IPAR Rwanda POLICY BRIEF 2015 No. 2



Analysis of Rwanda's Agriculture Budget Expenditure 2015-2016

Background

In Rwanda, the agriculture sector play an important role as it occupies approximately 72% of the active population especially women and contributes close to 33% of the national GDP, 70% of the country's export revenue and about 90% of national food needed (NISR, 2015). The sector stands enabler to poverty reduction, income generation, and ensures food security for a large part of the population.

The review of the PSTA II and the first Rwanda Comprehensive Africa Agriculture Development Program Compact (CAADP) shows that the agriculture sector has been responsible for almost 50% of the total poverty reduction of 12% points from 2008 to 2012; mainly explained by increased productivity gains (Austin, 2015).

Despite good progress observed in the past, there are yet some challenges affecting famers' crop productivity and hence their production. The study by Rwanda Civil Society Platform (RCSP) (2014) documents some of the challenges facing farmers. These include low access to finance and credits, low access to improved seeds and fertilizers.

With respect to the use of fertilizers, the Abuja declaration on fertilizers for an African Green Economy suggests 50kg/ha compared to 23kg/ha so far achieved in 2010 (RCSP, 2014). This constitutes part of reasons of the crop yield which ranges from 32% to 54% for the main crops under the Crop Intensification Program (MINAGRI, 2015).

Women are the most affected by the above challenges affecting the agriculture sector. The last FinScope report shows that about 67% of women are much more likely to be financially excluded than men (33%) (NISR, 2012). The same report substantiates that men have had access to formal credits than women. Despite the fact that women (58%) are more than men (42%) in the total

population; yet some structural challenges make them financially vulnerable (Randell and McCloskey, 2014).

The budget allocation to agriculture reflects the country's commitment to this very sector. The CAADP expenditure target of 10% budget allocation and 6% annual agriculture productivity growth remain with fluctuated targets. For example, in 2002 agricultural budget counted for 5.1%, in 2003 (3.9%). The GoR achieved the budget target of 10% in 2010/2011 and the agriculture budget stood at 10.2% and set the bar higher for growth in the agriculture sector from CAADP target of 6% to 8% /9% (Bizimana et al. 2012; Duke and Bizoza, 2012). During the period 2014 and 2015, the agriculture growth rate varied between 5% and 6% and it is projected to be 5.1% for 2016 (BNR, 2015). Therefore, the agricultural growth and other related achievements need to be sustainable over a long period to address food insecurity and poverty affecting the Rwandan population of which the majority is women smallholder farmers.

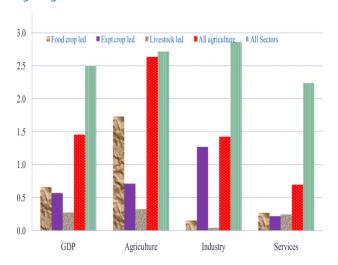
The overall objective of this policy brief is to give key highlights from a critical comparative analysis of 2015/2016 Annual Budget in order to identify the gaps and inform the public financing in the agriculture sector. Findings show also the extent to which the agriculture financing responds to CAADP budgetary targets as well as smallholder farmer's priorities.

Agriculture Growth and Economic Performance

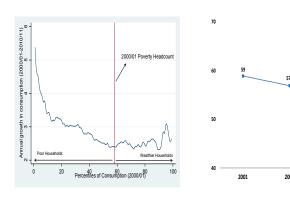
The real GDP growth was 7% in 2015 compared to 4.7% in 2013 and 7% in 2014 respectively. The projected GDP growth is 6.5% in 2016. Agriculture sector itself is expected to grow by 5.1%, Services (7.1%) and Industry by 6.2% (BNR, 2015). The same report sustains that the economic performance observed in 2015 was due to good performance in of the service sector (+7.0%) followed by agriculture sector (+6.0%) and industry sector (+4.0%).

It is clear from the above statistics that the contribution of agriculture in the overall economic performance is instrumental. The agriculture's share accounts from the performance of its subsectors namely the food crops sub-sector, the export of crops, and the livestock. The analysis by Diao (2015) shows how the food crop is the main sub-sector accounting for 80% of agricultural GDP with a stronger growth multiplier effect. Accordingly, a one percent annual growth in food crops generates 0.11 percent annual growth in the non-agricultural sector. The export growth contributes mainly to the increase of foreign exchange earnings, with modest contribution to the overall growth. More than 20% annual growth rate in export crops creates 0.71 percentage point additional growth in agricultural GDP and 0.57 percentage point additional growth in total GDP. The livestock, at 12% annual growth rate targeted by the government, it contributes to additional 0.32 percentage point annual growth to agricultural GDP and 0.27 percentage point to total GDP. If effects of all these sub-sectors are combined, additional 2.6 percentage point additional growth in agriculture create 0.9 percentage point additional growth in non-agricultural GDP. Therefore, achieving the targeted annual growth in agricultural GDP will require not only the increase in crop yields and livestock but also a shift to higher value products.

Fig 1: Agriculture Growth Scenarios



Ann. growth under alternative agriculture-led scenarios (Diao, 2015)

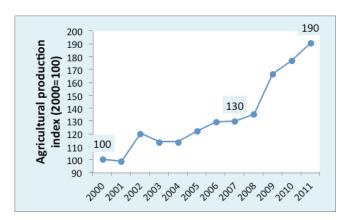


Annual growth in the consuption (Tom, 2015)

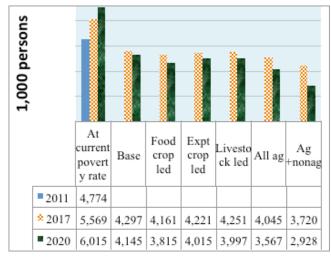


Furthermore, looking ahead the role of agriculture in Rwanda's future economic growth cannot be underestimated. More employment creation is likely to come from this very sector and hence the poverty reduction. The boom in agriculture production growth observed in the last decade is explained by a sharp in agricultural productivity since 2007/2008 through the Crop Intensification Program (CIP). The following figures depict significant links between agriculture growth and poverty reduction in Rwanda (Diao, 2015 and Tom, 2015). Therefore, if Rwanda is to continue reducing poverty and improving food security, investments in agriculture must increase as well.

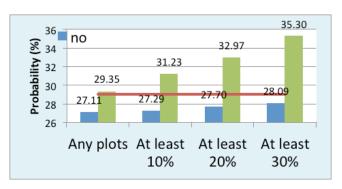
Fig 2: Agricultural Growth and Poverty Reduction



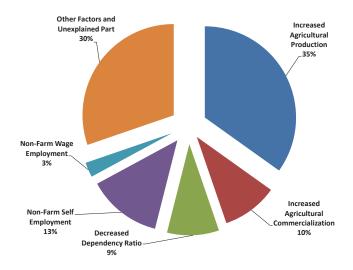
Boom in agriculture (Tom, 2015)



Number of the poor under alternative growth scenarios (Diao, 2015)



Agriculture and the likelihood of reducing poverty (Tom, 2015)



Contribution of various factors to poverty reductaion (Tom, 2015)

Analysis of Agriculture Budget and Public Expenditures

Budget by program and sub-sectors

Rwanda has its own internally generated drive for success in agriculture, which had already manifested itself being the first country in signing the CAADP compact. The commitment of Rwanda to the agriculture has a number of drives, reducing poverty and ensuring food security being the dominant. The budget allocation also shows the government's commitment to agricultural transformation. Thus, the government spending is very well aligned to agricultural priorities (PSTA) and to a great extent follows the approved budget and the CAADP targets.

The CAADP budgetary allocation target in agriculture is 10% of the national total budget annually. Since 2006 to 2013/2014 the percentage expenditure in agriculture varies between 9% and 13% fairly higher compared to the 10% target. The analysis of the budget allocated to agriculture provides the proportion of the budget allocated to this very sector and this seems necessary but not sufficient. The budget review in responding to both budgetary and growth targets under CAADP should focus rather more on the types of agriculture investments with greater likelihood to impact agricultural growth and reduce poverty reduction. Alternatively, out of the total budget allocated to agriculture the interest is rather to assess the trend in budget allocation according to agriculture sub-sector outcomes with the fundamentals of maximizing agriculture productivity, improving food security, and reduce poverty. Therefore, the sectorial priorities, targets, and policy actions form the basis for the budget allocation.

The funding of agriculture is mainly from the public and private sector spending plus donor commitments. Reference made to the Agriculture Sector Investment Plan (ASIP) (2013/2014-2017/2018) the total public sector cost for implementation is 1,213 USD million. Out of this total costs, agriculture and animal resource intensification takes the biggest share of 52.74% followed by the value chain development and private sector investment with the total budget share of 31.52%. Irrigation and water management counts 25.09% of the total budget planned for crop and animal resource intensification. The costbenefit analysis carried out in the context of the ASIP-2 shows that the total economic net benefits is negative from 2013 to 2018; positive returns on investments are expected beyond 2018 (see Figure 3). This calls for greater consideration in assessing its potential impacts in terms of food security and poverty reduction. The focus should continue to invest in agricultural staples. As already indicated, through linkages and multiplier effects, a 1 USD public spending in agricultural staples generates more than three times (3.63 USD) agricultural GDP and 0.21 USD of non-agricultural GDP.

Fig 3: Total Economic Net Benefits for ASIP-2 Public Spending

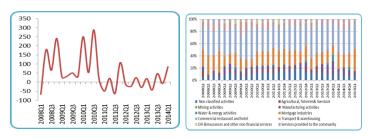


Source: Generated by the Author from ASIP -2 Public costs

Once these costs are assessed at Sup-programme level, the highest portion of the budget is allocated in the agriculture and animal resource intensification with about 71.5 % followed by 26.1% allocated to the value chain development and private sector development. The proportion of the budget allocated to research, technology transfer, advisory services and professionalization of farmers is relatively small about 1.2% of the total budget (see Figure 5). The relatively high investment made in the past in crop and animal intensification has resulted in great improvement in food availability which in turn is primarily explained by increased crop yields and area expansion (Byakweli and Mutebi, 2013).

Rwanda has prioritized the development of food crops through the crop intensification program and livestock development. A number of different programs have been launched for target crops under CIP and the livestock. Various investment scenarios, resulting from the signing of CAADP compacts, have shown that investment in staple crops and livestock development give better returns to the economy as whole while export crops tend to have higher returns on GDP growth (AU ECHO, 2014). Although agricultural growth is generally pro-poor, growth elasticities between staple crops (such as grains and roots) and agricultural exports indicate the importance of staples for poorer rural household (Diao et al 2014). The 6% CAADP agricultural growth target is reachable if the agriculture sub-sectors reach their growth targets. The simulation by Diao et al. (2014) gives the annual growth targets per agriculture sub-sector and their joint effects would result in an average agricultural GDP growth of 6.3% annually between 2007 and 2015. The 2015 annual projection of agricultural growth is 5.2% compared to 5% in 20014, slightly lower than the 6% target (BNR, 2015). Part of explanation for this slow and unstable agricultural growth rate could be the small proportion of agricultural loans (2%) of the total loans to private sector. The same report by BNR (2015) shows that the growth rate of loans to agriculture declined from 94% on average between 2009 and 2011 to 6% in the subsequent period (Figure 4).

Fig4: Evolution of New Agricultural Loans



Source: Financial stability Directorate, BNR (2015)

Budget as per CAADP Definition

The issue of what to count as Public Agriculture Expenditure (PAE) has continuously been debated since the Maputo declaration. Although the note issued by the African Union for the purpose of tracking PAE (AU/NEPAD 2005) provides general guidelines but the note allows also varying interpretations when it comes to what expenditure to count towards the Maputo declaration of 10% target regarding agriculture expenditures (Benin and Yu, 2013). Information provided in the following table (5) captures the public budget allocated to agriculture compare to national budget. These trends do not consider other funds injected by other development partners in the agriculture sector. The trends show that the proportion of the agriculture budget varies between 3.3% to 6.4%. For this particular fiscal year under analysis (2015/2016), the proportion of the agriculture budget compared to the total budget is 4.3%. There is a slight decline compared to 5.2% of the previous fiscal year 2014/2015.

Looking at the estimates in the table bellow, they result from the assumption of what the government commits the Ministry of Agriculture. But the spending in agriculture is beyond the direct government transfers to the ministry. There are also other partners involved in the sector and they also contribute in terms of the budget both at central level and at District levels. Therefore, all expenditures in the sector need to be accounted. The following Table (4) depicts the trends of public budgets for agriculture-related spending in Rwanda between 2009/10 and 2014/151 (in USD and in proportion to total public spending). The trend in agriculture spending compared to the national budget for the above period has remained low to the 10% CAADP target although it has been anticipated to be around 10% for the 2014/2015 fiscal year. Generally, the trend is not stable and is mostly downward to the CAADP 10% target of public spending in agriculture and this poses a development challenge if attaining food security and reduce poverty remains a goal especially for small scale farmers who are mostly in rural areas.

The Agriculture Sector Investment Plan (2013-2018) envisages four programs and their estimated budget shares. The first program is on agriculture and animal resource mobilization which counts 52.74% of the total planed budget, the research and technology transfer with 7.09% of the budget, the program on value chain development and private sector's investment with 31.52%, and the program on institutional development and cross cutting issues in agriculture with 8.65% of the total planned budget. The budget analysis should go beyond the estimates and show the extent to which the planned expenses impact farmers in terms of food security and poverty reduction as detailed in the next sub-section.

Table 1: Agriculture Budget as per CAADP Definition

| Fiscal Year | Ministry of Agriculture Budget in Millions | Total Budget in Millions | Agriculture Budget as % of Total Budget |
|----------------|---|--------------------------------|--|
| 2006 | 13.0 | 396.2 | 3.3% |
| 2007 | 17.8 | 526.0 | 3.4% |
| 2008 | 38.2 | 674.0 | 5.7% |
| 2009/10 | 57.1 | 899.0 | 6.4% |
| 2010/11 | 45.2 | 812.8 | 6% |
| 2011/12 | 67.6 | 1,116.9 | 6.1% |
| 2012/13 | 78.4 | 1,549.9 | 5.1% |
| 2013/14 | 83.0 | 1,653.5 | 5.0% |
| 2014/15 | 90.3 | 1,753.3 | 5.2% |
| 2015/16 | 78.4 | 1,815.2 | 4.3% |
| 2016/17 | 90.05 | 1,998.2 | 4.5% |
| | | | |

Source. Revised Finance Laws (2006-2015/16), adapted from Pamela (2014).

¹Not able to find the estimates for 2015/2016

Table 6: Public Spending in Agriculture as per Total National Budget

| Program / Sub-Program | FY 2009/10 | FY 2010/11 | FY 2011/12 | FY 2012/13 | FY 2013/14 | FY 2014/15 |
|--|---------------|--------------|---------------|---------------|---------------|---------------|
| Total Agriculture Budget | 133,888,349 | 154,726,982 | 211,702,418 | 217,937,643 | 223,687,839 | 257,118,462 |
| Total National Budget | 1,474,229,055 | 1,673,023,86 | 1,853,941,417 | 2,531,333,359 | 2,572,809,470 | 2,568,158,869 |
| Agriculture Budget in % of Total National Budget | 9.08% | 9.25% | 11.42% | 8.61% | 8.69% | 10.01% |

Smallholder Farmers, Food Security and Poverty Reduction

Access to Agricultural Inputs

The positive trends observed in the last decade in food crop productivity is mainly driven by increased use of inputs on consolidated and non consolidated land use, integrated crop management, irrigation, land husbandry and water management and extension services provision (Byakweli and Mutebi, 2014).

The current Seasonal Agricultural Survey (2015- Season A) shows yet some limitations in access to inputs by smallholder's farmers. From table (5) bellow it is clear that access to agricultural inputs remains a challenge to both smallholder farmers and large scale farmers as they still rely mainly on traditional agriculture practices. This has some implication in terms of crop production since crop intensification undertaken in Rwanda requires more use of improved seeds and fertilizers.

Table 2: Use of inputs by smallholder and large scale farmers

| Use of inputs | Small-scale farmers (%) | Large-scale farmers (%) |
|--------------------------|----------------------------|-------------------------|
| Improved seeds | 15.5 | 22.2 |
| Traditional seeds | 84.5 | 79.8 |
| Organic fertilizers | 51.3 | 66.8 |
| Chemical Fertilizers | 21.1 | 54.8 |
| Pesticides | 9.1 | 46.7 |
| Irrigation | 1.1 | 24.6 |
| Anti- erosion activities | 41.3 | 48.7 |
| | | |

Source: Agriculture Seasonal Survey (2015-Season A).

Access to Agricultural Credits

Rwanda's financial system remains dominated by the banking sector which represents 67.6% of the system's total assets. The microfinance has 5.6% and the non-banking financial institutions account for 26.7 (insurance 9.4% and pension 17.3%) (BNR, 2014). Despite the presence of sector-level Savings and Credit Cooperatives (SACCOs), they remain out of reach for a large part of the rural poor due to relatively high interest, the timing of loan repayments that is not consistent with the season harvesting, and the collateral required are still seen as a barriers to access agricultural loans. All these are happening in the era of financial inclusion. The financial inclusion is effective when people are able to use the financial products offered. The 2012 Fin Scope report shows that 72% of the adult population was financially included, leaving 28% financially excluded. Out of those excluded, the majority is from the rural areas where most of smallholder farmers reside and females when compared to males).

It is clear from the same report that 32. 2 of females are excluded and 57.5% are informally served. Although the financial inclusion is an emerging development subject; financial inclusion should be seen beyond having a financial institution and opening an account and focus more on the affordability and use of financial products and services which often requires one's financial capacity.

With respect to agricultural credit access, the EICV3 demonstrates that 7.9% have applied loans for agricultural improvements with 8.4% in rural area compared to 3.6% in urban area. About 90% of loan applications were approved. The main purposes of these agricultural loans are mainly meant to the purchase of seeds and fertilizers (49.8%) for both male and female farmers, animal purchase (14.2%), and purchase of land (13.7%) (See Table 3). Consistent with the Civil Society Platform report in Rwanda (2015), low access to financial services affects negatively farmer's investments in agricultural production. Further consideration is

needed with regard to the cost of the loan that is the interest rate which remains high, issue of collateral, and more bank products adapted to agricultural farming activities. In addition, the notion of financial inclusiveness currently under consideration should also consider the decentralization of financial services especially loans that are adapted to farmer's conditions in terms of returns from their investment and reimbursement measures.

Table (3). Agricultural Loans and the Purpose

| Purpose of the agricultural Loan | % of Male | % of Female | Total |
|----------------------------------|-----------|----------------|-------|
| Terracing | 0.4 | 0.3 | 0.3 |
| Irrigation | 0.3 | 0.6 | 0.4 |
| Animal Purchase | 14.1 | 14.6 | 14.2 |
| Equipment | 8.1 | 11.1 | 9 |
| Seeds & Fertilizer | 49.1 | 51.6 | 49.8 |
| Purchase of land | 14.5 | 11.5 | 13.7 |
| Farm buildings | 1.3 | 0.7 | 1.1 |
| Other | 12.2 | 9.5 | 11.4 |
| | | | |

Source. EICV 3- Gender Thematic Report, 2012.

Access to Extension Services

The current strategy for extension services and farmers mobilization aims at delivering an extension system that reaches all farmer categories. This is strategically done by the Ministry of Agriculture and implemented by its agencies (RAB and NAEB). The extension strategy is performed through policy guidelines, capacity development of extension workers, and technical backstopping. Now the focus is on the promotion of the farmer to farmer extension model comprising a number of extension platforms such as "Twigire Muhinzi" and Agriculture Advisors (ADAs) at village level.

The extension services tend to be more supply driven in Rwanda. Earlier findings postulate that 79.8% of farmers do not demand for extension services in Rwanda (Rwanda Civil Society Platform, 2015). This contradicts the current orientation reason why there is an understanding of the need of professionalization of farmers through reorientation incentives in agricultural extension, privatization and extension to cover business advisory services and marketing assistance. A number of sub-programmes have been identified to ensure research and technology transfer, advisory services and professionalization of farmers (MINAGRI, 2013). Considering the gender aspect, female are less represented in the extension schemes as extension officers at District and Cell levels as well as farmer promoters in the Agro-ecological zones.

Despite the fact that Farmer Promoters are very instrumental in the dissemination of extension services, agricultural good practices and technology innovations, women are not well represented in these platforms. This is likely to affect the ratio of women farmers receiving farming advice (GMO, 2015).

Yet, access to extension services remains a challenge for many farmers. One of the reasons is limited number of researchers compared to the total population. For example, in 2011 full time expert researchers per 100,000 farmers was estimated at 4 (Country STAT). Due to lack of sufficient resources, extension agents in Rwanda use both group and individual methods of extension in communicating new ideas to farmers. Current methods used to introduce new technologies/ ideas include arranging meetings at specified place and time through local leaders, through farmer promoters, setting up of Farmer Field School in villages and Field Exchange Visits (see Figure 9 above). In this context it is even very difficult to monitor the extent to which farmers have received the extension and advisory services and integrate these in their farming practices. Thus, this has some effects in terms of technology transfer to increase agricultural productivity. The study by the Civil Society Platform in Rwanda (2015) substantiates that about 76.1% of sampled farmers claimed low satisfaction of responses from the agriculture development advisors partly due to their limited knowledge in the farming practices.

The current estimate of the ratio of extensionnists to farmers is 1/7502 compared to 1/600 anticipated in the EDPRS2. The current estimate of the budget allocated to the programme 2- Research, technology Transfer, Advisory services and professionalization - is 7.09% of the total budget for the ASIP-2. Therefore, to optimise the effect of technology and new ideas transfer to farmers, the budget allocated to extensions needs to be revisited. This will allow more training of extensionnists for adequate dissemination of agricultural and marketing information.

Food Security and Poverty Reduction

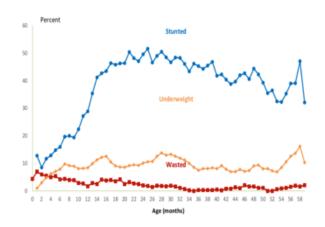
Agriculture remains a sector with greater potentials to reduced poverty and ensures food security. Food security encompasses four dimensions namely availability, access, utilization, and stability. Household food security is therefore defined as "sustainable access to safe food of sufficient quality and quantity to ensure adequate intake and a healthy life for all members of the family" (Musoni et al. 2015). Accordingly, Households are only food secure when food is both available and accessible-food must not only be in the market but people must be able to afford it.

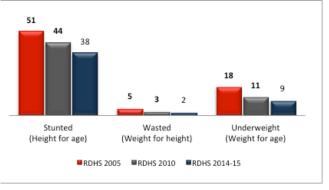
² RAB Estimate- from individual Consultation.

Since Rwanda embarked on CAADP objectives, food security and increasing rural household income remain key objectives of the national development strategies (see EDPR 1&2 and PSTA). The overall aim of these strategies is to raise agricultural productivity and ensure food security. PSTA I concentrated on the commercialization of agriculture, PSTAII concentrated on the intensification of agriculture, and PSTAIII is focusing on increased private sector participation and development (Duke and Bizoza, 2012). Rwanda was able to achieve food self-sufficiency since 2010 due to increased production of staple foods driven by the Crop Intensification Program (CIP) and stronger regional market integration.

The food supply has increased in the last decade although household food consumption remains a foundational issue where around 38% children being stunted in 2014 compared to 44% in 2010. The recent Comprehensive Food Security Vulnerability Analysis and Nutrition Survey (CFSVA, 2012) reported that 79% of all households had acceptable food consumption while 17% had borderline food Consumption and 4% had poor food consumption; this shows some greater achievements in this area. The remaining challenge to address is malnutrition among children bellow five years old and this has to deal with the access, utilization, and stability components of food security.

Fig 5: Malnutrition Status





Source: RDHS 2014-2015

Continued access by smallholder farmers to food depends also with their purchasing power that allows them to secure food through access to markets. The study by Bizoza and Ngabo (2014) in Nyabihu District substantiates the role of access to domestic markets in improving food security. Through done at small scale level, food security is also indirectly and significantly (1% to 10% level of confidence) influenced by the distance from farm gate to domestic markets, presence of physical markets (selling points), transport facilities and annual income. Therefore, more development and policy interventions towards food security and increase household income should mot focus on food production but also creating an enabling environment for market access. Consistent with the CFSVA (2012), the food insecure were typically poor, rural households, living in small crowded homes, depending on low income agriculture and casual labour.

Poverty is predominantly rural where close to ½ of rural population lives below the poverty line compared to 22% of the urban population (World Bank Group, 2015). The same Rwanda Poverty Assessment Report by the World Bank (2015) shows how the spatial dimension of poverty is closely linked to the rural-urban divide: outside the main urban agglomeration of Kigali Province, poverty is high (ranging from 43% in the Northern and Eastern Provinces to 57% in the Southern Province. As already above indicated, there is strong correlation between the development in agriculture and poverty reduction given that about 71% of the households in Rwanda draw their main occupation in Agriculture and this remains the main income earner.

Therefore, investment in agricultural sub-sectors has greater likelihood to impact food security and poverty reduction especially for the smallholder famers whose majority are women. The EICV 3 -2012) reports that almost 90% of female heads work in agriculture compared to 62% of male heads. Women are much less likely to have non-farm work opportunities as men making women highly concentrated in agriculture (82% compared to 61%). Looking at poverty status, 47% of female headed households are slightly more poor (47%) compare to 44.9% of all households (ECV3-2012). The above status supports greater linkages between agriculture, food security and poverty reduction – the two main to face to achieve the Vision 2020 and EDPRS goals. This calls for advanced engagement by policy makers, private sector, development partners, and smallholder farmers in agriculture development in Rwanda

Policy Recommendations

Looking at the current trends of economic development in Rwanda poverty remains a rural phenomenon where about 90% of the population below the poverty line (\$1.25) lives in the rural areas. Since the agriculture sector continues to be the main source of employment and income earner for the majority of the population and mostly smallholder farmers; the government should continue to increase the proportion of the budget allocated to investments in agriculture. Further consideration should be paid on the following:

- 1. The CAAD budgetary (10%) and agricultural growth (6%) targets are reachable if the agriculture sub-sectors reach their individual growth targets.
- The budget allocation between and within sectors need to be well customised to the knowledge of the poverty pulling factors and to the multiplier effects of each sector to reduce poverty and ensure food security among smallholder farmers.
- 3. A look at the Agriculture Sector Investment Plan for the period 2013/2014 to 2017/2017 the program on agriculture and animal resource intensification counts 52.74% of the budget of which 25.09% are for the irrigation and water management. Investments and maintenance of irrigation and mechanization structures are expensive beyond individual farmers' capacities. More investments will be needed and efficient management of the existing schemes for increased returns and benefits to the target population.
- 4. Strategies to reduce poverty and secure food security especially among smallholder farmers in Rwanda depend on agricultural productivity which in turn is determined by access levels on agricultural inputs, agricultural credits, and extension services. The current levels of input uses are still low (15.5% for improved seeds and 21.1% for chemical fertilizers) making the yield gaps remain high for major crops (between 35% to 54%). Thus, more investments are needed to achieve the crop intensification targets under EDPRS 2 and the PSTAIII.

- 5. Low access to financial services is evidenced and this affects negatively farmer's investments in agricultural production. Further consideration is needed with regard to the cost of the loan that is the interest rate which remains high, issue of collateral, and more bank products adapted to agricultural farming activities.
- 6. The development in agriculture will always depend on new agricultural technologies and extension packages. The relatively estimate of the budget for the ASIP (2013-2018) (7.09%) allocated to research, technology transfer, advisory services and professionalization of farmers is small to yield expected effects. More consideration on the budgetary allocation is needed.

Further Reading: This Policy Brief is drawn from the overall Report on "Annual Analysis of Rwanda's Agriculture Budget Expenditure 2015-2016" done by IPAR-Rwanda on Behalf of the Action Aid, Kigali, Rwanda. This can be accessed from IPAR's Website:

www.ipar-rwanda.org/publications

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