

Feed the Future Innovation Lab for Livestock Systems

Rwanda: Enabling Policies for Livestock Brief

May 2016

The Management Entity at the University of Florida

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.

This Brief is made possible with the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future Initiative. The contents in this brief are the responsibility of the University of Florida and do not necessarily reflect the views of USAID or the United States Government, and its partners in Feed the Future countries.

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 (Mukankomeje 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)¹ 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.

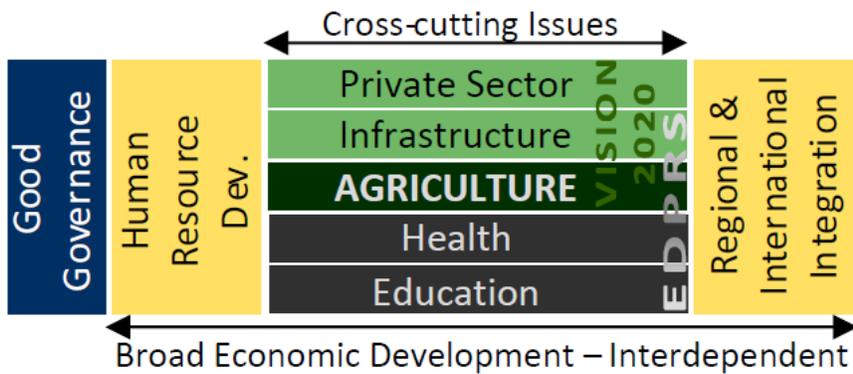
- Vision 2020, the national vision and policy framework launched in 2000 by the GoR, sets the country on a course to become a middle-income country by the year 2020 (Musafili et al., 2015). With its contribution to GDP, the livestock sector supports each of the six pillars and three cross-cutting themes 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

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 Umuturu 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



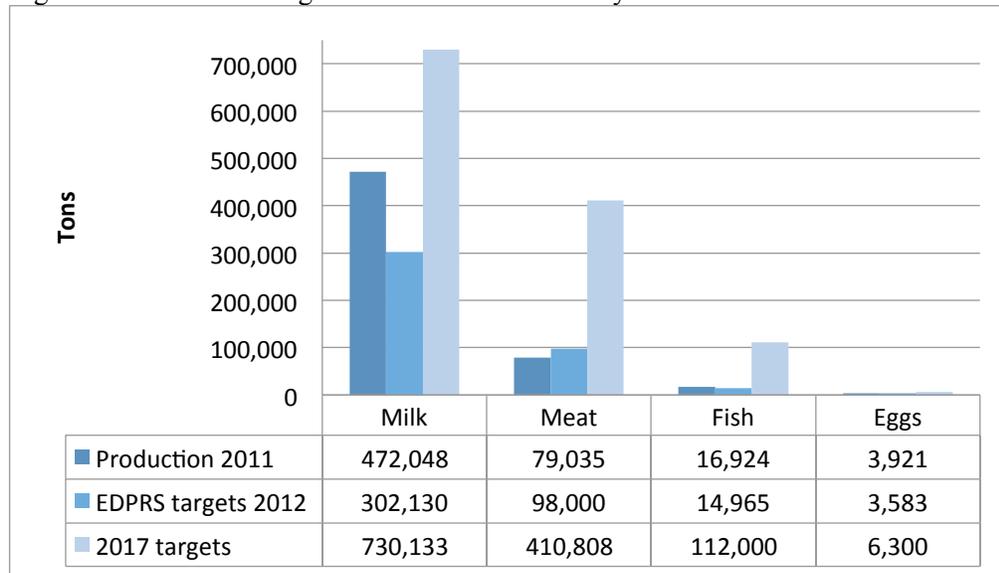
Source: Mukankomeje 2010

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

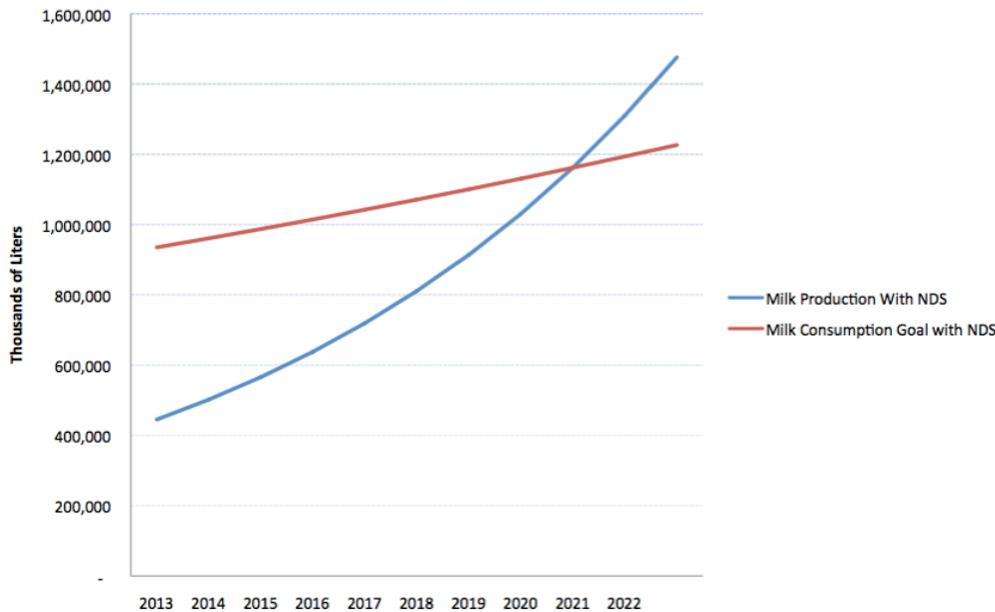


Data Source: RAB 2013

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.

Figure 3: Production and Consumption of Rwandan Products under the National Dairy Strategy (2013)



Source: RAB 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.

- 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 as Uganda, Burundi, and Democratic Republic of Congo.

APPENDIX A: Tables

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

Program	Sub-Program	Strategic Areas	Lead Agency	Roles and Responsibilities	
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)	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> RAB will lead research Districts will support education Collaboration with MINASANTE 	
		SP 1.7.2. Develop a program of training in Kitchen Gardens	RAB	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> MINAGRI TF Post Harvest Handling and Storage manage the reserve 	
		SP 1.7.5. Strengthen Rwanda's food security information system	CICA	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> MINAGRI will lead the program in collaboration with SCBI
SP 4.1.2. Develop staff incentives			MINAGRI	<ul style="list-style-type: none"> MINAGRI will lead the program 	
SP 4.1.3. Staff capacity building			MINAGRI	<ul style="list-style-type: none"> MINAGRI will lead with DP support 	
SP 4.1.4. Strengthen and improve coordination of the rural development group			MINAGRI	<ul style="list-style-type: none"> MINAGRI will lead collaboration with rural development group actors, including MINICOM, MININFRA, MINIRENA, and others 	

SP 4.5. Gender and Youth in Agriculture	SP 4.5.1. Institutionalize gender equality in sector entities	MINAGRI	<ul style="list-style-type: none"> MINAGRI will lead gender mainstreaming sensitization across all sector actors
	SP 4.5.2. Develop capacities for gender sensitive programming	MINAGRI	<ul style="list-style-type: none"> MINAGRI will lead sensitization of staff Districts will support extension work
	SP 4.5.3. Enhance gender responsiveness in agricultural service delivery	MINAGRI	<ul style="list-style-type: none"> MINAGRI will work with RAB, NAEB, Districts and DPs to raise awareness of gender in program implementation
	SP 4.5.4. Strengthen gender focused partnerships	MINAGRI	<ul style="list-style-type: none"> MINAGRI will develop partnerships with MIGEPROF, gender based DP's and others
	SP 4.5.5. Develop a TVET curriculum for ag specializations	MINAGRI	<ul style="list-style-type: none"> MINAGRI will collaborate with TVET and youth training centers
	SP 4.5.6. Target youth in entrepreneurship programs	MINAGRI	<ul style="list-style-type: none"> MINAGRI will target youth in funding and training opportunities
	SP 4.5.7. Develop an agricultural leadership program for youth	MINAGRI	<ul style="list-style-type: none"> MINAGRI will lead the program

Source: MINAGRI, 2013

ACRONYMS: Ministry of Agriculture and Animal Resources (MINAGRI), Ministry of Health (MINISANTE), Ministry of Education (MINEDUC), Agricultural Information and Communication Centre (CICA), The Ministry of Trade and Industry (MINICOM), The Ministry of Infrastructure (MININFRA), Ministry of Natural Resources (MINIRENA), National Agricultural Export Development Board (NAEB), Ministry of Gender and Family Promotion (MIGEPROF), Technical and Vocational Education and Training (TVET)

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

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

Source: World Bank, 2014

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

Results Indicators	Unit	Baseline (2012/13)	Target (2017/18)
Increased average productivity levels of major food and export crops, and livestock commodity ¹	t/ha kgs ltrs	Milk: 4 ltrs/cow/day ²	5.5
Increased total milk production ^{3,4}	MT	503,000	724,000
Number of new technologies developed, released and adopted by farmers (with gender breakdown in adoption rates)		5	17
Increased cooperatives/farmer organizations which are graded A and B5		5	32
Increased value of major competitive value chains (total/exports)	US\$	2.3 b/132 m	3.8 b/231 m
Increased private sector investments in agriculture sector	US\$	513	1263
Rehabilitated, upgraded, and maintained rural feeder roads network	Kilometers (km)	14,374	25,061
Enhanced, results-focused institutional capacity of MINAGRI and Districts		Action plans	Fully Operational
Enhanced and Gender Responsive Management Information System (MIS) Framework and Action Plan for Agriculture Sector completed, approved, initiated, and fully operational		Partially working, Draft framework	Fully Operational
Increased women's empowerment in agriculture index for Rwanda	%	91	96
Food Consumption Score (which measures adequacy of food consumption)	%	75%	90%

Source: World Bank, 2014

¹Data source: Reports by Districts, aggregated by RAB, and NAEB; Data collection by MINAGRI RAB, NAEB

²Increase 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).

³Data source: Reports by Districts and RAB; Data collection by MINAGRI RAB

⁴Milk production refers to the total quantity of milk produced in 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

- African Development Fund (ADF). 2011. Livestock infrastructure support program (sector budget support) Rwanda. http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Rwanda_-_AR_-_Sector_Budget_Support_.pdf
- Alinda, F. and Abbott, P. 2012. Agricultural policy and institutional framework for transformation of agriculture, economic development and poverty reduction in Rwanda. <https://www.africaportal.org/dspace/articles/agricultural-policy-and-institutional-framework-transformation-agriculture-economic>
- Argent, J., Augsburg, B. and Rasul, I. 2014. Livestock asset transfers with and without training: Evidence from Rwanda. *Journal of Economic Behavior & Organization*. 108:19-39. <http://www.ucl.ac.uk/~uctpimr/research/Girinka.pdf>
- Giertz, A., Mudahar, M., Gay, G., Rubaiza, R., Galperin, D., and Suit, K. 2015. Rwanda Agricultural Sector Risk Assessment. Agriculture Global Practice Technical Assistance Paper. World Bank Group Report Number 96290-RW, October 2015. <http://documents.worldbank.org/curated/en/2015/10/25218799/rwanda-agricultural-sector-risk-assessment>
- Otte, J., Costales, A., Dijkman, J., Pica-Ciamarra, U., Robinson, T., Ahuja, V., Ly, C. and Roland-Holst, D. 2012. Livestock sector development for poverty reduction: an economic and policy perspective. Livestock's many virtues. Food and Agriculture Organization of the United Nations (FAO). <http://www.fao.org/docrep/015/i2744e/i2744e00.pdf>
- MINAGRI (Ministry of Agriculture and Animal Resources). 2009a. Updating the master plan of the milk chain in Rwanda. Ministry of Agriculture and Animal Resources (MINAGRI). http://www.minagri.gov.rw/fileadmin/user_upload/documents/STRAT.PLC/Milk_Master_Plan.pdf
- MINAGRI (Ministry of Agriculture and Animal Resources). 2009b. Strategic Plan for the transformation of Agriculture in Rwanda – Phase II (PSTA II), Republic of Rwanda, Ministry of Agriculture and Animal Resources: Kigali. Ministry of Agriculture and Animal Resources (MINAGRI). https://www.gafspfund.org/sites/gafspfund.org/files/Documents/Rwanda_StrategicPlan.pdf
- MINAGRI (Ministry of Agriculture and Animal Resources). 2012. Strategic and Investment plan to strengthen meat industry in Rwanda. Ministry of Agriculture and Animal Resources (MINAGRI). http://www.minagri.gov.rw/fileadmin/user_upload/documents/STRAT.PLC/Final_report_Rwanda_Meat_industry_final.pdf
- MINAGRI (Ministry of Agriculture and Animal Resources). 2013a. Rwanda National Dairy Strategy, Government of Rwanda, Kigali. Ministry of Agriculture and Animal Resources (MINAGRI). http://www.minagri.gov.rw/fileadmin/user_upload/documents/STRAT.PLC/2013_National_Dairy_Strategy.pdf
- MINAGRI (Ministry of Agriculture and Animal Resources). 2013b. Strategic plan for the transformation of agriculture in Rwanda Phase III. Ministry of Agriculture and Animal Resources (MINAGRI). <https://www.usaid.gov/sites/default/files/documents/1860/Strategic%20Plan%20for%20the%20Transformation%20of%20Agriculture%20in%20Rwanda,%20Phase%20III.pdf>

- MINAGRI (Ministry of Agriculture and Animal Resources). 2014. Strategic Plan for the transformation of Agriculture in Rwanda – Phase III (PSTA III), Republic of Rwanda, Ministry of Agriculture and Animal Resources: Kigali. Ministry of Agriculture and Animal Resources (MINAGRI).
- Mukankomeje, R. 2010. Environmental Mainstreaming in Rwanda. Policy Briefing 2: Agriculture and development REMA in partnership with MINECOFIN.
http://www.unpei.org/sites/default/files/e_library_documents/Rwanda-PolicyBriefing3EconomicGrowth.pdf
- Musafili, A., Essén, B., Baribwira, C., Binagwaho, A., Persson, L.Å. and Selling, K.E. 2015. Trends and social differentials in child mortality in Rwanda 1990–2010: results from three demographic and health surveys. *Journal of Epidemiology and Community Health*. 69(9):834-840. doi:10.1136/jech-2014-204657
- RAB (Rwanda Agricultural Board). 2013. Rwanda Agricultural Sector and its Impact on Food Security and Economy. <http://www.institutions-africa.org/filestream/20130725-presentation-rwanda-agricultural-sector-and-its-impact-on-food-security-and-economy>
- RAB (Rwanda Agricultural Board). 2016. Key actions for agricultural growth. Rwanda Development Board. <http://www.rdb.rw/departments/agriculture.html> (Accessed 01 February 1 2016.)
- World Bank. 2014. Transformation of Agriculture sector program phase III program-for-results. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/10/16/000442464_20141016100956/Rendered/PDF/899840PAD0P148010Box385332B00OUO090.pdf