Girls are as likely to attend primary school as boys and the gender gap in secondary education is narrow and closing. There remains a gender gap in public sector higher education, especially in science and engineering, but women are taking advantage of the opportunities to study in the private higher education institutions. However, the majority of women, especially poor women in rural areas have yet to benefit. Nearly 59 per cent of women are employed as dependent family workers (see figure 6 above), and only 28 per cent of those working in non-farm employment, own account and employee, are women. The Indicator of 50 per cent of those in paid non-agricultural employment being women by 2015 is unlikely to be met.

## Discussion

Rwanda has identified nine critical areas on which to work in promoting gender equality: empowerment; poverty reduction; access to social services; the legal status of women; media representation; gender-based violence; vulnerable women; promotion and protection of girls; and equality in power and responsibility. Although significant achievements have been registered in the promotion of gender equality and the empowerment of women, challenges still exist and there is a gap between the progress in gender equality for educated women employed in professional and managerial jobs in Kigali and for poor women engaged in agricultural work living in rural areas.

The Government sees supporting women to set up small businesses as a priority and has recently introduced the Women's Guarantee Fund which provides a 50 percent guarantee for a bank/microfinance loan that a woman takes out to start up an enterprise. There are a number of projects run by the Government and civil society organisations to support women in starting up household enterprises (Abbott et al 2010). Empowering women and supporting them so they have their own income will support the achievement of the other MDGs.

## Education

Net parity in primary school enrolment had been achieved by 2001 and there are now (based on 2008 data) slightly more girls attending primary school than boys, 51 per cent of pupils are girls (NISR 2009, P64). The repetition and completion rates (based on 2007 data) are very similar for boys and girls, with the repetition rate at just under 18 per cent for both boys and girls but with girls slightly less likely to drop out of school than boys - 13% compared to 15% (NISR 2009 P 64). Whilst girls are more likely to complete primary education than boys, they are less likely to attend secondary school. In 2008, 52 per cent of secondary-school pupils were boys, compared to 48 per cent of girls (NISR 2009, P67) and girls are less likely than boys to continue into upper secondary school. Although it is difficult to get reliable statistical data for gender and higher education, the number of boys gaining places in public sector higher education institutions exceeds that for girls especially in science and engineering subjects, where the latest estimates are that only 30 per cent of science and engineering students are female (Ministry of Finance and Economic Planning 2008). Gender parity has been achieved in private higher education institutions, but students attending these are not entitled to loans from the Student Funding Agency of Rwanda and have to pay up-front fees. Many study for their degrees while working full time. Concern has been expressed about the quality of these institutions, with the Minister of Education recently announcing that private higher education institutions would be required to employ a minimum proportion of full-time academic staff.

The proportion of young women who are literate, (a proxy for effective primary schooling) is virtually identical to that for young men, at just over three quarters of 15-24 year olds (NISR 2007b, P17). Given that girls are now as likely as boys to attend primary school, literacy rates for young men and women are likely to increase at the same rate as more children attend school. However, if we consider the literacy rate amongst all adults, the rate for women is significantly lower than that for men, reflecting historical inequalities in access to education. Just over 22 per cent of women aged 15-49 years have never been to school (13% in urban areas and 24% in rural areas) compared with 15 per cent of men (9% in urban areas and 17% in rural areas) (Ministry of Health et al 2009, Ps 18-19), thus disadvantaging women, who are less equipped to engage in non-agricultural employment or start a family enterprise.

## Employment

The economic activity rate is high for women but nearly 60 percent of them work as dependent family members and are likely to have little control over the product of their labour. Women are much less likely than men to be employed in non-farm employment, with 12 per cent of women employed in remunerated non-agricultural work (wage and independent) compared with 28 per cent of men (Strode et al 2007, P10). There are no long-term trend data available for the share of women employed in non-agricultural employ-



ment, but the available evidence suggests that while men have been moving out of agricultural work women have been moving into paid agricultural employment. Three quarters of the additional paid non-farm jobs created between 2001 and 2006 were taken by men and men were responsible for 60 per cent of small business start-ups (Strode et al, P10).

Poverty is feminised in Rwanda; that is, women are more likely than men to be dependent workers or earning an income that is below the national poverty line. Women earn significantly less than men: the male to female ratio of median earnings for those in waged employment in 2006 was 0.67 (World Bank, last accessed 06.04.2010). Female-headed households are more likely to be in poverty than male-headed ones. In 2006, 60 per cent of female-headed households were in poverty compared to the national average of 57 per cent (NISR 2007a, P47).



Women make up the majority of the workforce and do the majority of the work. In urban areas the workforce is roughly 50 per cent male and 50 per cent female, but in rural areas about 60 per cent of the adult working population is female (Strode et al 2007, P2). Women also work significantly harder than men, being responsible for the bulk of domestic work. On average women work 20 hours a week more than men, mainly because of their responsibility for domestic work in addition to their other work roles (Strode et al 2007, P58). Women in rural areas often have to walk long distances to collect water and wood as well as being responsible for the care of infants and children, cooking, washing and other domestic tasks. Progress in achieving the other MDGs would have a positive impact on women, reducing their burden of poverty and labour.

#### Key Implementation Bottleneck

- Girls continue to drop out of school, especially once they reach their teens, because of a lack of separate toilet facilities and the cost of sanitary pads. They also dropout of school because they are required to help their mothers with domestic work, childcare and collecting wood and water
- Lack of female teachers especially in upper secondary schools and higher education institutions to act as role models for girls. This is even more problematic in science and engineering.
- Women have difficulty in accessing bank loans, especially if living in rural areas, and often lack the confidence to start their own business.
- Lack of trust is often a barrier to joining a credit union and there is also a fear of the unknown.
- Cultural attitudes to women in general and gender-based violence.

#### Priorities for Support to Accelerate Progress to Achieve MDG 3

- The Women Guarantee Fund and specific programmes to support women starting HEs.
- Steps should also be taken to ensure that women benefit equally with men from the specific programmes targeted at the extremely poor. Baseline studies should be carried out and the monitoring and implementation of the programmes should explicitly monitor gender.
- Programmes to train teachers and lectures so that the curriculum in schools, vocational and technical and higher education is engendered, and to raise awareness of the importance of gender equality amongst teachers, parents, children and students.
- Improved toilet facilities in schools and help for girls from poor homes with the cost of sanitary pads.
- Support for programmes to tackle gender-based violence and negative cultural attitudes to women.
- Gender impact analysis, gender budgeting etc.

#### Examples of Policies and Projects that have contributed to Accelerated Progress

Major achievements in promoting gender equality have been driven by strong political will and commitment, the appointment of a Minister for Gender and Family Promotion, a strong grass-roots women's movement that played a key role in ensuring that gender equity was included in the 2003 Constitution and the establishment of a Gender Monitoring Office. A key factor in the increased proportion of girls enrolling in primary education was making it free (IPAR 2009).

#### Girls into Science and Engineering



The programme aimed to increase access to degrees in science, mathematics and engineering, recognising that girls often underperform in these subjects at secondary school level because of a lack of role models, low expectations by teachers and a perception that girls are 'no good' at these "boys' subjects". The Girls Empowerment Programme was run as a pilot at the Kigali Institute of Science and Technology in 2006. The programme enabled about 100 young women who narrowly failed to get the grades to be awarded a place to take a science, mathematics or engineering degree in a public higher education to make up their deficit and gain a place at KIST. Evaluation of the scheme found that the girls who graduated from it and went on to study at KIST did extremely well. The Government is now taking the programme forward.

Data Availability – Main Sources	Data Quality	Challenges	Recommendations
Ministry of Education Annual Statistical Returns Integrated Household Surveys 2001, 2006	Not all data are available disaggregated by gender.	Ensuring that all data are provided disaggregated by gender in line with the Gender-sensitive Indicators developed by the Gender Monitoring Office and NISR.	Survey data should be analysed by gender and all routine administrative Data should be categorised by gender.

# Goal 4: Reduce Child Mortality



Target: Reduce by Two Thirds the Mortality Rate among Children Under Five Years  
Indicators

- Under-five mortality rate.
- Infant mortality rate.
- Proportion of 1-year-old children vaccinated against measles.

Status at a glance

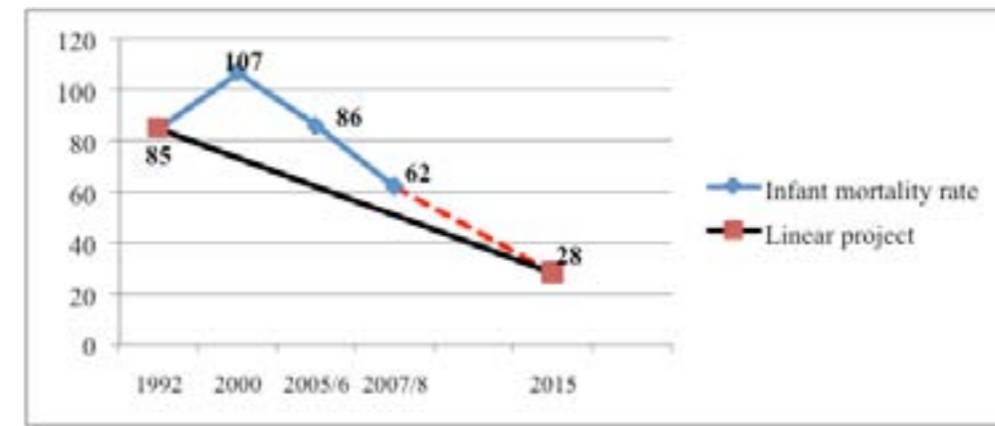
- Potential to achieve with support to accelerate progress.

## Status and Trend

Infant mortality stood at 62 per 1000 live births (28 per 1000 between birth and 1 month, 34 per 1000 between 1 month and 12 months) in 2008 (Figure 13). Of every 1000 babies born in Rwanda in 2008, 62 died before their first birthday, yet given adequate care and a good environment most of them could have survived. The infant mortality rate (IMR) stood at 85 prior to the Genocide against The Tutsi, increased dramatically during and in the aftermath of the tragic events of 1994 and reached a peak of 107 in 2000. Since then it has fallen dramatically, to 85 by 2005 and 62 in 2008. To hit the MDG Target it will have to fall to 28, which, as Figure 8 shows, would mean accelerating the rate of decline. The most recent data from the Health Management Information System (HMIS) suggests that the rate may already have fallen to 32 per 1,000 live births. If these data are verified, they support the view that the MDG Target of an IMR of 28 deaths per 1000 live births can be achieved.

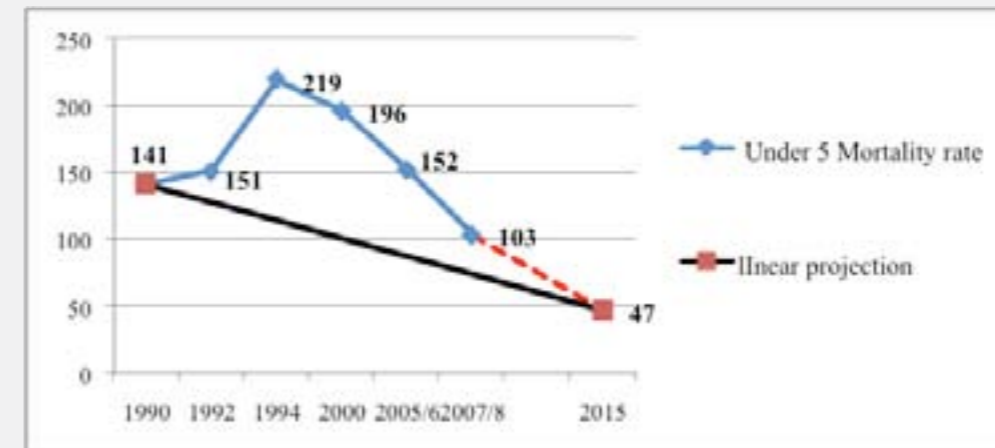
The under-five mortality rate is also high, at 103 per 1000 live births (Figure 14). In other words, of every 1000 babies born alive in 2008, 103 will not survive to their fifth birthday. Of every 1000 children who survive to one year, 43 will not survive to their fifth birthday. Like the infant mortality rate, the under-five mortality rate has fallen dramatically since 2000. To achieve the 2015 MDG Target, as Figure 13 shows, the rate of decline witnessed since 2000 would have to be maintained. It therefore looks as if it may be on track to be achieved, although, as with the achieving of the MDG for the IMR, it will require continued coordinated effort.

Figure 13: Infant Mortality Rate per 1000 Live Births



(Source: NISR 2007a P24; NISR 2009, P7)

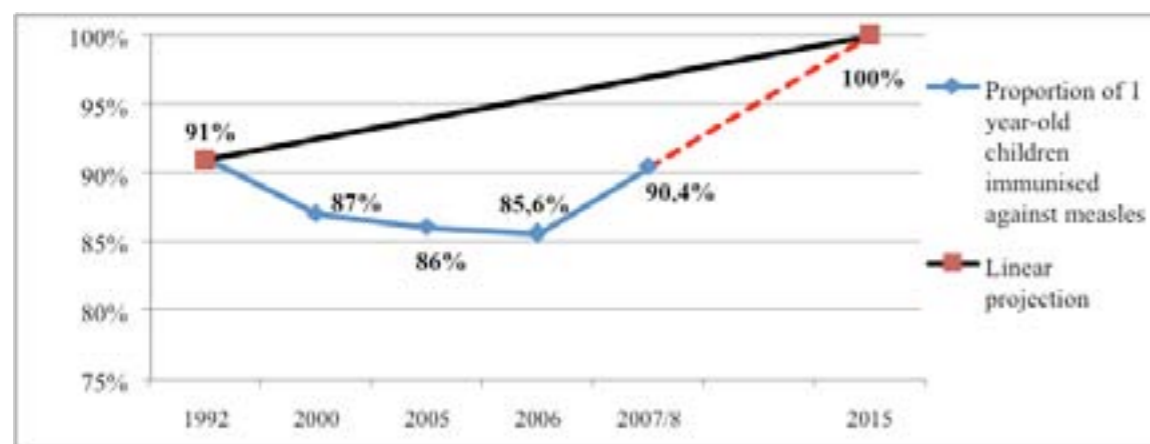
Figure 14: Under 5 Years Mortality Rate per 1000 Live Births



(Source: NISR 2007a, P23; NISR 2009, P8)

The Target for the proportion of children immunised against measles has almost been achieved and the rate is likely to continue to go up (Figure 15). By 2008 the proportion of children aged 12–23 months vaccinated against measles stood at 91 per cent (NISR 2009, P8). It is to be expected that the rate will continue to increase, but the 100 per cent MDG Indicator is unlikely to be met because there are still families and communities who refuse the measles vaccination on religious grounds. However, a 90 per cent vaccination rate for measles is adequate to break the cycle of transmission .

Figure 15: Proportion of One-Year-Old Children Immunised Against Measles



(Source: NISR et al 2006, P108; NISR 2009, P7)

### Discussion

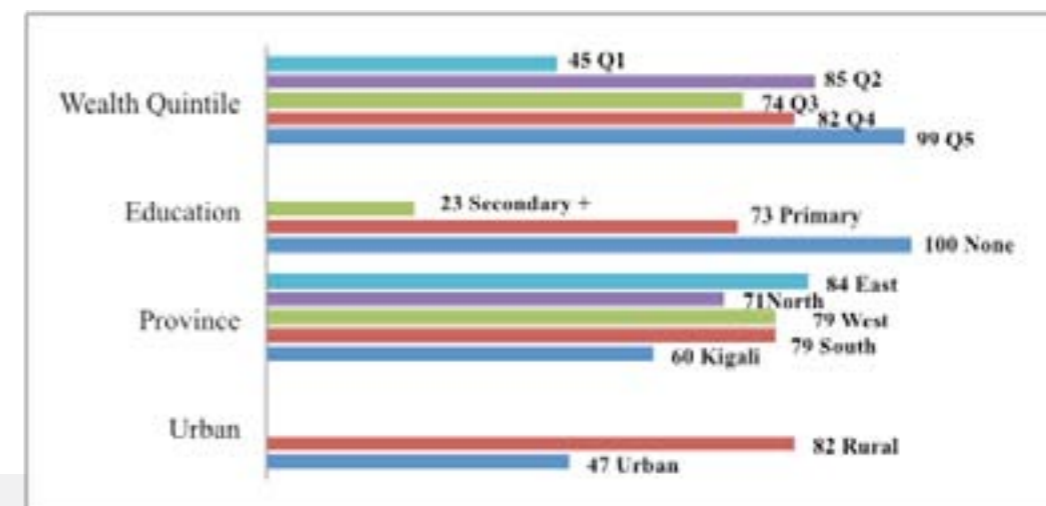
High levels of infant and child mortality are closely associated with poverty, poor nutrition, the health status of the family and family size. Contaminated water and poor sanitary facilities also contribute to high infant and child mortality rates. Reducing child and infant mortality rates are high priorities for Rwanda and there is a strong commitment to achieving this MDG.

Infant and child mortality is preventable, with diarrhoea, malaria and pneumonia being the main causes in Rwanda, with the underlying cause being poverty. The provision of clean water, sanitary conditions, mosquito nets and childhood immunisation are the main ways to reduce the high death rate amongst babies and young children. The problem is being tackled at community level and community ownership is seen as fundamental. The Ministry of Health has increased preventive measures at the community and village levels, including the provision of mosquito nets, vaccination, medical follow-ups, treatment and family planning sensitization.

### Inequality Analysis

While there has been a reduction in the under-five and infant mortality rates, they remain high and there are inequalities. The infant and child mortality rates by wealth quintile follow the expected pattern except that the middle quintile shows a lower figure than the fourth quintile (Figures 16 and 17). A child born into a bottom-quintile family has a one in five chance of not reaching five years, twice that of a child born into the top quintile. The IMR for a child born into a bottom-quintile family was 99 per 1,000 live births compared with 45 per 1,000 live births for a child born into a top-quintile family. The comparable figures for under-five mortality are a 161 and 84.

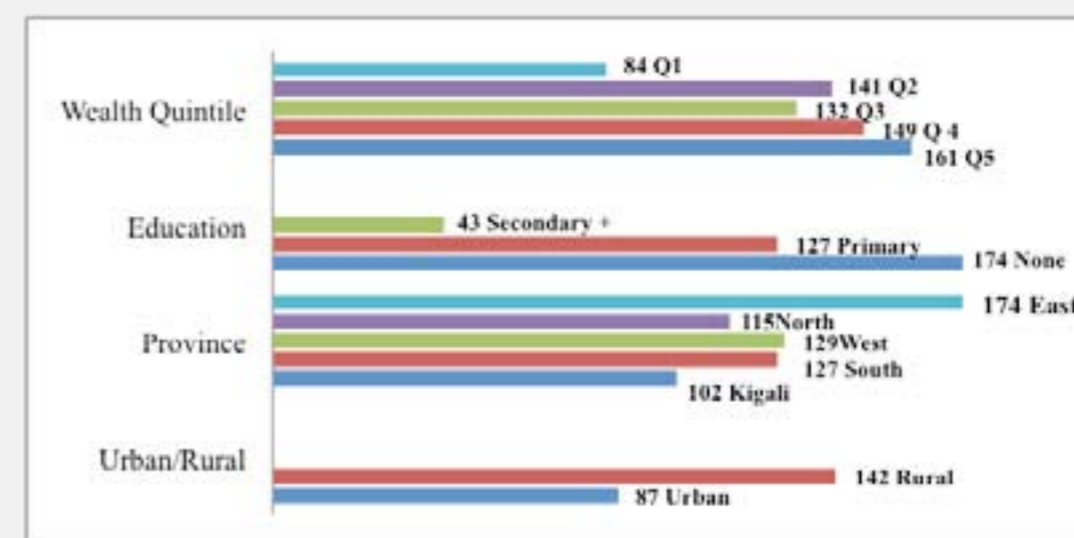
Figure 16: Infant Mortality Rate per 1000 Live Births by Residence, Province, Education and Wealth Quintile for a 10 Year Period



(Ministry of Health et al 2009, P98)

The infant and child mortality rates are significantly lower in Kigali than in rural areas; the under-five mortality rate was 87 per 1000 in Kigali and 142 in rural areas, and the IMR 47 in Kigali and 82 in rural areas. The Eastern Province had the highest rates at 174 and 84 and Kigali the lowest at 102 and 60. Mothers' level of education is inversely related to children's risk of dying. There are substantial differences between the mortality rates for the children of women who have secondary or higher education and the rates for children whose mothers have primary or no education. The IMR for a mother with secondary or higher education was 23 compare to a 100 for uneducated mothers. The comparable rates for under-five mortality were 43 and 174. This suggests that the education level of mothers is even more important than the wealth of the family in determining infant and child mortality rates. The children of educated mothers are significantly more likely to survive than those of mothers with little or no education.

Figure 17: Under-Five Mortality Rate per 1000 Live Births by Residence, Province, Education and Wealth Quintile for a 10-Year Period



(Source: Ministry of Health et al 2009, P98)

The major cause of mortality amongst children is malaria, followed by anaemia, acute respiratory infection and diarrhoea – all of which are preventable through comprehensive and well coordinated interventions



including the distribution of mosquito nets, improved access to water and sanitation, improved cook stoves and simple health interventions such as rehydration salts (Ministry of Health et al 2009).

Vaccination coverage is improving with an increase in the proportion of children having all vaccinations from 76 per cent in 2000 to 80 per cent in 2007-8. Just over 90 per cent of children are vaccinated against measles, with 83 per cent being vaccinated by the age of 12 months. There is little variation in measles vaccination rate by urban-rural location, by province or by wealth quintile. However, educated mothers are more likely to have their children vaccinated than mothers who have never been to school (95.3% compared to 86.1%, and 91.4 % for those who have attended only primary school) (Ministry of Health et al 2009, Ps66-7).

#### Key Implementation Bottlenecks

- Child health is a major programme and important in EDPRS and Vision 2020 but there is no specific budget for it in the Ministry of Health and no budget line for it. This makes it very vulnerable. (Interview data, Ministry of Health, April 2010).
- A lack of resources and facilities in health centres, and staff not always able to provide comprehensive advice (NISR et al 2008).
- Inadequate provision of emergency respiratory support for newborns.
- Much pediatric equipment in hospitals is obsolete as it predates 1994, and other equipment cannot be repaired due to lack of technical support (Ministry of Health, 2008).

#### Priorities for Interventions to Accelerate Progress to Achieve MDG 4

- Provide a specific budget for child health.
- In-service training for staff and strong promotion of medical/clinical standards.
- Increase the numbers of qualified community health care workers.
- Roll out of the Social Protection Programme (VUP).
- Extend community health insurance to the remaining very poor households are not covered.
- Equipment.

#### Examples of Policies and Projects that have contributed to Accelerated Progress

##### Community Ownership of Responsibility for Health

Recognising that improving health requires a partnership between the Government and local communities, the Ministry of Health has put in place mechanisms that directly involve and empower local communities in health promotion. Family-orientated community-based services consist of what families and communities can practice by themselves when provided with information and education by health workers. They integrate the management of children and maternal health. The service mainly provides preventive and promotional measures as well as some management of neonatal and childhood illnesses. They are encouraged to resolve problems at the community level. Communities are responsible for their wellbeing and problems, and success is accounted for, justified and owned by the community. Communities are supported by professional community health workers as well as health commodities and supplies. Community health workers are elected by the community. There is one health worker for each community responsible for ante- and post-natal care. SMS ('phone) is also used to create awareness in local communities about health services and programmes.

## Goal 5: Improve Maternal Health



Target: Reduce by Two Thirds the Maternal Mortality Rate

#### Indicators:

- Maternal mortality rate.
- Proportion of birth attended by a skilled health professional.
- Contraception prevalence rate (condom utilisation 15-24 year olds).
- Adolescent birth rate.
- Antenatal care coverage.
- Unmet need for family planning.

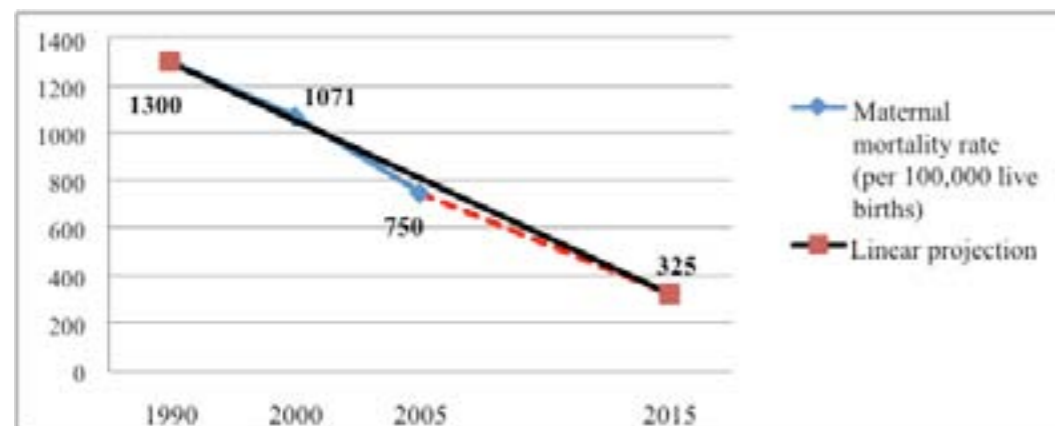
#### Status at a glance

- Off track

#### Status and Trend

There has been a significant decrease in the maternal mortality ratio, with Rwanda making good progress towards achieving the MDG Target of reducing the rate from 1,300 per 1000,000 live births in 1990 to 325 in 2015. By 2005, the last year for which validated data are available, the MMR was 750 (Figure 18). Unconfirmed figures from the Ministry of Health suggest that the MMR has declined significantly since 2005. The main reason for the improvement is an increasing number of women giving birth in a health-care facility attended by a qualified health care professional. To achieve the Target it would be necessary to increase the number of women giving birth in a health-care facility from 52 percent to nearer the WHO Target of 90 per cent (WHO 2007) as well as encouraging more pregnant women to attend for an early antenatal visit and make the four recommended visits (Jararaman et al 2008). It is estimated that around 52 per cent of maternal deaths can be averted by providing extended obstetric care (Wagstaff and Claeson 2004).

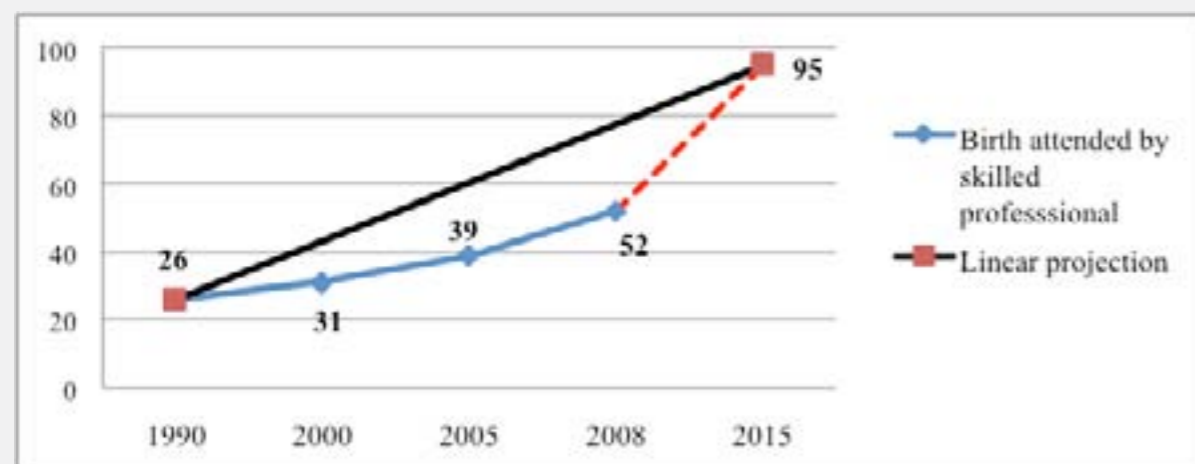
Figure 18: Maternal Mortality Rate



(Source: WHO 1996, P13 ; NIRS 2007b, P30; NISR et al 2006, P173)

Trends in antenatal, delivery and postnatal care are seen as good indicators of likely trends in maternal mortality in the absence of reliable maternal mortality data (Jararaman et al 2008). There has been an increase in the proportion of births attended by skilled health personnel, with 52 per cent of mothers now being cared for by a skilled health-care worker during delivery (Figure 19). However, accelerated progress will need to be made if the WHO Target of 90 per cent of births attended by skilled health personal is to be met by 2015 (WHO 2007).

Figure 19: Per Cent of Assisted Deliveries



(Source:NISR 2007a,P31; NISR 2009, P11)

Ninety-six per cent of women receive anti-natal care and this varies little by economic stratum (NISR 2009 et al, P57) (Figure 20 below), although only a small minority (less than 25 per cent) attend for four antenatal visits as recommended by the World Health Organisation.

Knowledge of modern contraception methods amongst women of childbearing age and men in the same age cohort is high but uptake is low. However, an increasing number of women of reproductive age are using modern methods of contraception, with 27 per cent of women of childbearing age now using such a method (NISR 2009, P32).

## Discussion

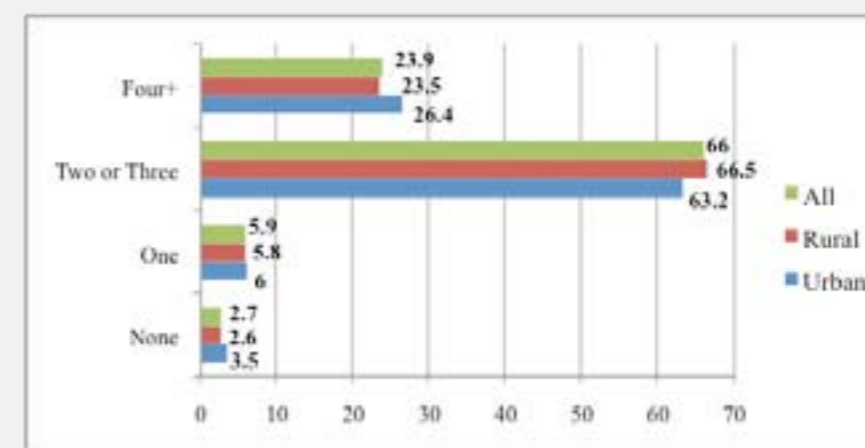
Women die needlessly in childbirth; maternal mortality is largely preventable provided mothers receive appropriate antenatal care and are attended by a skilled health-care worker during labour. Many who survive are left permanently damaged and specially at risk in future pregnancies. Given the need for hygienic conditions, it is preferable, especially for women from poorer homes, to give birth in a health facility. Limiting family size and spacing births also reduce the risk, so access to family planning is important. Young women are at greater risk, so reducing the teenage pregnancy rate can help with lowering the maternal mortality rate. As with infant and child health, maternal mortality is associated with poverty and reducing poverty will improve the health of mothers and reduce mortality. Improved maternal health will also improve the health of children.

Protecting expectant mothers from infections and diseases, including malaria, is very important. Sixty-five per cent of pregnant women sleep under a mosquito net and 55 per cent were protected against malaria during their pregnancy by taking antimalarial drugs (Ministry of Health et al 2009, P86). Contraception is also important as young and older women are at special risk as are those who do not adequately space their births and/or have large families.

## Inequality Analysis

Ninety six per cent of pregnant women consult a health-care professional (generally a qualified nurse or midwife), but only 24 per cent make four antenatal visits as recommended by the World Health Organisation (Figure 19). Thirty-three per cent of pregnant women delay making their first visit until the sixth or seventh month of pregnancy, while the recommendation is that the first visit should be made before the fourth month. There is little differences between urban and rural areas, by province, wealth quintile or age of mother

Figure 20: Number of Antenatal Care Visits



(Source: Ministry of Health et al 2009, P57)

Maternal mortality differs by residence (urban vs. rural), province, mother's education and wealth quintile. Those in the wealthiest quintile, who have had at least secondary school education and who live in urban areas are at the least risk of dying in childbirth. These are also the women with the best access to health care facilities and who are at lower risk because they generally have fewer children and are well-nourished. Teenage fertility is an important demographic factor, as children born to young mothers are at greater risk of illness and death. Also, teenage mothers are at greater risk of complications during pregnancy and are less likely to attend for antenatal care, exposing themselves to a greater risk of complications during delivery and dying for reasons related to childbirth. Early childbearing also seriously affects a woman's ability to pursue an education, find employment and become independent. In Rwanda teenagers make up

19 per cent of women of childbearing age but less than four per cent of the total fertility for all women (Ministry of Health et al 2009, P100).



The likelihood of a young woman (15–19 years) having begun childbearing increases with age, having no or only primary education, living in Kigali and not being in the highest wealth quintile. (Ministry of Health et al 2009, P34). There is little difference by urban and rural areas but the proportion of young women who had begun child bearing was lowest in the wealthiest quintile (4.1%). Young women with secondary or higher education were the least likely to have begun child bearing (2.9%) but there was little difference between those with no education or primary education (5.1%, 6.3%). Whilst no 15-year-old young women had begun childbearing, 14 per cent of 19-year-olds had done so and nearly nine per cent of 18-year-olds. Young women are much more likely to have begun childbearing if they are resident in Kigali (9.1%) than in the provinces (North 6%, South 5.6%, West 5.2%, East 4.5%).

Those who have received no antenatal care are the group with the highest likelihood of delivering at home (88 per cent). Women living in Kigali are more likely to be delivered by a health-care professional (66%) than those living in the provinces, where the figure is about 50 per cent, varying from 48 per cent in the North to 53 per cent in the East (NISR 2009, P13). Women living in rural areas are more likely to deliver at home than those residing in urban areas, 52 per cent compared to 32 per cent. Women with no education and those in the three lowest wealth quintiles are also more likely to deliver at home. About 40 per cent of women deliver with the assistance of a nurse or midwife and this rises to 59 per cent of the most educated women and 52 per cent of those in the richest quintile (Ministry of Health et al 2009, P56). An additional six per cent deliver with the assistance of a doctor; the highest proportion of these live in Kigali, have secondary or higher education and are from the richest wealth quintile (NISR 2009, P13).

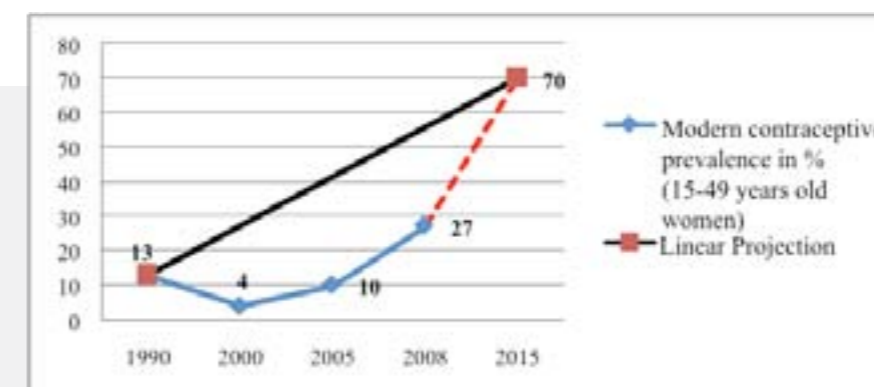
### Family Planning

Following the 1994 Genocide Against the Tutsi the Government became aware of the link between population dynamics and socioeconomic development and recognised the necessity of taking demographic variables into account in policies and plans for social and economic development. In 2003 the Government adopted a population policy. The main goal of this policy was to improve the quality of life of the majority of the population by slowing population growth. The rate of population growth remains high, however, and is a barrier to social and economic development. There is low take-up of contraception, although knowledge of modern contraception methods is high and there is a desire to limit family size.

The total fertility rate remains high and is above women's desired fertility level of 4.3 children. The gap

between actual and desired fertility may be indicative of an unmet need for family planning (Ministry of Finance and Economic Planning 2007). There is no information on the number of unplanned pregnancies in the general population, but two health providers in each of the 406 health centres have been trained in contraception methods (Ministry of Health 2008, P23). Use of contraception depends on having some prior knowledge. However, knowledge of family planning is nearly universal in Rwanda, with 97 per cent of women having knowledge of at least one method of contraception and 99 per cent of married women. Women are more familiar with modern methods than traditional ones, whether married or not. Similarly, 98 per cent of men have knowledge of at least one method of contraception and the same proportion have knowledge of at least one modern method (Ministry of Health et al 2009, P37–38). Knowledge of contraception methods is high for all sub-groups (age, wealth quintile, education level and residence).

Figure 21: Married Women's Uptake of Modern Contraceptives



(Source: Ministry of Health, et al, 2009, P41)

The number of married women using contraception increased between 2000 and 2007, from 13 per cent using any type to 36 per cent, and from four per cent using modern forms of contraception to 27 per cent (Figure 21). However, this remains a long way from the Target of 70 per cent by 2015. Use of modern contraceptive methods increases with women's level of education, varying from 19 per cent among women with no education to 29 per cent among women with primary education, and to 43 per cent among women with secondary education or above. Contraceptive use also increases as household income increases, and age is also a factor: Just under two per cent of 15-to-19-year-olds use a modern method of contraception, but 30 per cent of 30–34 year-olds do so. For married women the rates are higher, with 23.7 per cent of married 15–19 year olds and 34 per cent of 30–34 year olds using modern contraception. Contraception use by married women varies by urban and rural residence. Thirty-six per cent of women living in urban areas compared to 26 per cent of those living in rural areas use a modern method of contraception. Contraceptive prevalence also increases with household wealth, from 22 per cent in the lowest quintile to 27 per cent in the middle and fourth quintiles and 39 per cent in the highest (wealthiest) quintile (Ministry of Health et al 2009, P38).

### Key Implementation Bottlenecks

- Only 10 per cent of health centres offer basic obstetric care and there is a weak referral system for emergency obstetric care. Transport is a problem in rural areas and there is a serious lack of qualified midwives (NISR et al 2008).
- Inadequate financing for health care (Ministry of Finance and Economic Planning 2007).
- Forty-eight per cent of women still give birth at home without the assistance of a qualified health-care professional, often in unhygienic conditions.
- There is a severe shortage of qualified midwives. There is little incentive for professionals to work in rural areas.
- Twenty two per cent of health facilities have no access to electricity and therefore no access to IT or



communications (NISR et al 2008).



- Only one in five facilities offering maternal health services have all the elements necessary to support quality sterilization of delivery equipment, and that only 12 per cent had all the items for managing common complications of delivery. .

#### Priorities for Interventions to Accelerate Progress to Achieve MDG 5

- Expanding the maternity care service to ensure that no women have to give birth at home and enhancing the provision of services for women who have complications of labour.
- Providing more support for antenatal care and ensuring all pregnant women make four antenatal care visits.
- Providing birthing kits for home delivery, especially in rural areas.
- Ensuring that there is at least one trained female community health worker in every community.
- Improving the provision of contraception, supporting the provision of family planning outreach programmes and arranging for women not using modern forms of contraception to be visited by family planning outreach workers.
- Support for midwifery training and increasing the numbers of qualified midwives.

#### Examples of Policies and Projects that have contributed to Accelerated Progress Improving Maternal Care

The Government of Rwanda has put in place a package of measures to improve maternal care with the aim of reducing maternal mortality as rapidly as possible. These measures include:

- making antenatal care available to all women;
- encouraging all pregnant women to attend four antenatal care visits;
- having community health-care workers who can provide support for pregnant women and attend the births of those who do not go to a health-care centre or hospital for delivery;
- health advisers advising pregnant women across the country to visit and deliver at health centres.
- distributing the New Birth Kit to all health facilities
- a referral system for pregnant women thought to be at risk and emergency maternal and neonatal care

- the Ministry of Health carries out maternal deaths audits and evaluates the causes of the deaths as well as identifying future preventive measures. When the death takes place of a woman who has given birth at home the local community are involved in the audit
- district hospitals and health centre staff are trained in the promotion of and how to insert long-term contraception method.

#### Examples of Policies and Projects that have contributed to Accelerated Progress Improving Maternal Care

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- district hospitals and health centre staff are trained in the promotion of and how to insert long-term contraception method.

# Goal 6: Combat HIV/AIDS, Malaria and Other Diseases



Target: Have halted by 2015 and begun to reverse the spread of HIV/AIDS and provide universal access to treatment for HIV/AIDS for all those who need it

- Indicators
- HIV prevalence among population aged 15–24 years.
  - Condom use at last high-risk sex.
  - Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS.
  - Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14 years.
  - Proportion of population with advanced HIV infection with access to antiretroviral drugs.

Status at a glance

- On track.

## Status and Trend

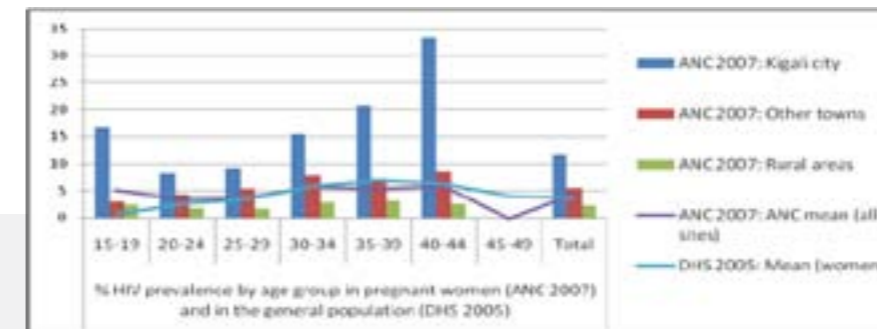
Although the HIV prevalence rate in Rwanda is lower than in many other sub-Saharan countries, it is still the main killer of those over five years of age and comes after only malaria as the cause of death for children under five years. The Government remains strongly committed to fighting the disease (Ministry of Health 2009b; National AIDS Control Commission 2010).

There are an estimated 1.35 million orphans and vulnerable children in Rwanda between the ages of nought and 17 years. It is estimated that AIDs accounts for nearly a fifth of these (National AIDS Control Commission 2010, P 15). The attendance rate of orphans at primary school was lower than that for non-orphans in 2006. Just over 80 per cent of orphans attended school compared to 86 per cent of children with one or both parents living (NISR 2007a, P53).

Progress is being made on all the Targets for this Goal relating to HIV. The last population-based survey on HIV prevalence was the Rwanda Demographic and Health Survey in 2005. The survey found the prevalence rate for HIV to be three per cent (confidence interval: 2.6–3.5) (quoted Ministry of Health 2009b: NISR 2009, P24) with an estimated one per cent of young people aged 15–24 becoming infected with the virus each year (Ministry of Health 2009b). The three per cent prevalence rate is significantly lower than that reported in 2000 which was 13.9 per cent. However, the higher rates reported in the early years of the 21st Century were based on high risk populations and resulted in an overestimation of the true prevalence rate. Undoubtedly, the prevalence and incidence rates are declining due to the strong and relentless campaigns to raise awareness but it is not possible to provide a meaningful trend analysis.

There is some evidence from the monitoring of pregnant women that the HIV rate may be stabilising (National AIDS Control Commission 2010). The most recent sentinel surveillance of pregnant women attending antenatal clinics (2007) found that 4.3 per cent (confidence interval 3.8 – 4.5) of pregnant women were HIV positive (Figure 22). HIV prevalence surveillance has been carried out in antenatal clinics since 1998. The data suggest that there was a decrease between 2003 and 2005 but that the rate remained stable between 2005 and 2007 (National AIDS Control Commission 2010).

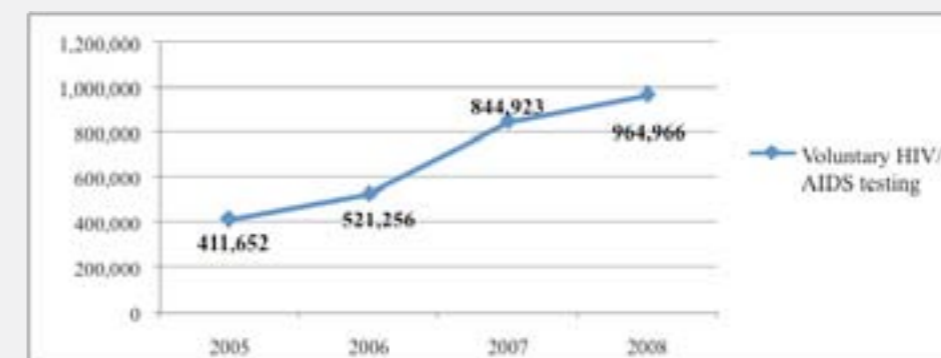
Figure 22: HIV Prevalence in Pregnant Women Attending ANC in 2007 and Women in the General Population 2005, by Age Group



(Source: from Ministry of Health 2009b P23; National Control Commission on AIDs 2010 P16: based on data from TRAC plus 2008, NISR 2005)

There has been a dramatic increase in the use of the HIV testing service and in the number of health care centres which can undertake Voluntary Counselling and Testing (VCT) (Figures 23 and 24).

Figure 23: Numbers Attending for Voluntary HIV/AIDS Testing, 2005 – 2008



(Source: NISR 2009, P24)

Antiretroviral treatment for all those assessed as needing it is available free but not all those eligible access treatment and this is especially the case for children. In 2008 antiretroviral treatment coverage was estimated to be 77 per cent for adults for eligible adults and 49 per cent for children (National AIDS Control Commission 2010, P11). The 2007 survey of the health sector (NISR et al 2008) found that only one third of health facilities offered antiretroviral treatment and of these only about one third had had uninterrupted supplies of AVRs in the previous six months. Only seven of the 334 facilities with an HIV testing system offered a youth-friendly service for HIV testing. There is insufficient information and clinical follow-up for those with HIV/AIDS and a number of those on ART are lost. HIV-positive children are diagnosed at a late stage, possibly increasing morbidity and mortality (Ministry of Health, 2009b). Strategies to support people living with HIV include income-generating activities, food security, access to health care through community-based health insurance and access to primary, secondary and vocational education (Ministry of Health 2009a, P27).

## Inequality Analysis

Older age groups are more likely to be infected than younger ones. There is a higher prevalence rate of HIV amongst women than men and in the urban population than the rural one, partly due to the number of women who were raped during the Genocide against the Tutsi, but also cultural factors including attitudes to male-on-male sex (Figure 17). Those under 25 years are less likely to be HIV positive than those over 25 years but young women are noticeably more likely to be infected than young men. Young women in the 20–24 age groups seem especially vulnerable and may be infected through having sex with older men (National AIDS Control Committee 2010, P16). There is also evidence from the 2007 surveillance of women attending antenatal clinics that the HIV rate is particularly high for pregnant young women with 5.1 per cent of those aged 15–19 years being HIV positive compared to a prevalence rate for those aged 14–24 years of 3.7 per cent (National AIDS Control Commission 2010, P16).

The highest rates are in Kigali City, with over twice the average national rate (NISR 2009, P22). The Western Province has the highest prevalence outside of Kigali with even the rural sites showing a higher prevalence than the national average in the 2007 survey testing pregnant women (Ministry of Health 2009b, P27). The other three provinces have lower prevalence. An analysis of the data from the survey of pregnant women in 2007 (Ministry of Health 2009b) shows no obvious pattern of increase or decrease in HIV prevalence by geographic location. However, there is some indication of a recent increase in the Southern Province which may be due to the presence of the National University in the Province and/or to the existence of transport routes, seasonal workers and commercial centres (Ministry of Health 2009b, P27).

Amongst young people aged less than 25 years, comprehensive correct knowledge of HIV/AIDS increases with age for both young men and women. Those living in urban areas are more likely to be well informed than those living in rural areas and the difference is much larger for young women. The gap is six percentage points for young men and 15.2 for young women. In urban areas it is young women who are the better informed and young men in rural areas. Young women living in Kigali and young men in Southern Province were the best informed and those living in the Western Province the least likely to have a comprehensive knowledge (NISR 2009 P25). Condom use varies by age, residence, education and age. Men with at least secondary education, living in urban areas and aged 25–29 years are the most likely to use condoms. Utilization rates vary from 14.1 per cent of women living in rural areas to 62 per cent of men living in urban areas (NISR 2009, P21).

## Key Implementation Bottlenecks

- Comprehensive knowledge of HIV/AIDS is low, as is condom use. Although there is some evidence from the most recently available Annual Behavioural Survey that condom use has increased dramatically (National AIDS Control Commission 2010) it has not yet become 'normalised' and remains associated with promiscuity.
- There is a lack of the necessary capacity to provide an HIV prevention services as a comprehensive package: to ensure full geographic coverage; and to target at-risk populations including young people, sex workers, prisoners, truck drivers, intravenous drug users and men who have sex with men (National AIDS Control Commission 2010).
- There are too few youth-friendly health centres and the use of condoms by 15–24 year olds remains low.
- Health workers need training on gender-based violence issues and treatment for survivors of gender violence.
- Difficulty in recruiting qualified staff at all levels and a shortage of staff resulting in high pressure on all staff.
- Cultural barriers making it difficult to talk about male-on-male sex.
- Parents with children eligible for antiretroviral treatment not bringing them for treatment.
- The age of majority being 21 with health service staff not being able to provide services to young people under 21 without parental consent.

## Priorities for Interventions to Accelerate Progress to Achieve MDG 6 A + B

- Further extension of services for HIV prevention, testing and treatment by providing a comprehensive package, involving local communities and targeting the groups most at risk, including men who have sex with men, prisoners, truck drivers, sex workers, injecting drug users, refugees and HIV sero-discordant couples.
- Providing more youth-friendly centres.
- Support for programmes to overcome cultural and religious barriers to issues relating to same-sex relationships and out-of-marriage sexual relationships.
- Extending the HIV programme coverage in the public sector and involving the private sector in HIV prevention, care and treatment programmes.
- Ensuring that the needs of the most vulnerable children with HIV/AIDS are met by undertaking work to ensure that their needs are understood as well as the extent of their need for services.
- Integrating further HIV/AIDS care into the routine health services and providing training to health professionals in sexual and gender based violence.
- Addressing the causes of stigma and denial which have played a central role in the spread of HIV/AIDS.

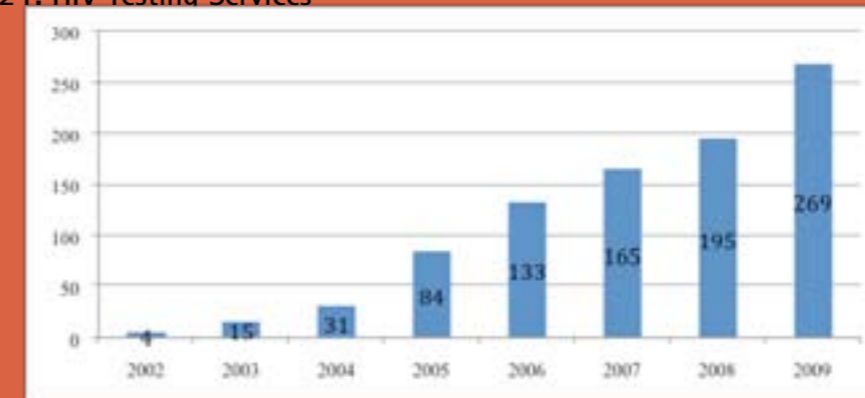
## Examples of Policies and Projects that Have Contributed to Accelerated Progress

### Fighting HIV/AIDS

There is political commitment, a clear vision and a determination to fight HIV/AIDS under three main outcomes: coordination, planning, M & E and partnership; prevention; and mitigation of AIDS. The Government has put in place a comprehensive package of programmes to fight HIV/AIDS including:

- increasing the number of health facilities offering ARV treatment from 23 per cent of health facilities in 2005 to 43 per cent in 2008 (Ministry of Health 2009b, P37). Rwanda has opted for not having a stand-alone HIV health facility but rather offering treatment in generic health facilities;
- increasing the number of health facilities that can offer voluntary testing and counselling services from four in 2002 to 269 in 2009 (Figure 19);

Figure 24: HIV Testing Services



(Source: National AIDS Control Commission 2010, P36)

- a push for support from civil society and involving religious leaders in sensitization campaigns and other preventative work;
- clear protocols for treatment and a clear way of tracking progress through performance contracts;
- a strong emphasis on education and prevention, including targeting the most at risk groups;
- campaigning to remove the stigma and discrimination experienced by those living with AIDS;
- establishing youth-friendly centres to provide advice on prevention and testing for HIV;



- taking measures to prevent mother-to-child contamination.

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

**Indicators:**

- Incidence and death rates associated with malaria.
- Mortality Rate Adults and Children over 5 years (per 100, 00 population).
- Mortality Rate Children 0-5 years (per 100, 00 population).
- Malaria cases per 100,000 populations.
- Proportion of children under 5 sleeping under insecticide-treated bed nets.
- Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs.
- Incidence, prevalence and death rates associated with tuberculosis.
- TB related mortality per 100,000 population.
- Proportion of tuberculosis cases detected and cured under directly observed treatment short course.

**Status at a glance**

- On track

**Status and Trend**

Malaria continues to be a major cause of morbidity and mortality in Rwanda, although remarkable progress is being made in reducing the burden of the disease, with the emphasis being on prevention (Ministry of Health 2009a). It is the main cause of death in children under five years of age and the second cause after HIV/AIDS for adults (Ministry of Health, 2009a).

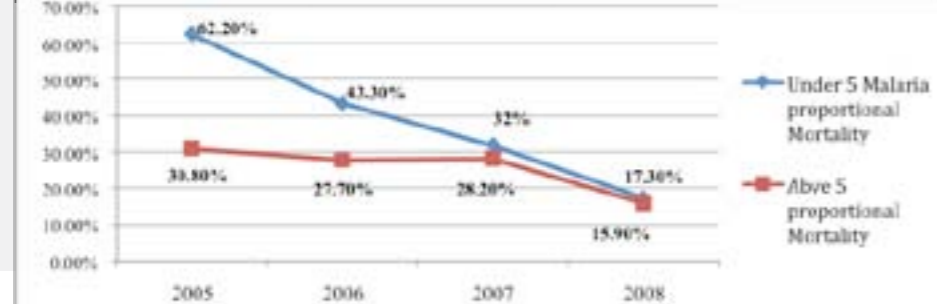
In 2000 the mortality rate from malaria was 200 per 100,000 population. More recent data on the mortality rate are not available. However, the rapid decline in mortality from malaria can be seen in the decline in the percentage of deaths in health facilities due to malaria in recent years (Figure 25). In 2005, 62 per cent of such deaths of children under five years were caused by malaria, but by 2008 this had fallen to 17 per cent. For those aged five years and over the decline was from 31 per cent in 2005 to 16 per cent in 2008

Figure 25: Malaria Proportional Mortality Under 5 Years and 5 Years and Over, 2005 – 2008

(Source: NISR 2009, P32)

There has been a decline in malaria cases, while at the same time there has been an increase in health service utilisation. The proportion of under-five morbidity due to malaria fell from 39.6 per cent in 2005 to 22.7 per cent in 2008 and for those five years and over from 33.7 per cent to 8.1 per cent in the same period (Figure 26).

Figure 26: Malaria Proportional Morbidity Under 5 Years and 5 Years and Over 2005 –2008



(Source:NISR 2009, P36)

The TB notification rate in 2007 was 89 per 100,000 population for all cases and 45 for new smear-positive cases of whom about 35 per cent were HIV positive (Ministry of Health, 2008 P28). This is a reversal of the trend from 2003 to 2006 when there was an increase from 73.2 per 100,000 population in 2003 to 94.3 in 2006 (NISR 2007b). The death rate from TB has not significantly declined in recent years. It was 6 per 1000 population in 2005, fell to 4.8 per 100,000 population in 2007 and was 5 per 100,000 populations in 2008 (NISR 2009, P37).

**Inequality Analysis**

Maintaining good health and having a high quality of life is generally about leading a healthy lifestyle, having enough to eat, preventive health care (vaccinations, mosquito nets, contraceptive advice, antenatal care, advice on reproductive health), living in a safe environment (access to safe water and sanitation facilities, education in hygiene) and having access to health care when necessary. Health inequalities in Rwanda, not surprisingly, closely correlate with economic ones; those who are poor are less likely to be healthy than the better off. Those who are healthiest live in urban areas, are more educated and are in the higher wealth quintiles. They are also the ones with the greatest access to clean water and modern sanitation facilities. Inequalities in health care remain, with those in the highest wealth quintile over twice as likely to consult a doctor when unwell as those in the lowest quintile. One factor is access; those in the lowest quintile live on average 15 minutes further away from a health centre than those in the highest (Ministry of Finance and Economic Planning, 2007, P20).

The best preventive measure for malaria is to sleep under a long-lasting insecticide net (LLIN). Ownership of at least one LLIN has risen dramatically in recent years, from 15 per cent of households owning at least one in 2005 to 56 per cent in 2007-08. Fifty-nine per cent of households own at least one mosquito net (56% a LLIN) – 69 per cent in urban areas, 71 per cent in the City of Kigali and 72 per cent of those in the richest quintile. Twenty-seven per cent of households have two or more nets, with the highest proportion being in Kigali City (39%) and in Eastern Province (33%). However, only 60 per cent of children under five sleep under a net and 56 per cent sleep under a long-lasting insecticidal net (LLIN) although this is a dramatic increase from 2005, when only 16 per cent of children slept under a mosquito net. Boys under five are slightly more likely to sleep under a net than girls, as are those living in urban areas, those living in Kigali city and those living in households in the fourth and highest wealth quintiles (Ministry of Health et al 2009, P82, 84).

The proportion of pregnant women who sleep under mosquito nets is much higher than for all women in the same age group. The proportion of pregnant women sleeping under a mosquito increased significantly between 2005 and 2008, from 17 per cent in 2005 to 65 per cent in 2008 while the proportion of women in general was 49 per cent. The regional, residence and wealth quintile differences follow the general pattern discussed above (Ministry of Health et al 2009a, P86).

In 2007-08 the IDHS (Ministry of Health et al 2009, P91) tested all children aged 6-59 months and women in the sampled households for malaria. Nationally 2.6 per cent of children and 1.4 per cent of women tested positive. The proportion of children with malaria was higher in rural areas (2.7% compared to 1.9%). The highest prevalence rate was in Eastern Province (5.3%). For women there was no difference between urban and rural areas but the rate was higher in Eastern Province (2.9%) and amongst non-pregnant women (1.4 per cent, compared to 0.9% for pregnant women).

**Key Implementation Bottlenecks**

- The human and physical resources for detecting and treating malaria are inadequate and home treatment of malaria needs to be scaled up. There remains a big gap between the number of bed-nets distributed

and the number of women and children sleeping under them (Ministry of Health, 2008). The national campaign for free mosquito nets for children under five years of age, pregnant women and other vulnerable groups needs to be accelerated.

- Community-based Directly Observed Treatment Short Course (DOTS) needs to be provided in all districts and there is room to increase the success rate of treatment with DOTS. A rapid drug sensitivity test for testing for drug resistance needs to be introduced and the implementation of infection control measures in hospitals needs to be improved (Ministry of Health, 2008).
- Although the Community Based Health Insurance has increased its membership, not everyone can afford the cost and the Ministry of Health cannot subsidize out of its budget all those unable to pay for themselves. This leaves a substantial number of very poor people without health insurance and access to health care (Ministry of Health, 2009a).

#### Priorities for Interventions to Accelerate Progress to Achieving MDG 6C

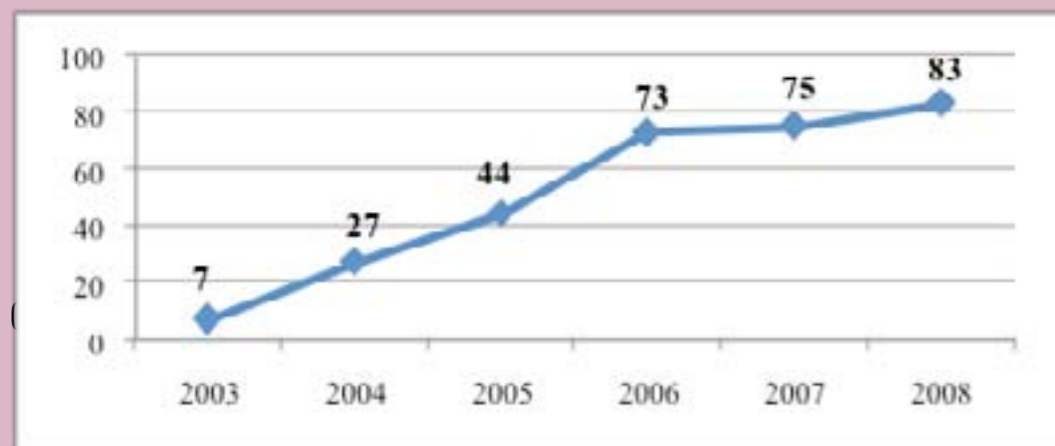
- Support for increasing the numbers of children and pregnant women sleeping under an LLIN and integrating the distribution of nets with an immunisation and antenatal programme.
- Expanding diagnostic and curative services for malaria.
- Expanding high quality DOTS.
- Increasing understanding amongst TB patients of multidrug-resistant strains and improving treatment.
- Improving the emergency epidemic preparedness management and response system at national and district levels.

#### Factors that Have Contributed to Accelerated Progress

##### Health Insurance For All

The Community Based Health Insurance has greatly improved access to health care, with a majority of the population having access to health care and drugs. Eighty-five per cent of the population is covered by the scheme, including nearly a million of the very poor whose contributions are paid by the Ministry of Health with support from development partners. This is up from less than 10 per cent of the population in 2003 (Ministry of Health 2008; NISR 2009 P49). In addition, six per cent of the population is covered by other health care schemes (NISR 2009, P49).

Figure 22: Population Covered by Mutual Health Insurance (%)



Data Availability – Main Sources	Data Quality	Challenges	Recommendations
Ministry of Health Statistics Demographic and Health Surveys most recent 2007-08	Currency of survey data. Accuracy of administrative data.	Lack of power in some health facilities. Getting administrative data from non-governmental health providers. Making full use of available data – lack of capacity to analyse	Annual survey. Building the capacity of non-governmental health providers to make statistical returns.

# Goal 7: Ensure Environmental Sustainability



## Targets 7A and 7B: Sustainable Development and Reduction of Biodiversity Loss

**7A:** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

**7B:** Reduce biodiversity loss, achieving, by 2015, a significant reduction in the rate of loss

### Indicators

- Proportion of total water resource used.
- Proportion of terrestrial and marine areas protected.
- Proportion of species threatened with extinction.
- Proportion of land covered by forest.
- Carbon dioxide emissions (per capita).
- Consumption of ozone-depleting CFCs (OD tons).

### Status at a glance

- Off track

### Status and Trend

Rwanda undoubtedly faces significant environmental challenges, and needs to invest significantly in adapting to current climate challenges as well as in adaptation to future climate change. The Government's recently published first comprehensive State of the Environment Report concludes that on a regional and global level environmental performance is exceptionally weak (REMA 2009b). Rwanda is ranked 135th out of 163 countries with a score of 44.6 on the Environmental Performance Indicator 2010 ([www.epi.yale.edu](http://www.epi.yale.edu)). Whilst carbon dioxide emissions are low at present they are predicted to double from the 2006 level by 2020 (Stockholm Environment Institute 2009).

However, Rwanda recognises the importance of sustainable development, environmental protection and reducing biodiversity loss. It has in place a strategy, the environment is a crosscutting issue in EDPRS and through concerted Rwanda effort looks likely to achieve the Indicator for proportion of land covered by forest. In the EDPRS the environment and natural resources are seen as fundamental components of sustainable national development.

### Rwanda's Strategy for Sustainable Development

- Organic Law No 04/2005 Determining the Modalities of Protection, Conservation and Promotion of the Environment in Rwanda.
- Organic Law No 08/2005 Determining the Use and Management of Land in Rwanda.
- Established the Rwanda Environment Management Authority.
- Biodiversity and wildlife policy developments.
- Programmes aimed at halting the effects of climate change, including preserving wetlands and forests as well as countrywide tree-planting.
- Strategies to halt the degradation and improve the fertility of the soil such as terracing of hillsides and increased use of fertilizers.
- Protection of river banks and lake shores for biodiversity conservation.
- Tourism revenue sharing scheme for communities surrounding Protected Areas.
- A country-wide ban on non-biodegradable plastic bags.
- Umuganda (nationwide community work) which includes activities such as litter cleanups, tree planting and terracing.
- Rubbish collection in Kigali with the litter recycled into cooking bricks as an alternative fuel source to charcoal/firewood.
- Development of renewable energies (Biogas, solar, hydropower) and concerted efforts to encourage the use of the improved cook stove.
- Rainwater harvesting in public and private institutions.

### Discussion

The main problems facing the environment in Rwanda are pressures from the growing population on the natural resources such as land, water, flora and fauna and other non-renewable resources. This is most evidenced in land degradation, soil erosion, a decline in soil fertility, deforestation, wetland degradation and loss of biodiversity. Key issues include deforestation due to the cutting down of trees for fuel, overgrazing, soil exhaustion, soil erosion and widespread poaching. Development will increase pressure on the environment through, for example, an increase in energy consumption, increased car ownership, an increase in pollution and urbanisation.

There is a strong association between poverty and environmental degradation, so that promoting environmental sustainability can be seen as a key element of a pro-poor policy. The deterioration of the soil reduces food availability for those who depend only or mainly on agriculture for their livelihood (about 80 per cent of the population). Rwanda is experiencing unusually heavy land loss and about half of Rwanda's farm land shows evidence of modest to severe erosion. Most soils in Rwanda are exhausted due to continuous farming and little use of fertilizers. Low productivity and high levels of poverty mean that many farmers cannot afford fertilizers. Thus there is a vicious cycle between poverty and environmental degradation, with the poor being both victims and agents (REMA 2009a).

The livelihood and food security of a majority of the population depend directly on the ecosystems and the goods and services derived from them, as does the health of the population. There is a high correlation between areas where there is food insecurity and high population pressure, soil erosion and degradation and/or areas prone to drought. The efforts to diversify the economy depend on natural resources, for example, producing crops and handicrafts for export and high-end eco-tourism. The primary sector requires natural resources including organic matter, soil, water, forests, fisheries and energy, and the industrial sector to a large extent depends on the raw materials produced by the primary sector. Given all this, one concern that has been raised is whether Rwanda is prioritising spending on environmental protection sufficiently (REMA 2009a).

Rwanda has a wide variety of ecosystems and of flora and fauna. The rich biodiversity is mainly conserved in protected areas (3 national parks, natural forests and wetlands) which cover about 10 per cent of the country. There are a number of endangered species and plants in all the protected areas. The main threat to



biodiversity and genetic resources are population pressure and the problem of land scarcity. Other threats include loss of habitat by conversion of natural habitats, mining, agriculture and the introduction of alien species. There has, for example, been a decline in the number of animals in the Akagera National Park associated with the decline in land under protected status, both authorised and unofficial. Other threats include the cutting of bamboo in Nyungwe and Volcanoes National Park, poaching and trafficking, and the introduction of alien species (REMA 2009a).

About 10 per cent of Rwanda's dry land is covered by forest, excluding small woodlots and agro-forestry resources. There was a loss of about 64 per cent of the forest between 1960 and 2007 and rapid population growth has increased pressure on forests in terms of encroachment and deforestation (2009a). Despite a Government programme of reforestation and attempts to reduce the use of wood for cooking, there is little prospect that Rwanda will achieve the 2015 MDG Target of 25 per cent of its dry lands being covered by forest. The Government has set a target of increasing the national forest cover from 10 to 30 per cent by 2020 (REMA 2009a). In order to reach this target there needs to be an increase in the number of protected forests and the number of tree plantations.

The government has placed restrictions on access to both natural and plantation forests, but clandestine activities take place in the form of skimming off of tree species of high value. The Government also encourages rural communities to practice reforestation, and between 2001 and 2006 the proportion doing so increased from 40 to 60 per cent (NISR 2007a). Out of 30 districts, 15 have already prepared their District Forest Management Plans with the support of development partners.

Wood remains the main source of fuel for cooking nationally and outside of Kigali. Overall, 88 per cent of households use wood for cooking, with 96 per cent doing so in rural areas. In Kigali 72 per cent of households use charcoal (NISR 2006, P24). Soil erosion is partly due to loss of wood cover and the degradation of soil fertility is partly due to the use of crop residue as fuel instead of as organic manure because of shortages of fuel wood. The shortage of fuel wood also adds to the work of women in rural areas, who have to walk further to collect it, and it may be one reason why girls are kept away from school, to help their mothers with such domestic tasks.

The carbon-friendly energy policy is based on a commitment to using renewable sources of energy and aimed at reducing dependence on wood for fuel together with a programme of reforestation. The Policy includes the introduction of the improved cook stove, the use of bio-gas generators, solar energy, hydro-electricity and the exploitation of methane gas in Lake Kivu. One of the fundamental principles of the agricultural strategic plan is environmental sustainability. The strategy includes actions directed towards the recovery and recuperation of the degraded resource base as well as strategies for managing the sustainable use of land for intensive agricultural production (Ministry of Agriculture and Animal Resources, 2009).



Water resources have a direct impact on quality of life and health. Water is essential for human life and for farming, industrial development and socioeconomic development, for energy and for transportation. It therefore plays a key role in economic development and poverty reduction. Rwanda has an abundance of water resources, including wetlands and aquatic areas. Water resources are mainly influenced by rainfall and evaporation, and climate change may have an impact on the management of the resources. There are 860 marshlands, covering a total surface area of 278,536ha, (10.6% of the surface), 101 lakes covering 149487ha and 861 rivers totalling 6462km in length. There is a need to manage the resources and to ensure that there is an adequate supply of water to meet growing demand from domestic, agricultural and industrial and commercial users. There is also a need to exploit the hydro-power generating potential (REMA 2009a).

#### Key Implementation Bottlenecks

- Mismatch between public expenditure on the environment and that required for implementing policy (REMA 2009b).
- No policies for water and wetlands conservation, no legal framework for land covered by forest or for biodiversity, including the protection of wildlife outside of the national parks.
- High population growth having a negative impact on the environment, including encroachment for human settlement and farming onto marginal lands, marsh lands, national parks and forests.
- A lack of experts in forestry management, in water resource management and to work in the energy sector, causing ineffective implementation.
- The continuing use of firewood and charcoal for cooking due to the lack of affordable alternative sources of energy.
- Continuing low use of fertilizers by subsistence farmers.
- The high cost of energy, the need to import energy from neighbouring countries and slow progress in biogas and hydroelectricity programmes.
- Inadequate M & E and investment in credible/reliable surveys and studies.
- Inadequate inter-sector collaboration and engagement resulting in a lack of coherent implementation of socioeconomic programmes.

#### The Potential Impact of Climate Change on Achieving the MDGs

Rwanda already faces significant challenges due to the existing climate variability and faces having to deal with the adverse impact of predicted climate change. Rwanda has a current adaptation deficit; it is not adequately adapted to existing climate risks. Periodic floods and droughts (extreme events) already have major human and economic impacts and reduce growth. Floods in 1997, 2006, 2007, 2008 and 2009, for example, resulted in infrastructure damage, fatalities and injuries, landslides, loss and damage to agricultural crops, soil erosion and environmental degradation. Climate change has already had an adverse impact on Rwanda's ability to generate hydro-electricity

Future climate change will have an impact which will have economic costs and a negative impact on human well-being if mitigating strategies are not implemented. The mostly likely scenario is that there will be an increase in average annual rainfall and a raise in mean annual temperatures, continuing a trend that has been observed over the last 30 years. This is likely to increase the negative impact of floods. There could be a large increase in the health burden of malaria and other vector-borne diseases (REMA 2009a) and a negative impact on agriculture and increased energy demand due to demand for cooling (Stockholm Environment Institute 2009). Climate change, through increased rainfall, could have a positive impact on the ability to generate hydro-electric power.

Due to the high altitude of Rwanda much of the country does not have endemic malaria. The high risk areas are concentrated in parts of the lower lying Easter and Southern Provinces. However, the predicted rise in temperature will mean that more of the population will become at risk and this will increase the national



burden of malaria in terms of both prevention and treatment as well as lost productivity due to ill health. Indeed there is already some evidence that the rise in mean temperatures since the 1980s has raised the national burden of malaria (Stockholm Environment Institute 2009).

Given the high dependency of the economy on rain-fed agriculture, climate is very important and will be so for the foreseeable future. The Western and South Eastern regions are most affected by prolonged drought. Some districts in these regions are characterized by a high rainfall deficit, late onset of rainfall, early rainfall cessation and a significant number of dry spells. Droughts are often responsible for famine, food shortages, a reduction in plant and animal species and displacement of people in search of food and grazing land. In the northern and eastern regions heavy rainfall causes soil erosion, flooding and landslides. These extreme climate events have had an adverse impact on agricultural productivity. In 2008, for example, both harvests were negatively affected by the serious droughts that occurred at the beginning of the planting seasons. The drought destroyed just-planted seeds and in some cases delayed planting so that crops became vulnerable to dry spells late in the season, affecting the overall productivity (Ministry of Agriculture and Animal Husbandry 2009a).

Rwanda is vulnerable to natural disasters emanating from climatic or seismic disturbances, including drought, torrential rains, landslides, earthquakes, volcanic eruptions and epidemics. In the past 10 years these disasters have occurred periodically and seem to be becoming more frequent. Such disasters are exacerbated by poor farming practices, deforestation and environmental degradation. Any change in climate has a significant impact due to the over-reliance on agriculture in a context of overpopulation. Rwanda has identified six priority areas for adapting to climate change in the framework of implementing the Kyoto Protocol: integrated water resource management; setting up an information system for early warning of hydrological and agro-meteorological systems and rapid intervention mechanisms; promotion of intensive agro-pastoral activities such as zero grazing; introduction of species resistant to extreme conditions, such as cassava; development of alternative sources of energy to firewood, such as the improved cook stove and alternative energy sources; and the promotion of reforestation and afforestation programmes.

Mechanisms for disaster management, prevention, preparedness, assessment, mitigation and disaster reduction have been put in place. A Disaster Management Coordination Unit in the Prime Minister's Office was established by the Government in 2004, Disaster Teams at district and sector levels put in place in 2007 and a Ministry of Disaster Management established in April 2010. The Disaster Management Coordination Unit has carried out disaster risk assessments in most disaster-prone areas, including the northern, western and southern parts of the country. There is also ongoing monitoring of volcanic activity in collaboration with the Goma Volcano Observatory, but additional human and financial resources are needed.

There is a need to put in place an operational observatory network to track changing climate conditions. There is a lack of financial, human and technical resources, but the Government plans to strengthen its meteorological service gradually and establish an upper-air observatory, as well as mapping the spatial and temporal distribution of rainfall, temperature and humidity over Rwanda (REMA 2009a).

#### Priorities for Interventions to support Accelerate Progress to Achieve MDG 7 A + B

- Environment impact analysis and a comprehensive environment public expenditure review.
- Building adaptive capacity, notably in relation to meteorological and hydrological data collection, monitoring and forecasting.
- Proving support for building mechanisms and institutions to enable a low carbon, climate adaptation and climate resilience strategy and implementation plan to be developed.
- An expansion of the IMIHIGO programme.
- Building national capacity for biodiversity profiling and economic valuation.
- Modern energy sources, especially in rural areas.

#### Examples of Policies and Programmes that have contributed to Accelerated Progress

##### The Improved Cook Stove

The innovation of an improved cook stove made of clay and the training of women to make the stove has encouraged rural families to use it. (Many rural families had not been able to afford to purchase the metal version of the improved cook stove.) The evaluation of one project in the Eastern Province found that virtually all the women who were trained in making the stoves used them for cooking (Gasana, 2008). The research also showed that the health of household members improved because of the reduction in atmospheric pollution in homes. The use of the stove also reduced the amount of time women had to spend collecting firewood.

##### Target 7C: Improve Sustainable Access to Safe Drinking Water and Basic Sanitation

###### Indicators

- Proportion of the population using an improved drinking water source.
- Proportion of the population using an improved sanitation facility.

###### Status at a glance

- Potential to be achieved with support to accelerate progress.

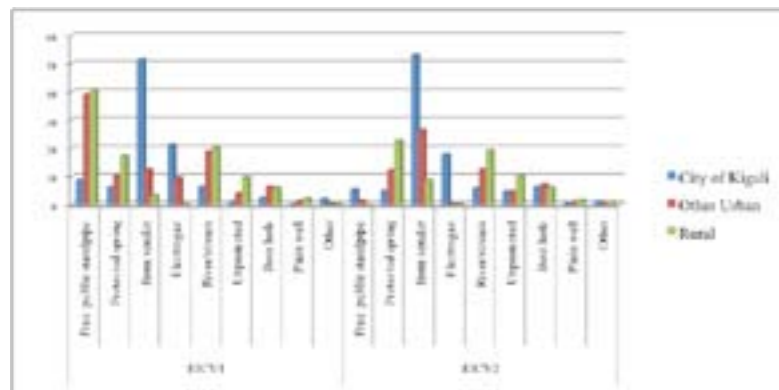
Access to safe water and hygienic sanitary facilities are a precondition for health. Over 80 per cent of the diseases that afflict Rwandans are water-born. Progress in increasing the proportion of the population that have access to safe drinking water and/or an improved sanitation facility is increasing, but only slowly. Poor waste disposal practices also pose a threat to public health.



Lack of access to safe water is closely linked to poverty and poor health. The findings from EICV1 and 2 (NISR 2007a, P61) indicate that there was no improvement in access to safe water between 2000 and 2006, a finding confirmed by the IDHS (Ministry of Health et al 2009, P12). Twenty-two per cent of households consume water that is either questionable or unsafe in urban areas and 34 per cent in rural ones (Figure 28). In total just under a third of Rwandans consumed water from unsafe or questionable sources as recently as 2007-8. Even in communities where there is access to safe drinking water, 25 per cent of households use unsafe water (NISR 2007a P68). Those using unsafe water travel twice as far on average to collect it as those using safe water, suggesting that the main factor is cost. Thus around a third of the population are exposed to the risk of preventable illnesses such as worms, dysentery and cholera that are all associated with poor hygiene.



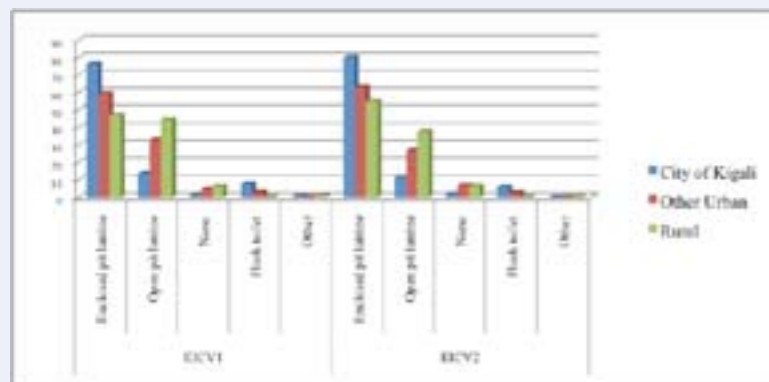
Figure 28: Household Drinking Water Supply by Location (in %)



(Source: NISR 2007a P62)

There was some improvement in access to improved toilet facilities between 2001 and 2006. Overall 58.5 per cent of households have improved toilet facilities (57.7% a VIP latrine and 0.8% a flush toilet). The proportion of households with improved toilet facilities is highest in Kigali (80.3% VIP latrine, 6% flush) followed by other urban (63.1% VIP latrine, 2.8% flush) and lowest in rural areas (55.1% VIP latrine, 0.2% flush) (Figure 29). As with drinking water, those living in rural areas are at greater risk of diseases due to insanitary conditions.

Figure 29: Household Sanitation by Location (%)



(Source: NISR 2006, P23)

Whilst it seems unlikely that the 2015 MDG Targets will be met without a push to accelerate progress, a high priority has been put on the development and implementation of environmental health standards. The EDPRS Targets are to increase the proportion of the population with access to safe water to 86 per cent and improved sanitation to 65 per cent by 2012. There are plans to give a hundred per cent of those living in urban areas access to an improved water source within 200m of their residence and 85 per cent of those living in rural areas access to an improved water source within 500m of their residence (NISR 2007b, P49).

### Inequality Analysis

Use of safe water for drinking is highest in Kigali, followed by other urban areas, with the lowest numbers being in rural areas. While over 80 per cent of households in Kigali use safe drinking water this falls to 70 per cent in other urban areas and 60 per cent in rural areas (NIRS 2006, P23). These results indicate that members of rural households run a greater risk of contracting preventable disease than those in urban households. There is also a significant difference between urban and rural areas of average distance from a water source. In urban areas 54 per cent of households are within 15 minutes' walk of their source of drinking water, compared with only 27 per cent in rural areas. The median time for the country as a whole

from a safe source of drinking water is just under nine minutes in urban areas and 29 minutes in rural areas.

In terms of domestic water supply use, figures from ELECTROGAZ show that there is a deficit in the drinking water supply in the City of Kigali of 34,565m<sup>3</sup> a day, meaning that less than half of the demand is being met. It is estimated that water demand over the next 10 years will double in both Kigali and rural areas and more than double in semi-rural areas (REMA 2009a).

There is also a problem of waste management in Kigali, with untreated sewage being disposed of on dump sites, posing a threat to health. Waste is also disposed of into ditches, drains and open spaces. These practices pose a threat to public health (REMA 2009a). The disposal of untreated waste is also a problem in other urban areas.

### Key Implementation Bottlenecks

- Need to separate sanitation from water and establish a sub-programme and budget line.
- Lack of capacity and expertise for implementing policy, especially in the districts, and a need for technical support.
- Inadequate sensitisation of the population to good hygiene practices.
- Delay in the rehabilitation of the three hydro-power stations of Mukungwa, Gihira and Gisenyi due to destruction of contractors' headquarters in an earthquake in China.

### Priorities for Interventions to Accelerate Progress to Achieve MDG 7C

- Implementing the programme to provide access to potable water in rural and urban areas.
- Improving access to improved sanitation facilities including enabling the provision of self sustaining sanitation chains, especially for poor urban communities.
- Supporting the private sector in developing affordable improved sanitation and other services. such as refuse collection and recycling of waste.

### Policies and Programmes that have contributed to Accelerated Progress

#### Biogas generators

Biogas generators are an important element of the Energy Policy and have been installed at a number of prisons and hospitals, with the Government strongly encouraging institutions and communities to install them. They provide a source of energy as well as a source of fertiliser. They are carbon friendly and help to prevent the unhygienic disposal of human and animal waste, reducing pollution including the contamination of water.





# Goal 8: Global Partnership for Development



Data Availability – Main Sources	Data Quality	Challenges	Recommendations
Demographic and Health Survey 2008 Integrated Household Survey 2006 Rwanda Environmental Management Authority	Currency of data. – data can be several years out of date.	Data not always analysed to provide necessary information for the sector.	The Rwanda Environmental Management Agency (REMA) report remedies this but survey and other data should be produced to enable monitoring of this Goal.

## Target: Address the Special Needs of the Least Developed Countries

### Indicators

- Proportion of total bilateral, sector-allocatable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation).
- Proportion of bilateral official development assistance of OECD/DAC donors that is untied.
- ODA received in landlocked developing countries as a proportion of their gross national incomes.
- Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative).
- Debt relief committed under HIPC and MDRI Initiatives.
- Debt service as a percentage of exports of goods and services.

### Status at a glance

- Potential to achieve with support of ODPs

Rwanda has proactively engaged on the world stage and received wide recognition for its commitment to achieving economic growth and stability within the context of a pro-poor policy and the promotion of gender equality. Its strong anti-corruption stance and its determination to become a 'good' place to do business are also widely acclaimed. Rwanda is a member of the East African Community, the Common Market of East and Southern Africa, New Economic Partnership for Africa's Development and the British Commonwealth of Nations. She has increased partnerships with many countries, organizations and institutions and also increased strategic diplomatic relations in recent years. In Asia, for example, Rwanda now has embassies in Singapore and Korea and is in the process of opening more in West Africa. Rwanda has also improved its relations with the Democratic Republic of Congo (DRC), and CEPGL (an economical cooperation between DRC, Burundi, and Rwanda), one of the objectives of the EDPRS, is now fully operational.

Rwanda regards strengthening its position within the East African Community (EAC) and the Economic Community of the Great Lakes Countries (CEPGL) as a priority and seeks to form partnerships for development. Strengthening her position within these partnerships will enable Rwanda to gain benefits and seize opportunities to increase trade through access to a wider market and have a long-term impact on economic development.

Rwanda obtained IMF-World Bank Highly Indebted Poor Country (HIPC) initiative debt relief in 2005–6 and completed the Multilateral Debt Relief Initiative. It received Millennium Challenge Account Compact in 2008 to support the Government's efforts to strengthen substantive democracy – civic participation,

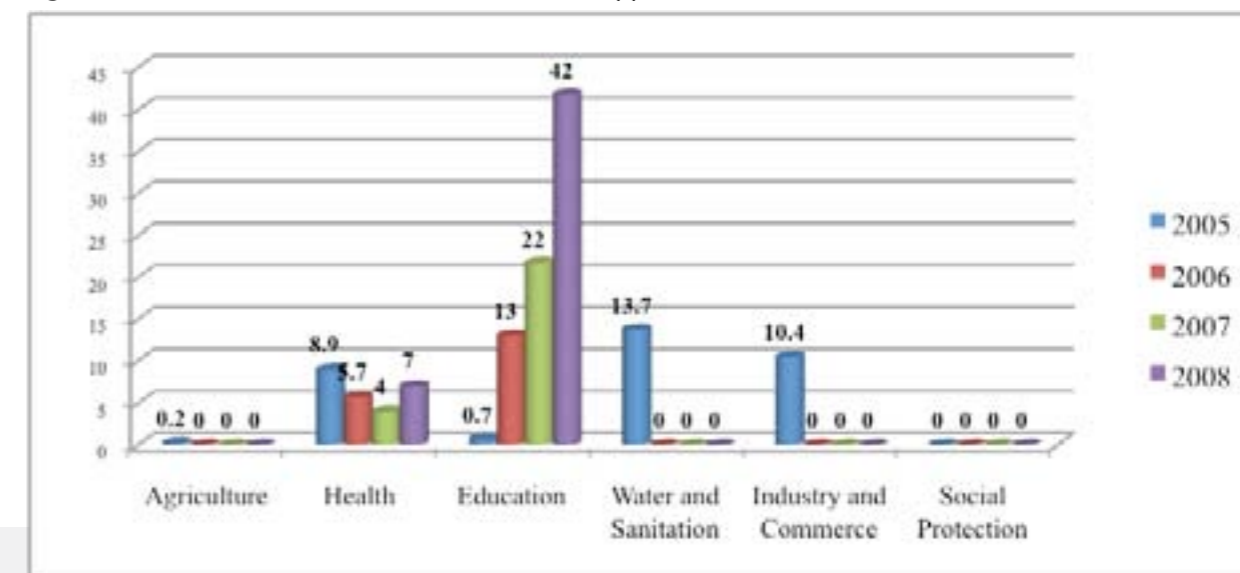
promotion of civil liberties and national civil society organisations, and expansion of citizen engagement by supporting independent radio stations. The funding was also to support efforts to improve the capacity of the judiciary and bring in legislative reform to strengthen civil liberties, human rights and civic participation. A final element was to boost the training of journalists and the Rwandan National Police force in an effort to further transparency and professionalism. The score card for Rwanda for 2009 indicated that on the Ruling Justly criteria it scored green (above the mean for the peer group) on three criteria (control of corruption, government effectiveness, rule of law) and red on three (political rights, civil liberties, voice and accountability). On the Investing in People criteria it scored green on three (immunization rates, health expenditure, primary education expenditure) and red on two (girls' primary education completion, natural resource management). On the Economic criteria it scored green on four (regulatory quality, land rights, inflation, fiscal policy) and red on two (business start-up, trade policy) (Millennium Challenge Corporation).

Rwanda is highly dependent on ODA with just over half of government spending coming from it (Ministry of Finance and Economic Planning 2009). Between 2005 and 2008 the proportion of ODA spent on basic social protection (health, education, water and sanitation and social protection) varied from just over 44 per cent in 2008 to 56 per cent in 2007 (authors' own calculations from data in NISR 2009). The 2007 MDG Country Report (NISR 2007b) highlighted the significant increase in ODA that Rwanda had enjoyed in the previous decade, with a peak of about US\$900 million in 2004. After 2004 it fell dramatically and stood at US\$497 per capita in 2005 (NISR 2007a). Since 2005 ODA has steadily increased (NISR 2009 Ps 123 -124) and stood at US\$773 per capita in 2008. The main sources of ODA have remained unchanged since 2005, with multilateral donors and consortia (World Bank, European Commission, and African Development Bank) accounting for the largest share, with the rest coming from bilateral donors. The Government has demonstrated in recent years that it has the capacity for the disbursement of aid (Ministry of Finance and Economic Planning 2009b, P 9).

A major concern has been that much donor assistance has been poorly aligned with the Government's priorities, limiting the impact on poverty reduction and economic development (NISR 2007b; Ministry of Finance and Economic Planning 2007). There is a need to ensure that ODA is used more effectively, for it to be more closely aligned with the Government's priorities and for more use to be made of the SWAp. However, as of 2008, there was no evidence that donors were moving to adopt the SWAp and education remained the only sector in which this approach was used (Figure 30).

Of the total projected cost of EDPRS of 343 billion FRW, the contribution of domestic revenue was projected as 172 billion FRW, leaving a funding gap of 171 billion FRW. The projected income from external committed budgetary grants was 772 billion FRW, leaving a funding shortfall of 942 billion FRW (US\$ 1,765) over the five-year period (Ministry of Finance and Economic Planning 2007, P125). Two scenarios are considered possible for funding the shortfall. The most favourable is to assume that Rwanda is able to get 100 per cent external grants to fund the shortfall as per the G8 Commitment; the alternative is to assume 50 per cent is funded by additional grants and the other 50 per cent by additional borrowing (Ministry of Finance and Economic Planning 2007, P127). An analysis of the external funding received for 2008, committed and disbursed (NIRS 2009), and the projected public financing of EDPRS in 2008 (Ministry of Finance and Economic Planning 2007, P125) suggests that there was a slight shortfall in external grants and loans (authors' calculations). However, the most recent budget forecast by the Government (2009) predicts a shortfall in the funding required for the EDPRS by 2012, due at least in part to the fall-out from the global economic downturn (Ministry of Finance and Economic Planning 2009c). The EDPRS already anticipated that some of the MDGs would not be met (Ministry of Finance and Economic Planning, 2007 P120). If the predictions about a budget short-fall by 2012 prove correct this reduces even further the possibility of Rwanda achieving the MDGs without additional support to accelerate progress.

Figure 30: ODA Contribution to Sector Wide Support (in %)



(Source: NISR 2009, Ps 123 - 40)

#### Key Implementation Bottlenecks

- Some donors are currently channelling budget support to the state in Rwanda, and to good effect, though this still represents a small proportion of the total aid. Aid delivery should be managed through mechanisms agreed upon by both donors and Government in order to facilitate monitoring of aid flows and its disbursement.
- Limited internal capacity to define implementable priorities clearly.

#### Priorities for Intervention to Accelerate Progress to Achieve MDG 8A

- Building the partnership for development between the Government and the development partners so there is mutual accountability and more ODA is committed to the SWAp.
- An impact assessment study of the EAC Common Market on Rwanda's economy to inform an operational integration plan.

#### Examples of Policies and Projects that have Contributed to Accelerated Progress

##### The Sector Wide Approach Programme in Education

In the education sector a significant proportion of ODA has been given for the Government to invest in its priorities. The Sector Wide Approach in the education sector enabled the coordination of all stakeholders in planning and has been identified as a significant factor in enabling good progress towards achieving the education MDG (as well as PRSP, EDPRS and Vision 2020). The coordinated planning was accompanied by a strong monitoring and evaluation framework and support from the key donors.

##### The Potential Impact of the Global Economic Crisis

Rwanda's high dependency on ODA and its limited trade diversification leaves it particularly exposed to shocks. Like other sub-Saharan African countries Rwanda's relative isolation from the international financial market protected her, at least initially, from the worst impact of the economic downturn. The economic downturn, however, could impact on Rwanda in four ways:

- a reduction in overseas development assistance;
- a reduction in foreign earnings due to reduction in earnings from exports and a decline in earnings from tourism;
- a decline in foreign investment;
- a reduction in receipts from the Diaspora.

The Government has identified two potential near-term risks. The first is that there is an increase in the adverse balance of payments. The second is that there is a decline in domestic tax revenues as growth slows due to the global economic crisis. The latter could be compounded by a reduction in revenue from tariffs with membership of the East African Community. The combined effect may be to reduce domestic revenues to levels insufficient to cover the levels of recurrent spending envisaged in the EDPRS (EDPRS 2008 Implementation Report). This may have a negative impact on progress towards achieving the 2015 MDGs.

There is, as yet, no evidence of a negative impact on ODA. However, the cost of imports has increased, resulting in an increase in the negative balance of trade, it has become harder for private-sector firms to borrow money, and interest rates have increased, making borrowing more expensive.

An analysis by the World Bank (Lofgren et al 2009), using 2005 data as the baseline, considered the potential of Rwanda achieving the MDGs based on a number of scenarios including one, CRISIS, which assumed a scaling down of overseas aid as a consequence of the global economic crisis. In their analysis, progress towards achieving most of the Goals would be set back.

Target 8B: Provide access to essential drugs and make available the benefits of new technologies, especially information and communications

#### Indicators

- Proportion of population with access to affordable essential drugs on a sustainable basis.
- Telephone lines per 100 populations.
- Cellular subscribers per 100 populations.
- Internet users per 100 population.

#### Status at a glance

- Around a 90 per cent of the population have affordable access to essential drugs
- Unlikely to achieve substantial increases in use of telephones and internet

#### Status and Trend

Access to affordable drugs is essential for maintaining health, enabling people to be productive and alleviating suffering. Historically, poor countries have had difficulty in accessing drugs because of the high prices charged by drug companies. The increased availability of generic drugs, the growth of the pharmaceutical industry in India and agreements to permit drugs to be manufactured for sale at a lower price in developing countries have made essential drugs more affordable. Antiretroviral treatment is available for all HIV-positive individuals in Rwanda who meet the criteria for treatment, although not all those eligible do access treatment. Other essential drugs are available through the mutual health insurance scheme. Eighty-five per cent of the population is covered by the scheme and is therefore entitled to medicines, as is the additional six per cent of people covered by other health insurance schemes. This leaves about 11 per cent of the population without access to essential medicines (pregnant women have access as of right); some of these are unable to afford to pay for health cover but the Government has inadequate funds to pay their subscription for them (NISR, 2009).

Access to telephones, computers and the internet are increasing seen as essential in the North in the 21st Century, yet most people in the South do not have access to ICT. Rwanda has developed an integrated ICT policy with a clear vision of making ICT a critical part of its socio-economic development plan. The vision is to move from an agrarian base to a knowledge economy by 2020. However, despite strong political

commitment, Rwanda faces major challenges in implementing its vision, including the lack of a skilled workforce.

The rapid development of the rural economy in Rwanda will depend, among other things, on access to adequate telecommunication services. ICT can contribute to poverty alleviation and social, economic and political inclusion. A private new player, Artel Communications, is providing access to telephony in remote areas and has installed very small aperture terminals (VSAT) in a number of districts, mostly rural (Nsengiyumva and Habumuremyi 2009).

There is some evidence that there has been an increase in ownership of cell 'phones but ownership is heavily concentrated in urban areas and reception can be poor in rural areas (NISR 2009). Whilst mobile cellular networks covered 92 per cent of the population in 2008, up from 80 per cent in 2005, there were only just over 1.5 million subscribers (1,520 340), about a 14 per cent penetration rate. This was, however, a significant increase from 2005 when there were just 243,258 subscribers. The number of subscribers to fixed phones remains low and decreased between 2005 from 23,601 subscribers to 16,770, suggesting that mobile phones are substituting for fixed ones. The majority of mobile phone users (about 60%) live in Kigali, which accounts for around a tenth of the population. Tuvugane (Let's Talk) public payphones were intended to open up access in remote rural areas, but about 90 per cent of Tuvugane dealers operate in urban areas (RURA 2008).

There has been significant increase in the infrastructure, including the National Broadband Backbone for the internet, but access remains low (NISR 2009, P87) and there is a growing divide between a small minority who are information-rich and the vast majority who are information-poor. The Broadband Backbone, for example, is available only in Kigali and other major cities. The problem is compounded by lack of access to electricity due to shortages, lack of availability and the high cost. As we have noted above, not all schools and health centres have access to electricity and are therefore not able to use computers.

Access to IT is also important for those who want to start small businesses, and mobile 'phones can enable HEs and MSMEs to use telephone banking. Telemedicine is an important way of being able to deliver health care to remote rural areas.

#### Key Implementation Bottlenecks

- The cost of telecommunication constrains growth (Ministry of Trade and Industry, 2009).
- A lack of service-led agreements to enable the monitoring and evaluation of performance and drive actions for improvements in service delivery. Internet connection times are slow, as is the time for uploading/downloading documents.
- A lack of a clear broadband policy (RURA 2008) and lack of adequate consideration of the infrastructure and investment needs.
- A shortage of skilled ICT technicians.
- A lack of awareness amongst potential customers, especially in the private sector, of the benefits offered by broadband technologies.

#### Priorities for Support

- Extending ICT to rural areas and developing awareness of the uses and benefits of the technologies.
- Driving down the costs of mobile 'phone and internet services.
- Expanding the one-computer-a-child project.
- Providing affordable computers for TVET and higher education students.
- Providing training for HEs and MEs in using the mobile 'phone and computers in their enterprises and income generating activities.



One Laptop per child



Rwanda, as part of its drive to become a knowledge-based economy and to ensure that every child has a quality education, has signed up to the one-lap-top-a-child initiative. The initiative aims to enable every child to have access to world-class education, to the world's body of knowledge and to each other by providing them with inexpensive computers.

Conclusions

The main conclusion is that Rwanda has the policies and programmes in place to achieve poverty reduction and human development but that it will not achieve all the MDG Targets by 2015. Good progress is being made for many, but the accelerated rate of progress required for achieving some Targets looks to be too challenging, taking account of the rate of progress to date.

However, it is important to maintain a wider perspective. There is a danger of becoming narrowly focused on achieving Targets and Indicators and losing sight of the Goals. The Indicators and Targets are a useful way of monitoring process to achieving the ultimate Goal but achieving the Goal must remain the primary objective. It is also essential to keep in mind that all the Goals are interrelated and aimed at supporting human development, building the capability of everyone to be able to make real choices over their lives. In the spirit of the MDGs we should also be concerned about access to services and their quality. In Rwanda services may be available but the ability of everyone to access them needs to be given attention as does their quality.

The inequalities analysis suggests that there are three groups in the population. One group mainly live in urban areas, have employment that pays a living wage, have secondary or tertiary education and have access to good services including schools, health water and sanitation and ICT. This is the group that has benefited the most from recent growth, and this group grew in size between 2001 and 2006. The second group is mainly rural but includes those who earn wages that are on or just above the poverty line and live in urban areas. They are predominantly engaged in agricultural production but gain a significant amount of their household income from non-agricultural activities. This is the group that is set to take advantage of many of the policies in the EDPR to build human capital, invest in improved methods of farming and move into non-farm employment that pays a decent wage. The last of these may involve setting up a household enterprise, for example. Legal title to their land will give them access to loans to invest in improving it or setting up small businesses. The third group comprises about a third of the population and live below the poverty line. They are vulnerable to shocks, they are spatially disadvantaged and have poor work opportunities. Most live in rural areas, are dependent on subsistence agriculture or on waged agricultural employment. Even if they own land, it cannot produce sufficient food to adequately feed the household. Women are more likely to be in this group than men.

Despite good progress and having achieved two of the three Indicators for MDG women continue to be disadvantaged, especially poor women and those living in rural areas. They are predominantly employed as dependent family workers, are significantly less likely than men to be in decent paid employment and the maternal mortality rate remains high. The burden on women of multiple births, demanding domestic duties and collecting wood and water must not be underestimated. Cultural attitudes to women remain negative, especially in rural areas and the rates of violence against women are high.

Reducing poverty is a prerequisite for human development. Education, good health and access to basic services also empower people and enable them to take control of their lives. However, it is difficult to take advantages of these services when life is a daily struggle for survival. Poverty reduction is above all enabling people, men and women alike, to earn a living wage and providing social protection for the vulnerable and weak. Rwanda needs to ensure that its pro-poor programmes are working and scale them up as rapidly as possible if the extremely poor are to benefit as well as the better off from economic growth.

Interventions targeted at addressing these and other priority areas will require a renewed partnership between Rwanda and its ODPs. Mutual trust and accountability is essential if the MDGs are to be met. More ODA must be given as SWAp and the ODPs must meet the Gleneagles commitments.

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