RWANDA CASE STUDY

Sprinting out of Poverty

Rwanda's Successful Experiment with Inclusive Growth and Accountability-Based Poverty Alleviation Programs

November 5, 2013

List of Acronyms

AfDB	African Development Bank
CIDA	Canadian International Development Agency
CIP	Crop Intensification Program
DFID	Department of Foreign International Development
EDPRS	Economic Development and Poverty Reduction Strategies
GOR	Government of Rwanda
JICA	Japan International Cooperation Agency
M&E	Monitoring and Evaluation
MTEF	Medium Term Expenditure Framework
MDG	Millennium Development Goals
PEARL	Partnership for Enhancing Agriculture in Rwanda through Linkages
SPREAD	Sustaining Partnerships to Enhance Rural Enterprise and Agribusiness Development
SSA	Sub-Saharan Africa
USAID	United States Agency for International Development
WFP	World Food Program
YBE	Year Basic education

1. Introduction

Rwanda has made dramatic progress in driving pro-poor growth since the cessation of conflict over a decade ago. The Rwandan economy has grown by 7-8% annually since 2000; making the country one of the strongest performers in SSA and internationally during this timeframe. A sound macro/financial and fiscal policy framework has been put in place which has created stable macroeconomic conditions; and massive improvements in core enabling environment conditions have been achieved (Rwanda ranked 32nd in the 2013 World Bank Doing Business rankings – making it the 2nd strongest performer in Sub Saharan Africa). These reforms have protected the poor (by helping keep inflation under control); while creating a viable post-conflict environment for attracting FDI and galvanizing local private investment.

At the same time, the GOR has made a massive push to increase public infrastructure investments. Infrastructure spending reached 13% of GDP in 2012 representing almost half of all public expenditures. This is an extremely high proportion of public spending by regional and international standards. The country has also dramatically raised core social development expenditures; increasing spending on education from 12.3% of GDP in 2006 to 16.9% in 2011. Transfers represented 6% of GDP in 2012 (again high by regional and international standards), and were tightly focused on targeted poverty alleviation programs. GOR capacity to support this significant expansion in targeted infrastructure expansion and social expenditure programs has also been buttressed by massive ongoing post-conflict donor inflows to support economic reconstruction and social reconciliation.

2. Recent Poverty Alleviation Trends

Rwanda has in fact made path-breaking progress towards poverty reduction since 2000. Since then the country has enacted two Economic Development and Poverty Reduction Strategies (EDPRS). The 1st phase covered 2001-6; and the 2nd 2008-2012. They focused on the establishment of a tightly focused and integrated strategic framework to achieve pro-poor growth and putting in place related public expenditure planning and implementation processes designed to support effective implementation of this strategic vision. A major focus was placed on improved agricultural output and productivity (since the agricultural sector accounts for approximately 90% of employment and the vast majority of the country's poverty-prone population depends on the sector for their livelihoods).

In addition, the programs have focused on major improvements in rural infrastructure (e.g., roads, electrical grid expansion, ICT outreach) and increased social expenditures in areas critical to improved social well-being (e.g., basic healthcare, primary education); as well as targeted transfer programs (e.g., one cow/family program). Programs have frequently featured incentive-based implementation frameworks (e.g. performance based contracting for health care outreach programs, revenue transfer allocations linked to the performance of local and regional governments in meeting social program performance targets); and have featured strong community engagement in setting program priorities and defining goals.

The overall impact of this strategic framework for pro-poor growth has been extremely impressive. Overall poverty has fallen from 59% in 2001 to approximately 45% in 2012. The percentage of the population in extreme poverty has fallen from 40% to 24% during the same timeframe. Income distribution has also improved slightly during this period; with the Gini

Coefficient falling from 0.52 to 0.49. Most of this improvement in poverty alleviation performance has occurred during the 2007-2012 period; when the poverty rate fell from 57% to 45%. The most significant gains in pro-poor growth have been experienced in rural areas. In this regard, 45% of the population which escaped poverty during the period resided in rural areas. The average poverty gap for the poverty-prone population also fell significantly during this period (from 72% in 2007 to 63% in 2012).

In addition, major improvements have been recorded across a range of key social indicators. HIV/AIDS testing and counseling program coverage has increased from 11% in 2005 to 37% in 2010 for men; child mortality has fallen from 60 per 1,000 live births in 2000 to 23 per 1,000 live births in 2008, for mothers with a secondary school education; and anti-malaria treatment coverage has risen from 15% in 2005 to 82% in 2010. The percent of rural roads considered to be in good condition doubled from 15% in 2005 to 32% in 2010; and primary school enrollment rates have risen from 86.6% in 2005/6 to 91.7% in 2010/11. Performance across these and a host of additional infrastructural and social development indicators underscores the impact which Rwanda's commitment to inclusive socio-economic development. This has been achieved within the context of performance-based and accountable public sector planning and implementation emphasizing pro-poor growth and improved income distribution.

Below we present a number of case studies in three primary sectors that have contributed most to the government's poverty reduction and economic development initiatives. These specific examples describe program design/implementation and impact in key sectoral areas. These programs were conceived by GOR and supported by a number of key development partners.

3. Education Sector

9-Year Basic Education (9 YBE) program: Early in 2009 the government introduced this program, which offers six years of primary education and three years of secondary education to all Rwandan children free of charge. The idea was to effectively promote universal education access at the primary and secondary school level. The Program has in fact contributed significantly to higher primary and secondary school enrollment in Rwanda. The net primary school enrolment rate has improved from 86.6% in 2005/06 to 91.7% in 2010/11 and Rwanda is on track to meet this Millennium Development Goal (MDG). As a consequence of this program, there are now 534,492 students enrolled in secondary education, 52% of whom are female.

4. Health Sector

Community-Based Health Insurance scheme: The successful implementation of this program, started in 1999, has significantly improved access to health services. The scheme covered 91% of the population in 2011/12, 1 percentage point above the target and a substantial increase from the 35% recorded in 2006. A strong foundation of community health workers reinforces the health system and facilitates direct provision of services at the household level. The implementation for this program has resulted in a better-resourced and more efficient health care sector yielding dramatic improvement in key health indicators. As a result, the infant mortality MDG target has been achieved, and under-five mortality improved from 103 per thousand live births in 2008 to 54.1 in 2011. Maternal mortality has also fallen from 750 per one hundred thousand live births in 2005 to 540 in 2010. Under this scheme, total health expenditures in Rwanda currently reach approximately $307 million annually about 53 percent of which comes from foreign donors.

The President's Malaria Initiative (PMI) in Rwanda: Rwanda has made significant achievements in scaling up malaria control interventions. During an extensive 15-month campaign, Rwanda distributed over 6.1 million long-lasting insecticide-treated bed nets (LLINs) and was one of the first African countries to reach universal net coverage in February 2011. The indoor residual spraying (IRS) program has expanded each year. The last spray round, conducted in August through October 2011, and protected 358,804 structures. Progress in case management and extension services is equally aggressive.

Reports indicate that 95% of all malaria cases are confirmed by microscopy or rapid diagnostic tests. Community health workers (CHWs) continue to play a pivotal role in malaria case management and half of Rwanda's extensive network of 45,000 CHWs are being trained and mobilized to implement integrated community case management.

As a part of Global Health Initiative (GHI), PMI and the Rwandan government are supporting integrated service delivery, including integration of malaria control with MCH and community-based health service delivery.

5. Environmental & Land Management Sectors

Decentralization and Environmental Management Project (DEMP): The Ministry of Natural Resources (MINRENA), developed a comprehensive National Environment Policy in 2003, which identified priority environmental issues and defined a process to address them in accordance with core policies of decentralization and good governance. GOR developed this project in a manner which would help simultaneously address interlinked priorities related to environmental protection, decentralization and poverty reduction. Rwanda has implemented the DEMP project since 2004. Significant progress has been achieved by way of empowering local populations in planning and decision making and bringing services closer to end-users. This allows local communities to identify issues that affect the population, plan and implement well-targeted interventions and put in place institutional mechanisms that promote sustainability. Since the initiatives under this project are conceived and implemented by local Authorities, their acceptance and effectiveness is very high.

Land Regularization Program (LRP): Under this program, the Land Act of 2005 (Determining the Use and Management of Land in Rwanda) was effectively implemented, representing a core thrust of the EDPRS. The LRP undertook a comprehensive effort to register all land parcels in Rwanda under a support program led by DFID. The goals of the LRU were poverty alleviation, gender equality, and optimization of land use in Africa's most densely populated nation. At the end of the registration process, the LRP aimed to:

- Achieve comprehensive land registration
- Provide 88,000 households with certain land title
- Increase arable land management to 80%
- Create certainty in land demarcation for local government administration and equitable resolution of disputes
- Allow for greater gender equality in land ownership
- Strengthen land administration at the district, zonal and national levels utilizing coherent land registry
- Engage in local consultation

As of the end of 2012, 81% of land parcels in Rwanda were registered (with the ongoing aim of 100% registration by end of 2014). In accordance with a 2012 DFID assessment report, the LRP had facilitated registration of 10 million parcels of land, and established an effective boundary delineation system. It has also directly supported gender empowerment objectives; as reflected by the fact that 92% of titles generated through the program list a woman as an ownership of the registered property.

Land Terracing: Under this project, funded by the World Food Program, in central Rwanda, 4,000 people worked for a year to build terraces on 240 hectares of hillsides in return for WFP food for them and their families. As a result, the farmer beneficiaries have tripled their incomes. Before terracing began in 2007 and 2008, local officials estimate that only 25 percent of the land was planted. As a result of this initiative, some 95 percent of the land is producing crops such as wheat, potatoes and peas. Since 2007, some 2,000 hectares in Rwanda has been terraced through WFP projects. In addition to provided employment and income enhancing opportunities, the land terracing program has significantly reduced erosion and introduced better grazing patterns.

6. Agriculture Sector

Coffee Value Chain Project: Rwanda began strengthening the coffee value chain in 2000—through the Partnership for Enhancing Agriculture in Rwanda through Linkages (PEARL). The project was supported by USAID and this support continued in September 2006 with a 5-year, \$6.1 million cooperative agreement with the Texas Agricultural Experiment Station to implement the Sustaining Partnerships to Enhance Rural Enterprise and Agribusiness Development (SPREAD) Project. Both PEARL and the SPREAD project were designed to develop high-value markets with the potential to increase the incomes of farmers and others in the coffee value chain. In addition to coffee, the SPREAD project formed two partnerships with private entities to increase sales of pyrethrum and chili peppers.

PEARL is credited for kickstarting the specialty coffee industry in Rwanda. Since 2000, PEARL has trained young Rwandan students in agronomy (because most people with expertise in this field either fled the country or were killed during the 1994 genocide), cupping and quality-control management. They also built new washing stations and formed farmer cooperatives, which have effectively given farmers more control of their product and a further economic stake in the quality of their coffee. In 2000, farmers from Rwanda's first coffee cooperative earned around \$0.20 for one kilogram of ordinary coffee. In 2011, these same farmers got roughly \$3.50 per kilogram, adding substantial income for coffee farmers.

The Land Husbandry, Water Harvesting & Hillside Irrigation (LWH) Project. This flagship EDPRS agricultural development program is focused on increasing crop yields and farm incomes in an environmentally sound manner by reducing soil erosion and expanding access to irrigated agriculture. The GOR’s program is targeted to include over 100 project sites and more than 30,000 hectares. Core implementers include the World Bank, USAID, CIDA, and JICA. The program has already expanded access to irrigated land for hillside farming operations to approximately 7,000 farm families. Program recipients receive intensive technology transfer and cultivation practice support, generating increased yields for root and tuber crops. The program also facilitates joint efforts by extension agents and community health workers to promote household consumption of these crops, particularly for women and children. In addition the program works to strengthen the role of the private sector in fertilizer wholesale/retail markets, thereby improving competitive access to key agricultural inputs for program beneficiaries. As a result of these institutional strengthening efforts, 66% of supported farmers have adopted improved cultivation practices and net sales from agricultural activities have virtually doubled to over $1,900 per hectare. In addition, 40% of the land in the project area has been protected against soil erosion, thereby protecting the environment. This is a prototypical example of a multi-faceted EDPRS Program which addresses productivity enhancement, improved nutritional status, and environmental protection goals in a synergistic manner; while drawing upon and further strengthening community-level social bonds.

Crop Intensification Program (CIP): This is another flagship program to increase agricultural productivity and promote commercialization. Implementation has been led by the Ministry of Agriculture and Animal Resources and supported by major donors including USAID. CIP aims to accomplish this goal by significantly increasing the production of food crops across the country by consolidating/integrating the production activities of small-holders on a voluntary basis (this is incented in part through the provision of land parcel registration support to project participants). CIP currently undertakes a multi-pronged technology upgrading and market integration approach that includes better provision of inputs (improved seeds and fertilizers), consolidation of land use, provision of extension services, and improvement of post-harvest handling and storage mechanisms. Started in September 2007, the CIP program focuses on maize, wheat, rice, Irish potato, beans and cassava.

CIP has imported improved seeds from neighboring countries such as Kenya and Tanzania. Through bulk orders, CIP imported fertilizers and distributed them to farmers using service providers. The bulk purchases help address the limited buying power most Rwandan farmers have because the average farm is highly fragmented. Through the above described approaches, the total production of maize, wheat and cassava tripled in the past 3 years. In addition, during this time, bean production doubled. Lastly, the production of rice and Irish potato increased by 30% over the past 3 years.

7. Infrastructure Sector

Rural Road Rehabilitation. Under the USAID-funded Title II Development Assistance Program (DAP), a rural network of tertiary roads and bridges in Rwanda have been rehabilitated to help farmers access markets and vital services. Rural road rehabilitation has also served as a key intervention to reduce food insecurity among vulnerable populations and increase farmer incomes.

In the Rwamagana District, the current state of agriculture for many growing areas is still characterized by low-value farming with little or no access to improved inputs. It is also constrained by poor access to markets and high transportation costs. The Title II Program has rehabilitated 56 km of tertiary feeder roads and 30 small bridges in Rubavu and Rwamagana Districts over the last seven years, benefiting 21,000 local inhabitants.

Through road rehabilitation, the project addresses these constraints by helping cooperatives and farmers access markets more easily for vital inputs such as improved seeds and fertilizers needed to increase agricultural production. Road rehabilitation is credited with improving commerce and trade, increasing transportation of goods and services and facilitating farmer access to markets in targeted areas under the DAP. As a result, tomatoes, sorghum, bananas, livestock and other commodities produced have increased significantly both in volume and in profitability.

The Butare-Kitabi-Ntendezi National Road Rehabilitation Project (115 km). As part of the implementation of its economic development and poverty reduction strategy, GOR has defined a priority program to improve its road network which supports key productive sectors. The BKN Road project was initiated in 2009 and funded by the AfDB. This road, which is part of Rwanda's primary road network, links the capital, Kigali, to the West and South of the country. Project beneficiaries are estimated at about 1.9 million, representing 19% of Rwanda's population.

Project KivuWatt Generates Electricity from Rwanda's Lake Kivu. A critically needed power project expected to generate 100MW of power, this program was initiated in 2010 and has recently been completed. Along the western border of Rwanda on Africa's 2,700 square kilometer Lake Kivu, the power project is generating electricity in a region beset by both geo-chemical and geo-political instability. The project uses Methane present at the lake bed that, if untapped, could erupt violently with disastrous effects on local lives, wildlife, and the environment. If safely extracted, however, the methane provides a source of electricity and reduces the geochemical risks associated with the untapped gas. The investment of approximately $92 Million came from several sources including the AfDB, Netherlands DFC and the Belgian Development Bank. The additional power supply will greatly enhance the area's agro-businesses, provide employment for thousands of workers and reduce poverty.

8. Conclusions & Lessons Learned

There are a number of key lessons learned which emerge from Rwanda's recent efforts in implementing effective pro-poor growth programs and related sector-specific interventions. While it is difficult to weigh the relative impact of different of key policy and institutional forces, the following factors appear to have played an important role in promoting effective program results, and distinguishing Rwanda's experience from those of other SSA countries whose poverty alleviation efforts have met with more limited success:

(1) ***A sound macro/structural policy environment:*** Rwanda has implemented a stable macro-financial and fiscal policy environment during the post-conflict era. It should be noted that these efforts have benefited from massive donor financial inflows (which represented around 15% of GDP during much of the period and exceeded local revenue-intake over much of that time). The country is now adjusting to the tapering off of such inflows by increasing revenue collection and committing to tightened expenditure controls (this will continue to represent a medium-term adjustment challenge). In addition, Rwanda has been a leading enabling environment reformer in the SSA Region; as reflected in its 32nd place ranking in the 2013 World Bank Doing Business ranking (2nd highest in the SSA region). The progress made under extraordinarily complex post-conflict institutional circumstances in stabilizing the macro environment and promoting an investor-friendly enabling environment has both stabilized investor expectations, and helped keep inflation under control. This in turn has helped drive increased FDI and job creation; while protecting the incomes of vulnerable segments of Rwandan society.

(2) ***A rigorous Sector Planning and Medium Term Expenditure Framework System:*** Rwanda has implemented a rigorous and goal-focused sector planning and MTEF system; which is tightly inter-linked with its EDPRS. The explicit linkage between the overall expenditure planning framework and the GOR's poverty reduction strategy has helped ensure effective prioritization by the GOR of expenditure programs critical to success of the strategy. In this regard, the GOR has gone beyond the establishment of

mechanical and superficial linkages between poverty alleviation program goals and *pre-existing sector* programs. Instead the EDPRS has become an organic driver of a successful medium-term expenditure planning process and an organizing mechanism to galvanize and coordinate donor spending in key infrastructure and social expenditure areas maximizing pro-poor growth.

(3) ***Heavy Focus on Physical and Social Infrastructure Investments and Social Development Expenditures:*** The strong linkage between the EDPRS and the MTEF system has in turn helped drive a path-breaking increase in critical physical and social infrastructure expenditures in Rwanda. Thus the public infrastructure budget reached 12% of GDP for 2012, representing almost 45% of expenditures – extremely high by regional and international standards. At the same time wages and salaries represented just over 10% of GOR expenditures in 2012 – quite low by comparison with many SSA countries. This systemic focus of the public expenditure system on pro-poor growth and well-formulated social development programs appears to have played a critical role in facilitating the attainment of the GOR's pro-poor growth strategy and goals and led to a significant reduction in patronage-based expenditures.

(4) ***Strong M&E and Results Reporting Frameworks:*** The implementation framework for EDPRS features a heavy emphasis on building in a structured M&E System and relating results reporting framework and system at the programmatic level. This in turn has promoted stronger bureaucratic accountability than is typically found in governments implementing poverty alleviation programs; and also has facilitated an effective "feedback loop" to facilitate programmatic adjustments as needed over time.

(5) ***Incentive-Based Expenditure Programming:*** The GOR has effectively tied regional (district) and community level resource transfers in key programming areas to successful adoption of mandated intervention approaches. Thus, for instance, in the HIV/AIDS prevention area, resource transfers to local clinics have been directly tied to their success in providing access to HIV counseling/testing services to couples rather than to individuals. Similarly, revenue transfers related to anti-malarial treatments have been effectively tied to success in distribution of long-lasting insecticide-treated anti-malarial nets, thereby enhancing distribution incentives and driving improved performance outcomes.

(6) ***Intensive Local Engagement:*** The EDPRS has been implemented with a very heavy focus on district and community level participation in program design and monitoring. This has been fostered by directly linking expenditure planning and allocation decisions, as well as on-going program monitoring and adjustment processes, to bottom-up consultation activities at the local and sub-regional levels. These in turn have been effectively tied into traditional community practices and structures (*Imihigo*); through which shared social expectations and obligations are established regarding the expected management of and results from critical pro poor growth related intervention programs. The explicit linkage of the expenditure planning and control/monitoring process to traditional social contract formulation and monitoring systems appears to have played a critically important role in promoting robust buy-in to and effective monitoring of poverty alleviation support programs at the sub-national level.

(7) ***Core Emphasis on Agricultural Development:*** The EDPRS has placed a centrifugal focus on support for smallholder-focused agricultural development. Under its aegis, major institutional strengthening and reform programs have been implemented in the

agricultural land access/rationalization, input supply systems, cultivation practices/productivity enhancement, agricultural information systems, and commercialization areas. This in turn reflected an awareness that the vast majority of the poverty-prone population in Rwanda (approximately 90%) derive their livelihood from agricultural activities. The World Bank recently estimated that over one third of the poverty reduction benefits associated with Rwanda's post-conflict poverty reduction programs are directly linked to increases in agricultural output and productivity, thus underscoring the importance of this core focus. The decision to interlink the poverty alleviation focus with an agricultural productivity enhancement and commercialization activities has also provided an opportunity to explicitly link agricultural support programs to community-based nutritional enhancement and educational enrollment activities as well; yielding important additional pro poor growth benefits.

(8) ***Major Emphasis on Off-Farm Employment Opportunities:*** The EDPRS has placed major emphasis on generating additional (secondary) off-farm income generation opportunities for the rural population in Rwanda. This has included a strong focus on support for household business activities as a significant additional source of income for farm households. Given the low average educational levels of farm household members and the endemic over-supply of landless laborers, technical/training support and microfinance network expansion to create household business has proven an important tool to help reduce rural poverty. The World Bank has estimated that approximately 16% of the poverty-reducing impact of the EDPRS over the past decade has been directly associated with the creation of off-farm employment opportunities; with most of that driven by household business-related income.

Finally, it is again worth noting that most of the progress towards poverty reduction achieved in Rwanda over the past decade – about 85% - was achieved during the implementation of EDPRS II. This in part reflects the fact that much of the progress achieved under the EDPRS I Program entailed moving large numbers of poor people *closer to* rather than *over* the poverty line; and also laid the institutional foundation for enhanced peace and security for the country's citizenry. In other words, in a fundamental sense the progress under EDPRS I laid much of the groundwork for the reduction in poverty rates and income inequality experienced under EDPRS II.

At the same time, it is also worth noting that systemic efforts to (1) directly link poverty alleviation strategy and program formulation to the sector planning and MTEF process, (2) create strong bureaucratic performance and resource allocation incentives tied to achievement of program goals, and (3) directly link these processes to the traditional social contract formulation mechanisms associated with the *Imihigo* system, were fully introduced only when EDPRS II began implementation. This in turn seems to point to the advantages of avoiding "stove-piping" of poverty alleviation and related social development programs; as well as the importance of creating a network of social contract-based incentives to promote their effective implementation. By effectively incorporating these programs within the broader medium-term budget planning process; the GOR has been able to effectively prioritize budgetary allocations towards sustainable poverty reduction and social development programs. By effectively linking their implementation to traditional social contracting mechanisms, the GOR has also built in stronger performance accountability mechanisms than are typically present in such programs. Through this strategy it has also been able to maximize the synergistic impact of broader public investment and social expenditure programs on poverty alleviation and job creation. These factors may have played an important role in driving the impressive pro-poor growth outcomes achieved in Rwanda under EDPRS II.