Feed the Future Innovation Lab for Livestock Systems

Rwanda:
Enabling Policies for Livestock Brief

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Acknowledgement

The Enabling Policy Brief was prepared by Dr. Bhawna Thapa, IFAS Global, and Olufemi Bolarinwa, PhD student, Department of Food and Resource Economics.

This Brief is a work in progress. It will be updated with additional information collected in the future.

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1. Introduction

The dependence of Rwanda’s economy on agriculture, both in terms of contribution towards gross domestic product (GDP; 33%) and proportion of the population (87%) employed in the agricultural sector (Mukanikomeje 2010), presents agriculture as one of the viable pathways to transforming Rwanda into a middle-income country. Agriculture is regarded as an essential tool in reducing the nation’s level of poverty, raising rural incomes, and stimulating progressive development in secondary sectors of the economy (ADF, 2011). The Government of Rwanda (GoR) has allocated significant resources to improve agricultural productivity, expand the livestock sector, promote sustainable land management, and develop supply chains and value-added activities. As a result, between 2002 and 2012, the agriculture sector grew an average of 5% per year, which although remarkable, is still below both the government’s objective of 8-9% annual growth and the Comprehensive Africa Agriculture Development Programme (CAADP)’ commitment of 6% growth (Giertz et al., 2015). During this period, the production of livestock products, such as milk and meat, has increased dramatically in part because of favorable government policies and programs, and in part because increased incomes have driven production and demand. This policy brief outlines the overall livestock subsector development strategies articulated in various national and sectoral policy documents.

2. Relevant Policies and Actors in the Livestock Sector

Framework policies

Agriculture-related development initiatives by the GoR include Vision 2020, Economic Development and Poverty Reduction Strategy (EDPRS), Strategy and Action Plan for Food Security, National Agricultural Policy (NAP), Strategic Plan for Agricultural Transformation (last phase of PSTA III), and Long-Term Framework for the Implementation of the CAADP in Rwanda.

- Vision 2020, the national vision and policy framework launched in 2000 by the GoR, sets the country on a course to become a middle-income country by the year 2020 (Musafili et al., 2015). With its contribution to GDP, the livestock sector supports each of the six pillars and three cross-cutting themes of Vision 2020, along with household nutrition through animal-source food consumption, among other contributions (MINAGRI, 2013a).
- The national vision is further laid out in the Second Economic Development and Poverty Reduction Strategy Paper (EDPRS II), which considers agriculture as a key sector for economic growth. EDPRS emphasizes intensification of sustainable production systems in crop cultivation and animal husbandry, building the technical and organizational capacity of farmers, promoting commodity chains and agribusiness, and strengthening the institutional framework of the agricultural sector at the national and local levels (RDB, 2016).
- Issued in early 2004, the NAP considered mixed crop and livestock farming as a national priority in all regions (MINAGRI, 2009a).
- PSTA III is a five-year program from 2013 to 2018 with two main objectives: 1) transform the agriculture sector to enhance food security and reduce poverty; and 2) expand the private sector role in production, processing, and value addition and commercialization of staple crops, export commodities, and livestock products (World Bank 2014).
- Other policies relevant to agricultural transformation in Rwanda include the National Rice Policy (NRP), Tea Strategy for Rwanda (2009-2012), Coffee Strategy for Rwanda (2009-2012), National Decentralization Policy (NDP), Decentralization Improvement Program (2000-2003, 2004-2008), National Land Policy (NLP), and Gender Equality Laws. The rural labor force is dominated by women, with women more likely than men to work in agriculture sector. With 92% of the female population workforce engaged in

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1 CAADP, developed under African Union auspices of the New Partnership for Africa’s Development (NEPAD), is the effort of African leaders that have pledged to support the transformation and development of agriculture sector in their countries.
agriculture, the government is committed to gender inclusion in policies and programs at all levels and has emphasized gender equity and equality as foundational and cross-cutting issues under EDPRS II, the PSTA III) and in the Agricultural Gender Strategy that began in 2010 (World Bank, 2014).

Other strategies designed to achieve a national agricultural transformation, as noted by Alinda and Abbott (2012), include the National Agricultural Extension Strategy (NAES) and the Agricultural Mechanization Strategy (AMS). NAES was established to create an optimal environment to promote exchange and dissemination of information among stakeholders in order to facilitate transformation and modernization of agriculture with the aim of achieving the Millennium Development Goals, Vision 2020, and EDPRS objectives. The AMS is a complementary strategy that focuses on mechanization along the value chain to ensure better quality, value, marketability, and profitability of farm products. Agricultural programs and initiatives that contribute to the realization of PSTA, EDPRS, and Vision 2020 include the Girinka program (One Cow per Poor Family), the Umururu Community Resource and Infrastructure Development Project (PDRCIU), Purchase for Progress initiative (P4P), Millennium Village Project, Livestock Infrastructure Support Program (LISP). In addition, extension workers and farmer field schools (FFSs) are focused on improving overall nutrition and reducing the vulnerability of rural households, in collaboration with MINAGRI, Ministry of Health (MINISANTE), Ministry of Education (MINEDUC), and the Ministry of Local Government (MINALOC; see Appendix A, Table 1). Figure 1 presents an overview of the Vision 2020/EDPRS pillars of development.

Figure 1. Vision 2020/EDPRS Pillars of Development

Source: Mukankomeje 2010

Livestock Sector Policies

- PSTA III: The PSTA III initiative has strong ties with the Vision 2020, EDPRS II, and the CAADP II via similar objectives, strategic impacts, and outcomes, as well as corresponding targets, and has a strong market orientation. Figure 2 illustrates the EDPRS and GoR 2017 production targets for some of the pertinent animal products. PSTA III has four strategic program areas: agriculture and animal resource intensification; research technology transfer, and organization of farmers; private sector-driven value chain development and expanded investments; and institutional results-focused development and agricultural crosscutting initiatives. Apart from the animal resource intensification program, the value chain development program has a subprogram that aims to double milk consumption over the course of five years through the “One cup of milk per child” program development of dairy market; quality improvement in the milk value chain, and continued coordination in the dairy subsector of the livestock industry. Also important in the program design is the incorporation of gender equity, such that women and men in the households have to append their signatures in order to receive the cow as a family asset. Appendix A, Table 2 shows the
total estimated cost for the PSTA III initiative for the five-year (2013-2018) duration of the program, while Table 3 shows the target results that PSTA III aims to achieve at the end of the program.

Figure 2. Production Targets for Animal Products by EDPRS and GoR

<table>
<thead>
<tr>
<th>Year</th>
<th>Milk</th>
<th>Meat</th>
<th>Fish</th>
<th>Eggs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production 2011</td>
<td>472,048</td>
<td>79,035</td>
<td>16,924</td>
<td>3,921</td>
</tr>
<tr>
<td>EDPRS targets 2012</td>
<td>302,130</td>
<td>98,000</td>
<td>14,965</td>
<td>3,583</td>
</tr>
<tr>
<td>2017 targets</td>
<td>730,133</td>
<td>410,808</td>
<td>112,000</td>
<td>6,300</td>
</tr>
</tbody>
</table>

Data Source: RAB 2013

The One-cow (Girinka) project is one of the projects under the animal resource development program of the PSTA initiative. Girinka began in 2006 and was initiated to reduce poverty and increase rural household income through livestock asset transfers (Argent et al., 2014). Since the inception of the program, 134,548 cows have been distributed among poor families while 40,352 cows obtained from offspring of the initial stock have been passed on to other poor families (MINAGRI, 2013b). Increase in milk production, higher household income, and reduction in the level of malnutrition through the “One cup of milk per child” school feeding program are some of the successes recorded so far in this program (World Bank, 2014). The success recorded thus far in the livestock industry has been attributed to decentralization policy, review of animal health laws, and strengthening of Rwanda’s veterinary profession (MINAGRI, 2012).

• National Dairy Strategy: The challenges facing the dairy subsector of the livestock industry, led to the advent of the National Dairy Strategy (NDS), which forms a roadmap for identification of potential constraints and possible solutions (MINAGRI, 2013a). The NDS 2013 adopted interventions that focus on both demand and supply sides in order to realize the ultimate goal of market orientation. The NDS indicates that despite high projected increases in the demand for milk, the production of milk will exceed consumption in the coming decade. As a result, NDS calls for milk exports to the neighboring countries. Figure 3 illustrates the market potential of the Rwandan dairy industry based on production and consumption data compiled by the NDS 2013.
In addition to the previous constraints related to the dairy subsector, the NDS also identifies other constraints that could prevent the dairy industry from realizing its full production and economic potential. Some of these constraints include the following:

**Market-enabling environment**
- Lack of regional competitiveness due to relatively high cost of dairy production compared to neighboring countries like Kenya and Uganda.
- Relatively high cost of marketing beyond the farm gate to domestic final consumers.
- Lack of market incentives to the dairy producers, as well as low level of profitability.
- Suboptimal consumption of dairy products by Rwandan consumers (which averages 40 liters/person/year); the new target is 80 liters/person/year by 2020.
- Lack of consumption of dairy products by a large proportion of the Rwandan populace; the East African Dairy Development reports that about one-third of Rwandans do not consume dairy products.
- Inadequate support to strengthen the Seal of Quality, testing and certification procedures across the value chain that are intended to symbolize good quality and safety standards for dairy products.
- Lack of an identifier system to track bull performance through progeny testing in order to improve future generations of dairy cows.

**Policy related**
- Lack of policies that encourage expansion of inputs and input services and foster market-oriented incentives for new entrants.
- Lack of appropriate dairy policies in this emerging subsector, as well as lack of private stakeholders who could organize to persuasively advocate for necessary government regulations and required investments.
- Inadequate public sector research geared towards improved dairy production systems.
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• Lack of favorable policies that strengthen regional trade.
• Lack of national animal feed policy and feeding strategies.

Infrastructure related
• Inadequate access to electricity, clean water, and a good road network that would facilitate easy, cost-effective transportation of dairy products.
• Inadequate milk chilling centers (MCCs) of appropriate size and operation in designated locations that could foster rapid collection of produced milk for transportation to bulk chilling centers and processors.
• Inadequate investments in the purchase of new processing equipment and technology that could facilitate product differentiation (through product development) and maintenance of standard sanitary operating procedure (SSOPs).

Knowledge related
• Inadequate support for training of dairy specialists at designated training centers.
• Inadequate feed supply and lack of technical skills in preparation of appropriate feed rations.
• Lack of information relating to modern dairy practices such as improvement in the areas of cow husbandry, animal health and genetics, and animal nutrition and feed sources.
• Inadequate investment in the area of training for product development and SSOPs.
• Lack of campaigns and advertisements that promote certified safe milk and benefits of its consumption as a way of expanding the current dairy products market.
• Inadequate promotion of branded Rwandan dairy products in regional markets, such Uganda, Burundi, and Democratic Republic of Congo.
## APPENDIX A: Tables

### Table 1. Institutional Roles and Responsibilities across Main Program Areas in Rwanda

<table>
<thead>
<tr>
<th>Program</th>
<th>Sub-Program</th>
<th>Strategic Areas</th>
<th>Lead Agency</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
</table>
| 1: Agriculture and Animal Resource Intensification | SP 1.6. Livestock Development      | SP 1.6.1. Improve milk quality, seasonality and productivity in line with the Dairy Strategy | Rwanda Agriculture Board (RAB)                  | • RAB and the MINAGRI Livestock unit will lead program  
• Districts will support training in milk handling and processing  

SP 1.6.2. Improved animal nutrition            | RAB                                | • RAB and MINAGRI Livestock unit will collaborate to assess animal nutrition and develop strategy to improve fodder production  
• RAB will conduct research into optimal feeding and fodder planting  

SP 1.6.3. Improved animal genetics in line with the 2012 Animal Genetics Improvement Strategy | RAB                                | • RAB will lead the program to conduct research around improved breeds and turn over Masaka bull station  
• RAB will collaborate with Districts to expand artificial insemination  

SP 1.6.4. Develop diversified small holder meat production in line with the 2012 Meat Industry Strategy | RAB                                | • RAB and MINAGRI Livestock unit will collaborate to drive animal resource intensification  
• Districts will support local production  

SP 1.6.5. Extension of the Girinka Program     | RAB/District                       | • RAB will provide support to Districts  
• Districts will distribute animals and provide training and monitoring  

SP 1.6.6. Strengthen the veterinary service network | RAB/District                       | • RAB will provide technical support  
• Districts will provide para-vets and animal health training  

SP 1.7. Nutrition and Household Vulnerability | SP 1.7.1. Develop a program of bio-fortified foods | RAB                                | • RAB will lead research  
• Districts will support education  
• Collaboration with MINASANTE  

SP 1.7.2. Develop a program of training in Kitchen Gardens | RAB                                | • RAB provides input and technical support  
• Districts support training and monitoring  

SP 1.7.3. Expansion of One Cup of Milk Per Child program | RAB                                | • RAB leads the program  
• Collaboration with MINASANTE and MINEDUC for sensitization campaign  

SP 1.7.4. Continue to maintain a national strategic food reserve | TF PHHS                            | • MINAGRI TF Post Harvest Handling and Storage manage the reserve  

SP 1.7.5. Strengthen Rwanda’s food security information system | CICA                               | • CICA and the Statistics unit will lead monitoring of food security information  

3: Value Chain Development and Private Sector Investment | SP 3.4. Development of Priority Value Chains: Dairy and Meat | SP 3.4.1. The dairy value chain | RAB                                | • RAB leads development of dairy products in collaboration with the Rwanda National Dairy Board, MCCs, MINAGRI livestock unit and private sector  

SP 3.4.2. The meat value chain | RAB                                | • RAB and MINAGRI Livestock unit will work with slaughterhouse agents, meat processors and other value chain actors  

4: Institutional Development and Agricultural Cross-cutting Issues | SP 4.1. Institutional Capacity Building | SP 4.1.1. Identify critical skills needs for Ministry staff | MINAGRI                              | • MINAGRI will lead the program in collaboration with SCBI  

SP 4.1.2. Develop staff incentives | MINAGRI                            | • MINAGRI will lead the program  

SP 4.1.3. Staff capacity building | MINAGRI                            | • MINAGRI will lead with DP support  

SP 4.1.4. Strengthen and improve coordination of the rural development group | MINAGRI                            | • MINAGRI will lead collaboration with rural development group actors, including MINICOM, MININFRA, MINIRENA, and others  

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Table 2. Projected PSTA III Expenditures in Rwanda for Time Period 2013-2018

<table>
<thead>
<tr>
<th>Program</th>
<th>US$ million</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Agriculture and animal resource intensification</td>
<td>628</td>
<td>52.3</td>
</tr>
<tr>
<td>(2) Research, technology transfer, and professionalization of farmers</td>
<td>86</td>
<td>7.2</td>
</tr>
<tr>
<td>(3) Value chain development and private sector investment</td>
<td>382</td>
<td>31.8</td>
</tr>
<tr>
<td>(4) Institutional development and agricultural cross-cutting issues</td>
<td>104</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,200</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: World Bank, 2014

Table 3. PSTA III Program Key Results for Rwanda with Baseline (2012/13) and Target (2017/18) Levels

<table>
<thead>
<tr>
<th>Results Indicators</th>
<th>Unit</th>
<th>Baseline (2012/13)</th>
<th>Target (2017/18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased average productivity levels of major food and export crops, and livestock commodity</td>
<td>t/ha kgs ltrs</td>
<td>Milk: 4 ltrs/cow/day</td>
<td>5.5</td>
</tr>
<tr>
<td>Increased total milk production</td>
<td>MT</td>
<td>503,000</td>
<td>724,000</td>
</tr>
<tr>
<td>Number of new technologies developed, released and adopted by farmers (with gender breakdown in adoption rates)</td>
<td>5</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Increased cooperatives/farmer organizations which are graded A and B5</td>
<td>5</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Increased value of major competitive value chains (total/exports)</td>
<td>US$</td>
<td>2.3 b/132 m</td>
<td>3.8 b/231 m</td>
</tr>
<tr>
<td>Increased private sector investments in agriculture sector</td>
<td>US$</td>
<td>513</td>
<td>1263</td>
</tr>
<tr>
<td>Rehabilitated, upgraded, and maintained rural feeder roads network</td>
<td>Kilometers (km)</td>
<td>14,374</td>
<td>25,061</td>
</tr>
<tr>
<td>Enhanced, results-focused institutional capacity of MINAGRI and Districts</td>
<td>Action plans</td>
<td>Partially working, Draft framework</td>
<td>Fully Operational</td>
</tr>
<tr>
<td>Enhanced and Gender Responsive Management Information System (MIS) Framework and Action Plan for Agriculture Sector completed, approved, initiated, and fully operational</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased women’s empowerment in agriculture index for Rwanda</td>
<td>%</td>
<td>91</td>
<td>96</td>
</tr>
<tr>
<td>Food Consumption Score (which measures adequacy of food consumption)</td>
<td>%</td>
<td>75%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Source: World Bank, 2014

1 Data source: Reports by Districts, aggregated by RAB, and NAEB; Data collection by MINAGRI RAB, NAEB
2 Increase of national daily average yields of milk per cow (liters) (using national average yield during 2012/13 season, considering an accurate estimation of the distribution of quality breeds of milk cows).
3 Data source: Reports by Districts and RAB; Data collection by MINAGRI RAB
4 Milk production refers to the total quantity of milk produced in a given period. Increase of national daily average yields of milk per cow (liters) (using national average yield during 2012/13 season, considering an accurate estimation of the distribution of quality breeds of milk cows).
References


