



IMPACT OF DEVELOPMENTAL PROGRAM (EDPRS II) ON ECONOMIC TRANSFORMATION IN RWANDA

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ABSTRACT

This study analyses the Impact of Developmental Programs on the Economic Transformation in Rwanda. This study reveals the impact of the transformation in Rwanda by the implementation of economic and poverty reduction strategies II (EDPRSII). EDPRS II aims to implement Rwanda's Vision 2020, ensuring that the country achieves middle-income status by 2020 by accelerating economic growth (up to 11.5% average), reducing poverty to below 30%, and restructuring the economy towards services and industry. Its main targets relate to: strategic infrastructure investment for exports; more private secures financing to increase exports; urbanisation; and a green economy approach to sustainability. Five priority areas will spearhead this thematic strategy. One of the fastest growing economies in Central Africa, Rwanda notched up GDP growth of around 8% per year between 2001 and 2014. The International Monetary Fund expects the economy to slow down this year and pick up in 2018, forecasting around growth in 2016 compared with 6.9% last year. This paper evaluates the, Poverty Reduction, Job trends before and after (EDPRS II), Sector output and share of GDP, Domestic and Foreign Direct Investment,(FDI), Infrastructure and road Development and Export and Import and Current Accounts etc. This study is based on qualitative methods and secondary data, the data related to EDPRS II and economic transformation in Rwanda. The time series data covering the period of 2000-2016, the data has been for 15 years related to EDPRS II and economic transformations in Rwanda. In this context, as we take this important step ahead in our future, let us increase our determination to become makers of history, to shape our development and elevate Rwanda into a new era of prosperity that will be celebrated for generations through our joint efforts.

Keywords: Poverty. Job trend, GDP, FDI, Infrastructure Development, Export and import and current account deficit.

1.1 INTRODUCTION

This study reveals the impact of transformation in Rwanda by the implementation of economic and poverty reduction strategies II (EDPRS II). Over the duration of EDPRS 1, Population of Rwanda, which is living below the poverty line was reduced from 56.9% to 44.9%. The EDPRS II is the program under five year plan from (2013-2018) by the government of Rwanda, initiated and launched first in 2001 by the President (H.E.PAUL KAGAME). However, one of the main objectives of EDPRS 2 is to ensure that Rwanda attains the Status of a low middle-income country by the year 2020. To be able to do this, the Rwandan economy will need to grow at a rate of least 11.5% p.a. over the duration of EDPRS 2, which in turn will require a change in current economic structures. In other words, Rwanda will need to undergo the process of economic transformation. Therefore, Rwanda has also made good progress over the last two decades since the enormous challenges faced in the aftermath of a genocide that destroyed the entire social and economic fabric of this country. Rwandans have benefited from the rapid economic growth, reduced poverty, more equality and increased access to services including health and education. This has been possible only through the hard work and dedication of millions of Rwandans supported by friends of Rwanda. Sustained progress strengthens the belief that our development ambitions towards the Vision 2020 can be achieved with our concerted efforts. The Second Economic Development and Poverty Reduction Strategy (EDPRS 2) is launched into the home strait with our Vision 2020. We are faced with new challenges of ensuring greater self reliance and developing global competitiveness. Conscious of these challenges, we forge ahead knowing that working together, we always can overcome obstacles.

The EDPRS 2 period is the tome when our private sector is expected to take the driving seat in economic growth and poverty reduction. Through this strategy, we will focus on the government efforts for transforming the economy, the private sector and alleviating constraints to assist the growth of investment. We will develop the appropriate skills and competencies to allow our people particularly the youth to become more productive and communities to engage decisively and to continue to develop home grown solutions that have been the bedrock of success. These are fundamental principles as we work to improve the lives of all Rwandans in the face of an uncertain global economic environment.

1.2 Economic Overview

Rwanda's long-term development goals are defined in a strategy entitled "Vision 2020". The strategy seeks to transform the country from a low-income agriculture-based economy to a knowledge-based, service-oriented economy with a middle-income country status by 2020. In order to achieve these long-term development goals and the government goals, the government of Rwanda has formulated a medium-term strategy. The second Economic Development and Poverty Reduction Strategy (EDPRS 2). The overarching goal of the EDPRS 2 is growth acceleration and poverty reduction through four thematic areas: economic transformation, rural development, productivity through youth employment, and accountable governance. The EDPRS 2 aims to achieve the following goals by 2018; raise gross domestic product (GDP) per capita to \$1,000, have less than 30% of the population below the poverty line, and have less than 9% of the population living in extreme poverty.

These goals were built on remarkable development successes over the last decade which includes high growth, rapid poverty reduction and (since 2005) reduced inequality. Between 2001 and 2014, real GDP growth averaged at about 8% per annum. Recovering from the 2012 aid shortfall, the economy grew 7% (on a yearly) and in 2014, it was 2.3% higher than that of the year 2013.

1.2.1 Development Challenges

Going forward, the private sector, which is still largely informal, will have to play a bigger role in ensuring economic growth. Poor infrastructure and lack of access to electricity are some of the major constraints to private investment.

In addition, reducing the country dependency on foreign aid (30% to 40% of the budget) through domestic resource mobilization is critical. While Rwanda has been effectively using aid for development, the country remains vulnerable to fluctuations in aid flows. Starting in mid-2013, Rwanda experienced a lagging effect of the aid shortfall experienced the previous year, causing the economic growth to decelerate to 4.7%.

1.2. Social Context

Rwanda was on track with regards to most of the Millennium Development Goals (MDGs) till the end of 2015. Strong economic growth was accompanied by substantial improvements in living standards, evidenced by a two-thirds drop in child mortality and the attainment of near-universal primary school enrolment. A strong focus on home-grown

policies and initiatives contributed to a significant improvement to access for services and in human development indicators. The poverty rate dropped from 59% in 2001 to 45% in 2011 while inequality was measured by the Gini coefficient reduced from 0.52 in 2006 to 0.49 in 2011.

1.3 The structure of the Rwandan economy

➤ **Overview:** Agriculture continues to be the largest employment sector in Rwanda (73%), but contributes only 36% of the total output.

- Both industry and services have experienced a rapid growth rate (9.5% and 10.2% respectively) over the last decade, with services now contributing the largest Share of GDP (49%).

➤ **Agriculture:** Agriculture sector growth during the last decade has been impressive, but has trailed growth in industry and services.

Rwanda has very few agro-processing industries (agro-processing is generally weak except for tea; amongst food-crops, only maize is processed and rice-processing is being developed but is at a fairly rudimentary stage); this means that there could be two or more areas to focus on for progress.

➤ **Industry:** In Industry, manufacturing accounted for 47.3% of the total output, Construction for 46% while mining is at a low of 4.7%

- The mining potential is the largest untapped arena: both domestic and foreign Investors need to be incentivized to the sector.

➤ **Services:** Government's contribution to services has been sizeable, accounting to about a quarter of total services. Wholesale and retail trade that mostly benefit from trickle down effects from agriculture output accounted to an average of 26% of the total services.

- Tourism continues to be the major source of services showing progress and export earnings: however, the target of 28% p.a. growth through exports cannot be achieved by focusing on tourism alone.
- Financial Services and ICT are still at a rudimentary stage (only 3% of Rwandans above the age of 6 are computer literate).

1.3.1 The size and strength of Rwanda's private sector

➤ Private sector in Rwanda is still nascent:

- It is dominated by micro enterprises, based at the household level

- Large and medium firms (that employ 31+people) constitute a paltry 0.5% of the total number of firms, but contribute to 25% of the total employment
- Large firms can exploit economics of scale, and typically demonstrate stronger management and have greater financial resources to be profitable, survive longer in the market, and contribute towards growth
- In recent years, examples of successful firms/investments in Rwanda Include Bralirwa, Bakhresa, Serena Hotel, Inyange industries etc.

Common futures of successful firms private sector firms have been:

- They have introduced new products and induced economic modernization
- Promoted professional jobs and development of new sectors
- Some were built to create demand, instead of merely satisfying an existing market (Serena is the leading example.) These were driven based on a vision of a future demands.
- Have a wide customer base
- Have linkages with other firms/sectors
- Strengthen the country's financial position, in particular by attracting foreign exchange
- Relatively successful sectors have included tourism, food processing, telecommunication, and transport and infrastructure.

1.3.2 Rwanda's exports

- Rwanda's export per capita value is one of the lowest in Africa, at < \$7 per capita
- The very low export base is a key constraint in the economy as it limits our access to foreign exchange
- Without increased exports, it will be impossible to decrease dependence on foreign aid (which is the main sources of foreign exchange today)

1.3.3 Rwanda's current export mix

- Rwanda's major exports commodities are-coffee, mineral products (tin ores, niobium, tungsten, chromium), and tea. These put together accounted for about 88% of the country's commodity exports.
- Manufactured products only accounted for about 0.5% of the GDP; less than 10% of Rwanda's manufacturing output is exported.

1.3.4 Manufacturing firms are focused predominantly on the domestic market

- The bulk of service exports come from tourism, however this is unlikely to be the driver of overall high export growth.

1.3.5 Private sector exports

- The number of exporting firms has increased by 150% (160 to 400) over the last 4 years, and this has come hand in hand with an increase in the non-commodity exports (from 6% of total merchandise exports in 2006 to 12% in 2010), though this is below the expected standards.
- Two-thirds of this growth in export firms came from retailers and wholesalers, and only one-third from producers. Thus, export growth has been driven by indirect exports (via distributors)

1.3.6 Export Destinations

- Over the past decade, there has been little discovery or recovery of markets
- Most commodity exports go to Europe, America, and Asia
- Currently, regional markets (largely DRC and Burundi) are the only markets where Rwanda's non-commodity exports are competitive.
- In recent years, several large companies (e.g. Stel Rwa) have entered Rwanda as a strategic way of accessing the DRC and Burundi markets. The EAC has a comparatively small share of Rwanda's goods exports despite the high number of firms exporting to the region, (13.4%, comprising predominantly of tea which is re-exported through the Mombasa tea auction) suggesting that Rwanda is finding it hard to compete on the EAC market.

1.3.7 Rwanda's infrastructure and economic development

- High business venture costs in Rwanda is key barrier to investment and private Sector development, further driven by high transportation costs too.
- Rwanda's electricity cost of \$0.24/kwh is significantly higher than that of its neighbours
- In 2010, only 1,225 km (8.8%) of the entire road network was paved pathway: 78% of the unpaved road network, which forms about 77% of the classified network was in poor condition

- Freight costs per km are more than 50% higher than the USA and Europe: transport cost can be as high as 75% of the value of exports.
- The ratio of transportation and insurance costs to the value of exports is roughly three times higher in Rwanda than the neighbouring coastal countries such as Kenya and Tanzania, though all this is not in Rwanda's control
- Access to serviced land for investors is the number one constraint for RDB in the Process of facilitating investor into the country, and considered by the World Bank Investment Climate Assessment (ICA) as one of the top 10 constraints to private sector

1.3.8 Rwanda's current cities contributing to the economic growth in par with their potential

- Rwanda is the 10th lowest urbanized country in the world, and only around 15% of the population lives in urban centres
- Ghana is one of the countries to achieve middle-income status with 52% urban population. Some of the average, middle-income countries had 39% of population living in urban areas in 2010
- However growth of urban areas is accelerating, with average growth of the urban population being around 4% per annum
- Urban planning is heavily focused on Kigali city and has, so far, failed to identify core-competencies of other potential urban centres
- People living in urban areas benefit from better access to infrastructure (e.g. 46% electricity penetration rate versus 5% in rural areas) and are better skilled
- With increased to urban centres, unplanned settlements are becoming a growing challenge, and are resulting in increased cost of infrastructure provisions.

1.3.9 The potential of leverage a 'Green economy' approach to contribute to economic growth

- The Rwanda Environment Management Authority has a number of reports (such as The National Strategy for Climate Change and Low Carbon Development) that include a few policy suggestions for targeting green development as a source of economic growth, but much more analysis needs to be done
- Rwanda is currently ranked very low in some of the international indicators on environment-friendliness-such as rank 135 on the Environmental Performance Index; this shows that there is considerable work to be done to promote the country's image

- Rwanda imports all of its oil-based products, which fuel 39% of the country's electricity generation capacity, and its entire transport sector. Hence, there is a need to look for alternative, eco-friendly ways to satisfy the energy requirements.

2.0 Review of Literature

Amis et.al.,(2000) investigate the relationship between urban economic growth, the provision of urban infrastructure and poverty reduction in Visakhapatnam, one of the largest port and industrial towns in India. In the study, the authors identify many dimensions of poverty, including inadequate income, lack of assets (lack of shelter, property and gold), lack of support (especially for widows, deserted women and the handicapped), illness and debt. The results of this participatory study indicate that the city's growth was constrained by inadequate investment in infrastructure, especially for water and electricity. This study suggested that the provision of physical and social infrastructure is important for poverty reduction.

Akinabobola et. al.,(2004) investigated the nexus between income inequality, unemployment and poverty in Nigeria using a vector autoregressive (VAR) approach. In this study, quarterly data on real capital income, government capital expenditure, unemployment rate and the human development index were sourced for the period 1986-2000 and used for the analysis. The results from the for-variable VAR model show that reduction in unemployment rate improves human development and consequently reduces poverty. Moreover, growth in public expenditure reduces unemployment and improves the human development index. This study suggests that infrastructure-based policies, which initially reduce unemployment, would also improve the living conditions of Nigerians.

Jalilian et, al., (2004) explore the nexus between infrastructure, growth and poverty using samples of courtiers from Africa, Asia and Latin America. Applying different theoretical and empirical techniques, they obtain results from the estimation of the ad hoc model' showing that on average, a 1% increase in the infrastructure stock per capita, holding human capital consistent, is associated with a 0.35% reduction in the poverty ratio, when poverty is measured by US\$1/day poverty headcount, or 0.52% when it is measured by US\$2/day poverty headcount. This study suggests that while infrastructure investment in general has its role to play in poverty reduction, physical infrastructure investment needs to be very substantial and must be supported by factors such as improvement in social infrastructure so as to promote rapid reduction in poverty.

Jerome et al., (2004) explore the impact of infrastructural reforms (that is, implementation of privatization and liberalization in telecommunications and private investment in infrastructure) on poverty reduction. The study notes that infrastructure reforms and privatization in Africa have been carried out without considering the needs of the poor and without meeting the policy preconditions that are indispensable for effectiveness. The consequence of this is that infrastructure privatization, rather than having a positive impact, has negatively affected the poor in Africa. The authors argue that the goals of infrastructure reforms can only be achieved if such reforms are undertaken in the context of appropriate market and regularity frameworks.

3.0 Statement of the problem

Poverty reduction strategies programs play a pivotal role in poverty eradication process in this world. For the long period of the rural areas are the most affected areas with the poverty compared to the urban areas. The reason behind it is because in the rural areas there is a low standard of living and life expectancy which impede the economic transformations as well. Therefore rural areas should be the ones that need the implementation of poverty reduction programs. By considering the role of EDPRS II the government provided EDPRS II as a key factor for economic transformations and economic development and the change could be realized by the present economy. The present study analyses the EDPRS II and Economic transformation. Besides, the study links the contribution of EDPRS II and economic transformation through different sectors. Given by this backdrop, the study interlinks three concepts viz... Poverty reduction in different sectors through transformation.

3.1 Methodology

This study is based on qualitative methods and secondary data, the data related to EDPRS II and economic transformations in Rwanda was collected from the World Bank staff (WB), International Monetary Fund (IMF), and various reports, internet and journals using simple calculation method analysis.

3.2 Data collection

The time series data covering the period of 2000-2016 the data has been for 15 years relating to EDPRS II and economic transformations in Rwanda. The Rwandan economic statistics were collected from World Bank Database. The data was collected from the International Monetary Bank (IMF)

3.3 Objective of the study

The purpose of the study is to find out the effects of which EDPRS II has contributed to the economic transformations of Rwanda, how EDPRS II can play an active role in the economic transformation.

1. To examine the impact of (EDPRS II) on economic transformations in Rwanda.
2. To suggest the policies related to the current situation if (EDPRS II) effects the economic transformations of Rwanda.
3. To determine how (EDPRS II) can attain Vision 2020 based on the economic transformations in Rwanda.

3.4 Delimitation

This study is aimed to determine only the contribution of (EDPRS II) to the economic transformations in Rwanda.

4.0 Study Area Profile

4.1 Rwanda, the Land of Thousand Hills and the Heart of Africa

Rwanda is a small landlocked country in East Africa. It is bordered by the Democratic Republic of Congo (DRC) to the West, Tanzania to West, Uganda to the North, and Burundi to the South. The 2012 Population and Housing Census put the population of Rwanda to 10.5 million residents, of which 52% are women. With the support of the International Monetary Fund (IMF) and the World Bank, Rwanda has been able to make important economic and structural reforms and sustain its economic growth rates over the last decade.

4.2 Geography

Rwanda, in East-Central Africa, is surrounded by the Democratic Republic of the Congo, Uganda, Tanzania, and Burundi. It is slightly smaller than Maryland. Steep mountains and deep valleys cover most of the country. Lake Kivu in the Northwest, at an altitude of 4,829 if (1,472 m), is the highest lake in Africa. Extending north of it are the Virungs Mountains, which include the volcano Karisimbi (14,187 ft: 4,324 m), being Rwanda's highest point.

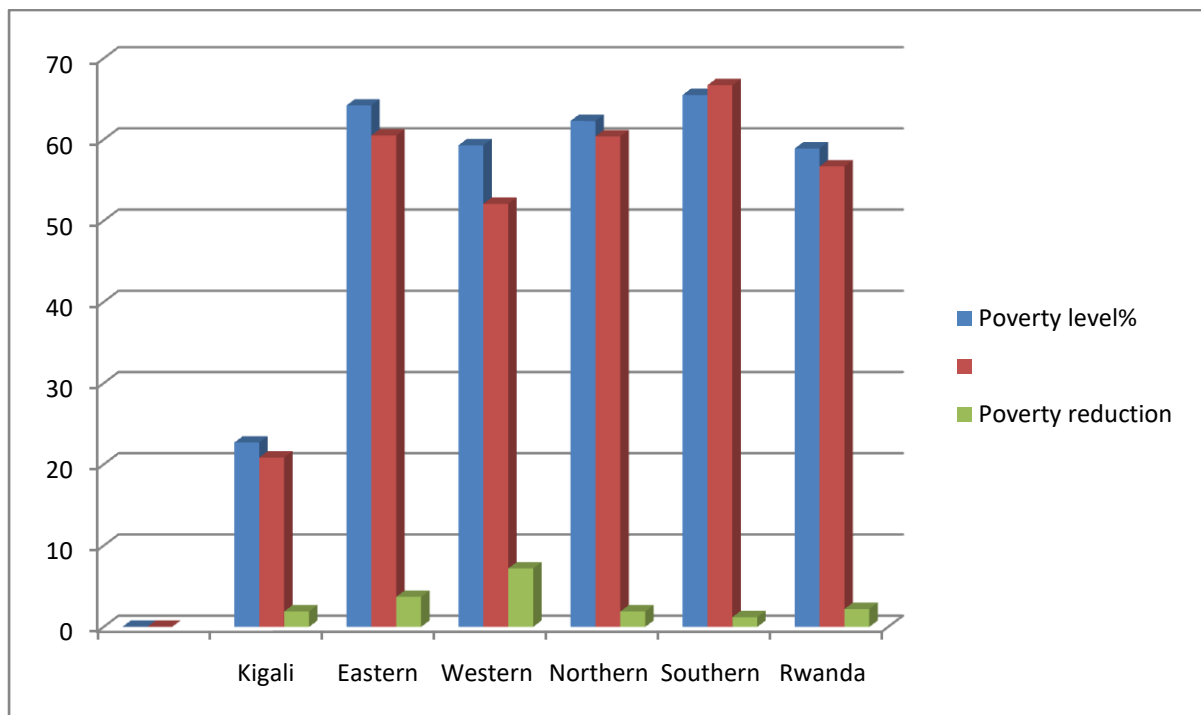
4.3 Population of Rwanda, 2015

As on 1st January 2016, the population of Rwanda was estimated to be 12,792,002 people. This indicates an increase of 2.79% (3,47,452 people) compared to the population strength of 12,44,550 the year before. In 2015, the natural increase was positive, as the number of births exceeded the number of deaths by 33,4261. Due to external migration, the population increased by 13,191. The sex ratio of the total population was 0.965 (965 males per 1000 females) which is lower than the global sex ratio. The global sex ratio in the world was approximately 1,016 males to 1000 females as of 2015. (Reference: map of the world by sex ratio of total population).

5.1 Analysis and Discussion

5.2 Impact of EDPRS 2 on poverty reduction:

Table-1. Rwanda poverty reduction trends province-wise for the period 2000-2006



Sources: Computed

We now know that a majority of the Rwandan population is classified as poor, but so far we have no information on the depth of poverty within the groups. The following Table-1, shows the poverty level (%) between the years from 2000-01 to 2005-06. The study shows that in Kigali province in 2000-01 the total percentage of poverty level was 22.7 but in 2005-06 the poverty level was reduced to 20.85. This means that there was a 1.9% reduction in the poverty level which was around 64.2% in 2000-01. But, in 2005-06 it remained at 60.5%

which means that there was a reduction of 3.7% in the poverty level. In the Western province in 2000-01 the total percentage of poverty level was around 59.9% but in 2005-06 the poverty level was reduced to 52.1%. This indicates that there was a huge reduction of around 7.2% in the poverty level between these years. In the Northern Province, the poverty level was 62.3% in 2000-01 but in 2005 -06 it remained at 60.4% which means that there is a reduction of 1.9% in the poverty level. In the Southern province of Rwanda, the level of poverty increased at the rate of 1.2% from 2001-01 to 2005-06. The study reveals that in the whole country of Rwanda there was a 2.2% reduction in the poverty level from 2000-01 to 2005-06.

Table-2. Rwanda poverty reduction trends province-wise from 2006-2011

S.No	Provinces	Poverty level %		Poverty reduction
		2006-07	2010-11	
1	Kigali	20.8	16.8	4
2	Eastern	60.5	42.8	17.7
3	Western	52.1	42.6	9.5
4	Northern	60.4	48.4	12
5	Southern	66.7	56.5	10.2
6	Rwanda)Total	56.7	44.9	11.8

Sources: Computed

Table-2 shows the poverty level (%) between 2006-07 to 2010-11. The study shows that in Kigali province in 2006-07 the total percentage of poverty level was 20.8% but in 2010-11 the poverty level reduced to 16.8%. This means that there is a 4% reduction in poverty level during this time frame. In the Eastern Province, the poverty level was 60.5% in 2006-07 but in 2010-11 it remained at 42.8% which means that there is a reduction of 17.7% in the poverty level. In western province in 2006-07 the total percentage of poverty level which was around 52.1%. But in 2010-11, the poverty level was reduced to 42.6%, this means that there is a huge reduction 9.5% in the poverty during this tenure. In the Northern Province, the poverty level was 60.4% in 2006-07. But in 2010-11, it remained at a level of 48.4% which means that there was a reduction of 12% in the poverty level. In the Southern Province of Rwanda, the level of poverty was reduced at the rate of 10.2% during 2006-07 to 2010-11. The study reveals that in whole country of Rwanda, there were 11.8% reductions in the poverty level during 2006-01 to 2010-11.

Table-3 Rwanda poverty reduction trends province-wise during 2000-2011

S.No	Provinces	Poverty reduction %	
		2000-06	2006-2011
1	Kigali	1.9	4
2	Eastern	3.7	17.7
3	Western	7.2	9.5
4	Northern	1.9	12
5	Southern	+1.2	10.2
	(Rwanda) Total	2.2	11.8

Sources: Computed

The Table-3 shows the details of the poverty reduction trends in the specified provinces before and after the implementation of EDPRS 2 in Rwanda. The study shows that in Kigali city before the implementation of EPDRS 2, the poverty reduction was 1.9% in 2006-07. But in 2010-11, after the implementation there was a 4% reduction in poverty level. In the Eastern province, before the implementation of this program, the poverty reduction was around 3.7% in 2006-07. But in 2010-11, after the implementation there was a 17.75% reduction in the poverty level and this shows the pathetic state and the level of poverty that existed among the provinces during the implementation of EDPRS 2. In the Western province, before the implementation, the poverty reduction was 7.2% in 2006-07. But in 2010-11, after the implementation of the program the reduction in poverty was around 9.5%. In the Northern Province, before the implementation of the program, the poverty was 1.9% in 2006-07. But in 2010-11, during the implementation period, the poverty level was reduced to 12%. Likewise, in the Southern province before implementation of the program, there was a 10% reduction. In general, across the whole country of Rwanda, before the implementation of EDPRS2 Program, the poverty reduction level was at 2.2% in 2006-07 and around 11.8% in 2010.

5.3 Impact of EDPRS2 for Rwandans based on job types

Table-4 Job trends before and after EDPRS2

S. No	Job type	Number of Jobs ('000)		
		2001-06	2006-11	-/+
1	Waged farm	209	138	-71
2	Waged non farm	184	370	186
3	Independent Farmer	-213	-2	-215
4	Independent non-farm	163	132	-31
5	Unpaid nonfarm and others	44	21	-23
	All working	437	661	224

Sources: Computed

The above table shows the trends of employment based on job type and the number of available jobs in ('000) under the period before EDPRS2 in 2001-06 and during EDPRS2, (2006-11).

The table-4 reveals that before EDPRS2, the number of jobs for waged farms was 2,09,000 thousand jobs(2001-06) whereas under the implementation of EDPRS2 program in (2006-11), the number of waged farms was 1,38,000 thousand jobs, which means that during EDPRS2, the number of waged farms was reduced to 71,000 thousand jobs. Before EDPRS2, the number of jobs waged nonfarm was around 1,84,000 thousand jobs in 2001-06. Thereafter, in EDPRS2 the number of jobs raised up to 3,70,000 thousand in 2006-11 which means that there was an increase of 186,000 thousand jobs after implementing the program. The independent farmer before the EDPRS2 program, the number of jobs were around 21,3000 thousand in 2001-06. Whereas in EDPRS2, the number of jobs was reduced up 2,000 thousand jobs which indicates that there is a reduction of 215,000 thousand jobs for independent farms after the implementation of the program. The independent non-farms before EDPRS2 program, the total number of jobs was 1,s63,000 thousand in 2001-06 and after the implementation of the EDPRS2 program, the number of jobs was 163,000 thousand in 2001-06. After EDPRS2 program implementation, the number of jobs was reduced to 132,000 which means that there was a reduction of 31,000 thousand jobs on independent non-farms after the implementation of the program in 2006-11. For unpaid non-farm and others before EDPRS2, the number of jobs was 44,000 thousand in 2001-06 and then after implementing the program, the number of jobs of unpaid nonfarm and others reduced to about 21,000 thousand which shows that there was a reduction of 23,000 jobs. Thus, the total of all working class before the implementation of the program was 437,000 thousand jobs and after implementation, it was 661,000 which means that there was an increase of 224,000 thousand more jobs. Therefore the implementation of EDPRS2 had relevant success in

providing jobs according to job types than the period before the implementation of this program.

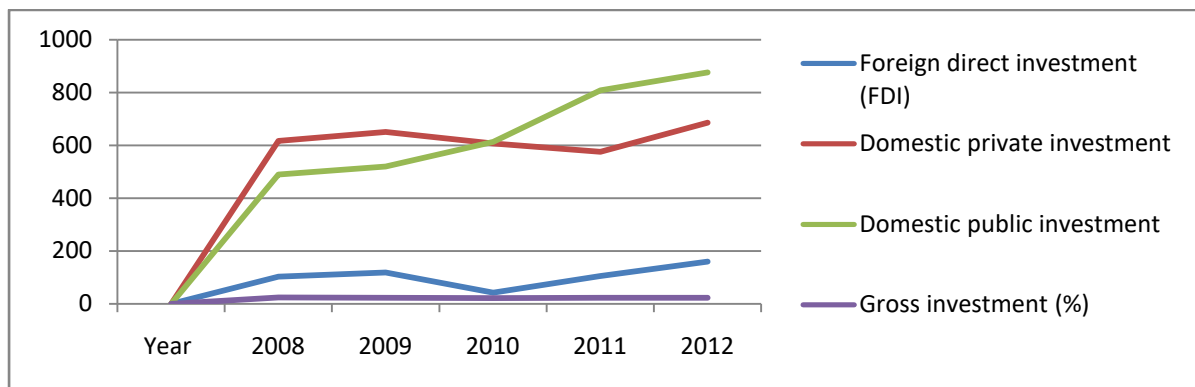
Table-5 Sector output and share of GDP (EDPRS II)

Sectors Year	Agriculture	Industry	Services	RW billions current prices
2008	32.6%	14.8%	52.8%	2600
2009	33.9%	14.4%	51.7%	2990
2010	32.3%	15.0%	52.8%	3300
2011	32.0%	16.3%	51.7%	3850
2012	33.0%	15.9%	51.1%	4300

Sources: Computed

After implementation of the development program EPDERS 2 there was a great variation in the output of the three sectors of Rwanda. The above Table 5 reveals that the share of outputs in the three economies from Rwanda (Billions GDP at current prices). In 2008, the output from agricultural sector was a share of 32% (i.e billions 2600 GDP at current prices) industry's share was around 14.8% of the GDP, services share was around 52.8% of the GDP at current prices. In 2009, output share from agriculture sector was about 33.9%, industry 14.4% and services 51.7% from the billions 2990 GDP at current prices. In 2010, the output share from agricultural sector was 32.3%, industry 15.0% and services 52.8% from the total GDP. In 2011, the output from agricultural sector was a share of 32.0%, industry 16.3% and services 51.7% of the total GDP. In 2012, the output from agricultural sector was a share of 33.0%, industry 15.9%, and services 51.1% from the total GDP. In general, the highest increment in the agricultural sector was seen in 2009 with a rate of 33.9%, the industry sector had an increased rate of 16.3% in 2011 and services had an increasing rate of 52.8% in 2008-10. The outputs from the service sector had a high rate of share among other sectors at 52.8% in 2008-10. Whereas, the industry took to the lowest rate among the sectors at 14.4% in 2009. During this year, a great improvement in output in service sector was witnessed. This means that there was a transformation in these sectors. In other countries, the economy transfers from primary sector (Agricultural) to Service sector. This transformation is only because of the implementation of this developmental program EPDERS 2.

Table-6. Domestic and foreign investment as a percentage of GDP



Source: Computed

Impact of EDPRS 2 on domestic and foreign direct investment as the percentage of GDP

The above table-6 shows the structural changes in Foreign Direct Investment (FDI), Domestic private investment and Domestic public investment with the Gross investment. In 2008, the foreign direct investment (FDI) was \$103m, domestic private investment (DPI) was \$617m, and domestic public investment was \$490 M, all with a gross Investment of 23.5%. In 2009, the FDI was \$65m, Domestic private investment 651\$ M, Domestic public investment 550\$m, with a gross investment of 22.3%. In 2010, the FDI was \$42m, Domestic private investment \$607m, Domestic public investment of \$613m, and the gross investment was around 21.7%. In 2011, the FDI was \$160m, domestic private investment 576\$m, domestic public investment \$808m, and the gross investment was around 22.1%. In 2012, the FDI was 160\$m, domestic private investment 686\$m, domestic public investment \$876m, and the gross investment was around 22.8%.

Therefore, the least FDI was in 2010 with \$42m, and the highest FDI was in 2012 with \$160m. The least domestic private investment was in 2011 with 576\$m, and the highest was in 2012 with 686\$m. The least domestic public investment was in 2009 with \$520m, and the highest was in 2012 with \$876m. The study shows that FDI shows a huge decrease trend in 2010, that is in 2009, the FDI was \$119 but in 2010, it fell to \$42 m, which indicates the reduction of \$77 m. This study shows that in 2010, the FDI was least but FDI was highest in 2012. On account of the implementation of this development program. It is thus clear that there was a great contribution by EPDERS 2 in the economic transformations in Rwanda.

Table-7. Infrastructure road development (transport sector strategy 2012)

Roads	Total length (km)	Good condition (%)
National paved roads	1,172	97.5
National unpaved road	1,688	39.0
Overall road (paved +unpaved)	2,860	63.3
District road	1,836	32.6

Source: ministry of infrastructure

We know that in Rwanda the road infrastructure plays a huge role in the development and economic transformations; that is why in EDPRS 2 development program, Rwanda made transport sector strategy in 2012. The table-7 above shows that the length of national paved path was 172km, with the rate of 97.5% of it being in good condition. The length of the national unpaved road was 1,688 km of the total path with the rate of 39.9% of it being in good condition. The overall road (paved + unpaved) was 2,860km of the total length with a rate of 63.3% of it being in good condition. The district roads was 1,836 km of the total length with the rate of 32.6% of it being in good condition. Therefore, it can be inferred that the number of the total length of national unpaved road is still higher than paved road though paved roads are better than unpaved roads. The overall roads that were paved and unpaved road have about 63.3% of it in good condition which means that level of good condition is higher than 50% and shows a good progress in the road infrastructure development though the distract roads were substandard owing to about 32.6%. This study shows that from 1,172 km of National paved roads about 97.7% on account of developmental program EPDERS 2. But in distract roads 67.4% were in bad condition which means that for development of these roads the program EPDERS 2 failed.

Table-8 Exports, imports and the current account (percentage of GDP)

S.No	Years	Exports	Imports	Trade	Current A/C, Balance
1	2013	18	35	-17	-12
2	2014	19	36	-18	-11
3	2015	22	38	-16	-11
4	2016	26	40	-13	-12
5	2017	27	40	-12.5	-10

Sources: Computed

Imports and exports are the determinants of the balance of trade of countries. It indicates whether the country is deficit or sufficient based on its imports and exports. When the balance of trade is beneficial, that means the exports is more than the imports and the

inverse is deficit. Therefore, Rwanda is recognized as the country where the imports are higher than the exports. The Table-8 above shows that in 2013, Rwanda's exports were 18, and imports 35, which shows that the level of exports were less than imports which implicates the deficit balance of trade of -17 and the current a/c balance of -12. In 2014, the Rwanda's exports were 19 and the imports 36 this means the level of exports were less than imports that is the deficit balance of trade of -19 and the current a/c balance of trade is -11. In 2015, Rwandan Exports were 22 and Imports 38 which means that there the exports were less than imports implying deficit of balance of trade of -16 and the current a/c balance of -11. In 2016, Rwandan Exports were 26 and Imports 40, revealing that the level of exports were less than the imports which means a deficit balance of trade of -13 and the current a/c balance was -12. In 2017, Rwandan Exports are expected to be 27 and Imports 40 so the balance of trade will be -12.5 and the current a/c balance of -10. Therefore, Rwanda is still based on imports instead of exports though the level of exports are consistently increasing year by year, the strategy has to rely on exports based techniques to reverse the situation.

Table-9 Government revenues as percentage of GDP

S.No	Year	Grants	Domestic revenues	Total revenues
1	2013/14	10.5	15.1	25.6
2	2014/15	10.8	15.4	26.6
3	2015/16	8.7	15.6	24.4
4	2016/17	7.4	15.9	23.3
5	2017/18	6.2	16.3	22.5

Source: Computed

After the implementation of EDPERS 2, there was a positive variation in the Government Revenues. The above Table-9 above shows details of the Government revenue during the period of EDPRS 2. Rwanda, like the other countries is reliant on grants and domestic revenues as a percentage of GDP. In 2013/14, in Rwanda, the level of grants received was 10.5% and domestic revenues was 15.1% and total revenues is 25.6%. In 2014/15, the level of grants received was 10.8 and domestic revenues was 15.4, that is the total revenues was around 26.2%. In 2015/16, the level of grants received was 8.7% and domestic revenues was 15.6% whereas the total revenues was around 24.4%. In 2016/17, Rwandan grants was 7.4% and the domestic revenues were 15.9% which makes it a total revenue of about 23.3%. In 2017/18, grants will be 6.2% and domestic revenues 16.3% which implicates a total revenue of about 22.5%. By analyzing it can be understood that during EDPRS 2 in 2013/14 and 1014/15 Rwanda had more total revenues than in 2015/16, 2016/17 and expected revenues in 2017/18. But, though the total revenues was dependant on huge grants,

the domestic revenues was higher. In 2017/18, the level of relying on grants will be low than the previous years and the domestic revenue will be increased too. This will be better for Rwanda because the reduction of grants will stimulate the domestic revenues.

6.1 Findings

- ❖ From the year 2000-06 the poverty reduction trends have showed that the total poverty had 2.2% of reduction and from 2006-11, the total poverty reduction was 11.8% and revealing the reduction of about 9.6%.
- ❖ Through all jobs types from 2001-06, the working were 437 and in 2006-11, all working were 66. Therefore it indicates an increase of 224 from 2001-11 time frame.
- ❖ The upward swing in the agricultural sector was in 2012 with a 33.0% increase in production.
- ❖ The upswing in the industrial sector was in 2011 with a 16.3% increase in production.
- ❖ The highest graph in the service sector was in 2008 with a 52.8% and 52.8% increase in 2010, highlighting that the service sector contributed more than the other sectors of economy.
- ❖ Higher foreign direct investment (FDI) was seen in 2012 at \$ millions 160 and the least was seen in 2010 at \$ millions 42.
- ❖ Higher domestic private investment was witnessed in 2012 with \$ millions 686 and the least was witnessed in 2011 with \$ millions 576.
- ❖ Higher domestic public investment was in 2012 with \$ millions 876 and the lowest in 2008 with \$ millions 490, indicating that the domestic public investment is greater than FDI and domestic private investment.
- ❖ The infrastructure road development the national unpaved roads cover around 39.9% of good condition whereas paved roads cover around 97.5% of good condition. Therefore, unpaved roads are more than paved roads in number. The district roads were substandard and contributed to about 132.6%.
- ❖ Balance of trade in 2017 and the level of exports is expected to be increased by around 27% and imports at 40%. But the balance of trade is expected to be on a deficit with around 12.5%.
- ❖ The government revenue for the year 2017/18, the level of grants are proposed to be reduced to about 6.2% and the domestic revenue will be increased to about 16.3% which means that the total revenue will be around 22.5%

6.2 Suggestions

- ❖ By the successful EDPRS II implementation and vision 2010, Rwanda would strengthen more on exports base than imports.
- ❖ Rwanda needs economists who are experts in economics to deal with the economic aspects in order to achieve consistent and sustainable economic transformations.
- ❖ For achieving the objectives of EDPRS II, it is better to make every Rwandan be aware of the understanding that the EDPRS II and vision 2010 is very essential for progressing in development.
- ❖ For attaining the EDPRS II development it is urgent and mandatory to eradicate the corruption.
- ❖ Innovations are necessary to contribute in the transformation of poverty which are more psychological and technical with their sharpened minds to finds new concepts.
- ❖ Rwanda needs more relationship with those developing and developed countries to acquire more knowledge in development process.
- ❖ The GENOCIDE IDEOLGY and aspects related to the CASTE: RACISM, HATRE have to be eradicated. Otherwise, the development aspects will be neutralized by the negative aspects of the above mentioned factors.

Conclusion

Based on the analysis it is revealed that EDPRS II has showed a positive impact on the economic transformation of Rwanda during its implementation. In the process of changing the poverty level, which was reduced year by year and the jobs through different forms have increased as a result though. The change in sectors of economy (agricultural, industrial, service). Sectors output shares GDP, domestic and foreign direct investment (FDI) have played a great role on the economic transformation in Rwanda and this shows progress of RWANDA IN TRANSFORMING ECONOMY. The infrastructures like roads development have progressed year by year but not at a satisfactory level which indicates that these road infrastructures still need more support to attain the expected level. The balance of trade is not yet at the expected level where the exports cover the imports, though there is an increase in the exports; the imports are still greater than the exports which means that Rwanda is still having a deficit balance of trade. In the arena of government revenue, it is not as the same as in the case of balance of trade. The domestic revenue is greater than the grants and the domestic revenue is increasing year by year. All these reflect obvious economic transformations in Rwanda.

Therefore, it is evident that Rwanda has made PROGRESS during EDPRS II but it is not 100% and EDPRS II is still in vogue, since it is a long-run development program plan for vision 2020. But, to get there the contribution of all Rwandans is very essential to attain as it has been planned, without which this may be a farcry.

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