



Rwanda Country Strategic Review of Food and Nutrition Security

Ministry of Gender and Family Promotion
Kigali, June 2018



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FOREWORD

It is with great pleasure that I present this report on the **Country Strategic Review of Food and Nutrition Security in Rwanda**. With the Government of Rwanda embracing the Global 2030 Agenda and striving towards achieving the Sustainable Development Goals, as well as the Malabo Declaration to end hunger in Africa by 2025, this Strategic Review is extremely timely – providing an excellent framework analysis on SDG 2 - “Zero Hunger”. This report offers concrete recommendations for addressing the gaps and challenges through a collaborative and inclusive approach to meet the important national targets for food and nutrition security.

As detailed in the *National Strategy for Transformation (NST1)*, human development is at the forefront of the Government’s national development frameworks and strategic plans. I am confident this report will be leveraged to inform and support national policy and program formulation in the area of food and nutrition security, as well as in related sectors – as comprehensive and coordinated cross-sectoral efforts will ensure effective progress in achieving SDG2 to ‘*end hunger, achieve food security and improved nutrition, and promote sustainable agriculture*’.

I take this opportunity to thank the research team and all stakeholders involved in the development of this Strategic Review. I also extend my sincere appreciation to the World Food Programme for its support in realizing this important exercise.

I call upon all stakeholders to engage with us towards a coordinated and collaborated approach to achieve the common goal of a food and nutrition secure nation.


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Key Definitions

Food Security: Food security is a situation that exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

Household Food Security: At the household level, food security indicates that a household has the ability to secure enough food to meet the dietary needs of all household members. Both long-term and seasonal household food insecurity can negatively affect the health of family members; particularly women and young children.

Nutrition Security: Nutrition security means access by all people at all times to the adequate utilization and absorption of nutrients in food, in order to be able to live a healthy and active life.

Child Stunting: Child stunting or chronic malnutrition, refers to a lower rate of growth in human development. It is a condition defined as height for age below the fifth percentile on the World Health Organization's (WHO) standard reference growth curve. Chronic malnutrition occurs over time, unlike acute malnutrition. Stunting starts before birth and is caused by several factors including poor maternal nutrition, poor feeding practices, poor food quality as well as frequent infections which can slow down a child's growth rate.

Child Wasting: Child wasting, also known as acute malnutrition, is a condition characterized by a rapid deterioration in nutritional status over a short period of time. In children, acute malnutrition can be measured using the weight-for-height nutritional index or mid-upper arm circumference. Acute malnutrition is caused by a decrease in food consumption and/or illness resulting in sudden weight loss.

Underweight: Underweight refers to a low weight for age in children and a BMI of less than 18.5 in adults. It reflects a current condition resulting from inadequate food intake, past episodes of undernutrition or poor health conditions.

Anaemia: Anaemia is a condition that arises due to reduced haemoglobin levels or red blood cells, resulting in the inability of the body to supply oxygen to its tissues. Anaemia is caused by inadequate intake and/or poor absorption of iron, folate, vitamin B12 and other nutrients. This condition can also be caused by infectious diseases such as malaria, hookworm infestation, schistosomiasis, and various genetic diseases.

Undernutrition: Undernutrition can result from undernourishment, poor absorption, or poor biological use of nutrients consumed as a result of repeated infectious disease. This condition includes being underweight for one's age, too short for one's age (stunted), dangerously thin for one's height (wasted), and deficient in vitamins and minerals (micronutrient malnutrition).

Social Protection: Social protection consists of policies and programs designed to reduce poverty and vulnerability by promoting efficient labour markets, diminishing people's exposure to risks, and enhancing their capacity to manage economic and social risks.

Executive Summary

During the last decade, the Government of Rwanda (“the Government”) made commendable progress in the areas of poverty reduction, food and nutrition security (FNS), gender promotion, improved access to health services, and the protection and management of the environment and natural resources. Building on the momentum of the Millennium Development Goals (MDGs), Rwanda is well-positioned to swiftly engage in the domestication and realization of the objectives and targets of the 2030 Agenda and the Sustainable Development Goals (SDGs). To this end, through collaboration with its development partners (DPs), the Government has embarked on the process of integrating the SDGs into its national development frameworks, namely, *Vision 2020*, the *Economic Development and Poverty Reduction Strategy* (EDPRS), the *National Strategy for Transformation*, and Sector Strategic Plans. To date, Rwanda has already identified the country’s priorities in terms of SDG indicators and targets towards the achievement of the 2030 development agenda (65 out of 240 indicators are relevant to FNS and will be monitored through agriculture, health, social protection, water and sanitation, and disaster management sectors). Similarly, the upcoming *2018-2023 United Nations Development Assistance Plan* (UNDAP), which is being developed in partnership with the Government, embraces the SDGs and is also aligned with the national development agenda.

Food and nutrition security is particularly linked to SDG 2: “End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.” On a continental level, the commitment is reiterated under the 2014 Malabo Declaration to “End hunger in Africa”, which stipulates that African countries must end malnutrition in all its forms by 2025. To further facilitate the localization of SDGs, the Government has undertaken this *Rwanda Country Strategic Review of Food and Nutrition Security* (Strategic Review) to accelerate progress toward achieving national and global FNS goals. This Strategic Review is expected to provide the current status of FNS, identify gaps in the national policy and programming response, and give recommendations to inform the ongoing strategic planning processes. Specific objectives of the Strategic Review are:

- (i) to establish a comprehensive and detailed status of food and nutrition security;
- (ii) to conduct a review of existing food and nutrition security related strategies, policies, plans and programs, and to identify policy and strategic response gaps;
- (iii) to provide an overview of potential measures and mechanisms of priority areas designed to accelerate progress towards achieving FNS targets.

The Strategic Review is based on a comprehensive and holistic content analysis of all existing and relevant policies, strategies, programmes, surveys, and studies on FNS. The Strategic Review is also informed by data collected from consultations and feedback collected from various stakeholders within the public and private sectors, including UN agencies, bilateral and multilateral partners, Civil Society Organizations (CSOs), DPs, international and national Non-Government Organizations (NGOs), and research and development organizations among others. It is worth noting that the Strategic Review does not include an impact assessment of previous programmes and policies on FNS. An Advisory Group was established to provide overall guidance, inputs and comments towards this Strategic Review.

Food and nutrition security situation analysis

Country context

Rwanda is a land-locked country with more than 11 million inhabitants and a population density of 448 persons per km². The majority of Rwandans (84%) live in rural areas; although the country’s urban population is growing faster than many other African countries. Rwanda’s population is generally young, with 43.4% of all Rwandans under the age of 15. Over the last decade, the country registered an annual economic growth rate of approximately 8% while poverty reduced overall by 5.8% with extreme poverty reducing by 7.8% between 2010 and 2014. The agriculture sector continues to dominate the

domestic production landscape contributing to 33% of the total Gross Domestic Product (GDP). National economic growth is projected to continue increasing based on a stable macro-economic framework and the implementation of priority policies, including those in the agriculture sector.

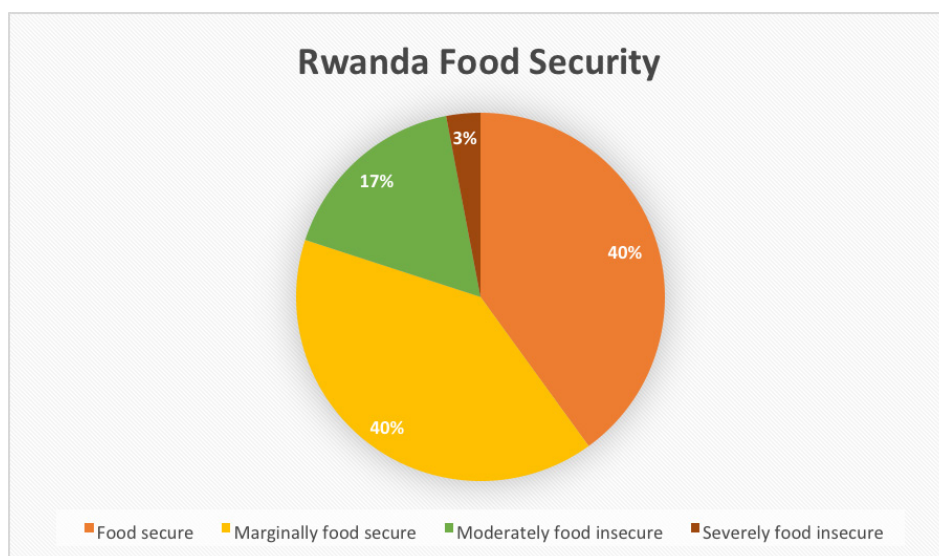
Rwanda's development model is becoming increasingly inclusive. Income and wealth inequalities have reduced through various programmes in the finance, education, health, agriculture, and land reform sectors. Particular to FNS, the Government has implemented several home-grown initiatives aimed at boosting poverty alleviation, providing a social safety-nets and improving the status of FNS among its citizens. These include: Vision 2020 *Umurenge* Programme (VUP), the One Cow per Poor Family Programme (*Girinka*), Land Use Consolidation, and the Community Health Insurance Scheme (*Mutuelle de Sante*). Women have been empowered through the achievement of equal rights to inheritance in all aspects of acquisition, registration and management of land assets; a situation that contributes directly to ensuring food security at the household level in the Rwandan context. Rwanda has also instituted accountability mechanisms to ensure the proper management of interventions benefitting households in the poorest economic categories.

Food and nutrition security situation and SDG 2

The *National Food and Nutrition Policy* (NFNP, 2103-2018) states that food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. The four pillars of food security (availability, accessibility, utilization and stability) are analyzed against both national and SDG 2 targets.

Food availability

Food availability is clearly reflected in SDG targets 2.1, 2.3, 2.4, and 2.5 which articulate the need to ensure sufficient food, increased productivity, resilient agricultural practices, and improved and diversified genetic seeds.



The Strategic Review revealed that 40% of the population are food secure, 40% are marginally food secure, 17% are moderately food insecure and 3% are severely food insecure. In general, Rwanda's food basket is primarily dominated by tuber and root crops (37.3%), bananas (27.6%) and cereals (11%). Legume and pulse crops (7.6%), as well as vegetables and fruits (4.7%), represent a smaller proportion. Currently, average energy consumption measures 2,754 Kcal/per capita/day, while the availability of protein and lipids is estimated at 69 and 31 g/per capita/day, respectively. To date,

food imports represent a substantial proportion of Rwanda's food balance sheet. One of the major constraints to domestic food production is low productivity gains for smallholder farmers. For example, despite an increase observed during the implementation of the Crop Intensification Program (CIP), gaps between on-farm yields and those attainable at research stations remain significant in most CIP priority crops. Low crop and animal productivity levels have negative implications for the food security of Rwandan households, especially small landholders and those who depend on their own food production for subsistence.

To reverse the situation, the Government, with the support of its partners, has been implementing a number of flagship programs focused on supporting the increased productivity of smallholder farmers' in crop and livestock sub-sectors. These priority sub-sectors include CIP, soil conservation and land husbandry, irrigation development, subsidized farm input distribution (fertilizer and seeds), proximity extension services, animal genetic improvement, Girinka, poultry, aquaculture and small stocks development.

Food accessibility

Food accessibility is addressed in the SDG targets 2.1 and 2.c and involves ensuring food accessibility for all, the proper functioning of food commodity markets, and the facilitation of timely access to market information including knowledge of food reserves, in order to help limit the extreme price volatility of food.

The Strategic Review showed that food access in Rwanda is mainly determined by seasonal patterns, commodity prices and people's purchasing power. Many Rwandans continue to face difficulties in accessing adequate amounts of food at some point of the year, especially during lean seasons. These periods are generally coupled with an increase in food prices which in turn lead to food inflation, thus reducing a household's purchasing power. Other factors such as the limited physical access to markets, inadequate market infrastructure, and a short supply of post-harvest handling facilities also affect access to food.

Under the framework of the *Third Strategic Plan for Agriculture Transformation (PSTA-3)*, the Government, in collaboration with DPs and private sector partners, has invested in programs to increase access to food such as the construction of feeder roads (to reduce transport costs for staple and high value crop commodities), post-harvest facilities (drying grounds, site-level stores and modern silos and warehouses, etc.), medium and small-scale agro-processing plants, and community-level collection centres. Other ongoing initiatives that aim to improve marketing efficiency for smallholder farmers and the overall commodity value chains include the national strategic grain reserve, Purchase for Progress Program (P4P), Farm to Market Alliance (FTMA) and E-Soko, among others. Although some progress has been made, all of these interventions need to be expanded and sustained in order to achieve impact at scale. Specific to the national strategic grain reserve, only 24% of maize and bean reserve were achieved in 2015/16 and 15% in 2016/2017 compared to the anticipated targets. A functioning national food reserve is important to address sudden food shortages, as well as the excessive price volatility of food. The final formulation stage of the PSTA-4 considers that "accessibility of food will be enhanced through higher household incomes combined with greater resilience to market and production shocks." Factors that influence food accessibility and resilience to production and market risks include improved storage capabilities, early warning and market information systems and insurance schemes. The new strategy recognizes that country-wide access to food will be achieved when all households have sufficient resources to obtain appropriate food (through production, purchase, and/or direct support under social protection) for a nutrient-rich diet.

Food utilization

In respect to food utilization, SDG 2.2 reiterates that by 2030, countries should end all forms of

malnutrition. This includes achieving, by 2025, internationally-agreed upon targets on stunting and wasting for children under 5, and addressing the nutritional needs of adolescent girls, pregnant and lactating women and elderly persons. Despite the recent progress made by the Government in areas of FNS, these areas remain a high priority. Based on existing data, the Strategic Review confirmed that malnutrition continues to be widespread in Rwanda, especially among children under 5. Stunting (low height-for-age) affects 38% of children under 5, while underweight (low weight-for-age) affects 9% and wasting (low weight-for-height) 2.2% among children within the same age category. Despite remarkable improvements in children's nutritional status, stunting is still alarmingly high and above the WHO's high severity threshold. Only wasting is currently on track to meet the set target by the Rwanda Ministry of Health (MoH) for 2017/18.

In addition to chronic and acute malnutrition, anemia levels in children under 5 are high and the pace of reduction is slow while steadily increasing in prevalence among women. Currently, anemia affects 37% of Rwandan children under 5 and 19% of women of reproductive age (15-49 years). As indicated above, although the trend is changing, Rwanda's staple diet is starch-based. With plantains, tuber and root crops providing the majority of food energy, very little bio-available iron is consumed by the average person. Existing surveys and studies do not provide information on essential minerals and vitamins other than iron. Moreover, some studies indicate that while having sufficient and diverse foods serves as a preventive measure, food alone is not sufficient to eradicate stunting in Rwandan households. Additional influencing factors include (a) access to quality water, health services and sanitation (WASH) and (b) care practices of women and children. Findings show that access to improved sources of water and/or potable water is important in reducing the risk of stunting among children. Unfortunately, access to clean drinking water remains a challenge both in rural (47% have access to water within 500 meters of their residence) and urban areas (61% have access to water within 200 meters of their residence), consequently increasing the burden on women and children who are generally responsible for fetching water. Recent studies also indicated that overweight and obesity rates are rising with the increase of wealth. Some cultural attitudes and perceptions are suspected to contribute to overweight and obesity rates among women more than men based on popular beliefs that fatness among women is considered a sign of beauty in some Rwandan communities. Nonetheless, obesity is associated with an increased risk of various non-communicable diseases in all sex and age categories.

Food stability

Food stability refers to the ability to obtain food over time. SDG target 2.4. calls for "sustainable food production systems and implementation of resilient agricultural practices that increase productivity and production, help maintain ecosystems, strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality".

Despite tremendous increases to food availability through the successful implementation of the flagship programs mentioned previously, stability of food throughout the year and at all times remains an important constraint in Rwanda. The drought of 2016-17 affected crop and livestock farmers across the country (mainly in the Eastern and Southern Provinces). Shocks and disaster-induced food insecurity disproportionately impact poor households in Rwanda, rendering relevant the need for a shock-responsive/sensitive social protection system that strengthens risk mitigation and rapid response capacities. In implementing and strengthening social protection interventions, it is crucial to ensure that early warning systems are established along with contingency plans, financing mechanisms and appropriate institutional arrangements in order to adequately respond to potential shocks. Currently, production systems are very similar with harmonized cropping calendars and unified uses of inputs and cropping techniques. While these similarities allow gains in the penetration and adoption of technology and increased access to markets, they also increase the seasonality of food production and impact of shocks. Production patterns affect the stability and access to food through an aligned seasonality of

prices. This also implies the need for more flexibility in the use of risk mitigation techniques for staple crop production including production diversification in a given area, use of mixed-cropping techniques, crop rotation and diversification of calendars. Increasing the resilience of the production system is a key determinant for more stable food systems and food access. As emphasized previously, resilience is partly influenced by the production system, particularly in regard to diversification and integration with other sub-programs such as agroforestry, livestock and fish farming.

Through the implementation of three generations of PSTA, the Government has made good progress in terms of output indicators relevant to food stability. However, stability of food at the household level remains highly volatile. This volatility is due to several factors including limited access to and use of fertilizers and improved seeds, lacking small-scale irrigation and mechanization practices and insufficient knowledge of resilient agronomic practices such as integrated soil fertility management, agroforestry, conservation agriculture, crop rotation/diversification. Existing government interventions that aim to increase food production, accessibility and utilization need to be scaled up as they are equally relevant to food stability. Increasing the resilience of food production systems in Rwanda has gained more importance as rainfall shortages in recent years have highlighted the limitation of existing prediction and response mechanisms.

National policy and response analysis

Food and nutrition security in national planning

The policy environment in Rwanda is conducive for promoting FNS. Food security and malnutrition are considered foundational issues in the EDPRS-2. National Development goals of FNS are also reflected in the *National Food and Nutrition Policy* (2013), the *Seven Year Government Program* (7YGP, 2013-2018), the *National Food and Nutrition Strategic Plan* (NFNSP, 2013-2018), the third *Health Sector Strategic Plan* (HSSP-3, 2012-2018) and PSTA-3 (2013-2018). Additionally, the understanding and nature of FNS interventions are shifting from a purely agriculture and health-related framework to prioritization in other sectors, including social protection, education, water and sanitation, gender and family promotion, and emergency and disaster management. These sectors are increasingly accommodating various dimensions of FNS in their respective policies and strategies.

The multi-sectoral approach to FNS interventions further enforces the need to link household FNS to social protection, education, safe water, hygiene and sanitation, gender, family issues, emergency and disaster management. Adequate integration of these various sectors into FNS interventions will substantially reduce the prevalence of malnutrition and improve household food security, particularly among the country's most vulnerable families.

Currently, the data being used to inform policy revisions and planning processes regarding FNS are drawn mainly from commonly used tools such as the Integrated Household Living Conditions Survey (EICV), the Demographic Health Survey (DHS), and the Comprehensive Food Security and Vulnerability Analysis (CFSVA). In moving towards a broader scope of data analysis, alternative options for providing data for planning exercises in Rwanda could include the Seasonal Agriculture Survey (SAS), the annual planning and evaluation of *Imihigo* (performance contracts), as well as the annual sector backward looking reports.

The overall national development framework articulated under Rwanda's *Vision 2020* defined five key performance indicators and targets relevant to FNS namely: (i) agriculture production in terms of energy availability (Kcal/capita/day), (ii) food consumption score, (iii) acute child malnutrition, (iv) underweight and (v) chronic malnutrition. Various sector policies and strategies are being implemented to contribute to achieving targets set under the above five performance areas. Several non-government partners are implementing key strategies and plans in alignment with Rwanda's national planning framework. These

include the UNDP, UNICEF's Common Country Programme for Rwanda (CCPR), WFP's Common Country Programme for Rwanda (CCPR), FAO's Country Programming Framework (CPF) for Rwanda, and WHO's Country Cooperation Strategy (CCS) for Rwanda.

In addition to UN-based agencies, other relevant players are also working towards these five key indicators including bilateral and multilateral development partners (World Bank, African Development Bank, USAID, Embassy of the Kingdom of the Netherlands, Swedish Development Cooperation, etc.), NGOs (e.g. Heifer International, Catholic Relief Services, SNV Netherlands Development Organization, etc.), universities and independent research organizations (e.g. CGIAR Centres, the Alliance for a Green Revolution in Africa and Harvest Plus), private sector operators, and farmers' organizations. Specific to the private sector, the Ministry of Trade and Industry (MINICOM), in collaboration with the Private Sector Federation of Rwanda-PSF, developed the Rwanda Private Sector Development Strategy (RPSDS, 2013-2018) which promotes Commodity Chains Development. Currently, there are several large and small and medium enterprises (SME) agro-processors involved in businesses that promote the availability and access of nutritious food products. For example, the newly established African Improved Foods (AIF) company, started producing energy-dense and nutrient-rich food products that are being used under the *Vision 2020 Umurenge Programme* (VUP) to improve the nutrition status of the poorest households in Rwanda and across the region.

Programmes and key implementation activities

This Strategic Review shows that FNS programmes and implementation activities in Rwanda can be categorized into five main areas of interventions: 1) food, 2) agriculture and healthy diets, 3) maternal and child care, 4) health, and 5) social protection and WASH. The subsequent analysis shows that prominent areas of nutrition interventions where stakeholders are mainly involved include the promotion of kitchen gardens, infant and young children feeding (IYCF) practices, and hygiene promotion and social behavior change campaigns (SBCC). Findings from consultations with stakeholders revealed that a majority of them have their partners that operate their interventions countrywide. Dominant channels for their respective support include government budget support, direct programme/project implementation, and direct support to community-based organizations and individual beneficiaries. For stakeholders targeting communities, especially in the area of social protection, they are guided by the *Ubudehe* categorization of economic classes in Rwanda of which the revised criteria, took into consideration some aspects of FNS.

Financial resources for food and nutrition security

Development financing in Rwanda requires additional support from donor countries and organizations. FNS financing is channeled through resources allocated at the sector-level from the national budget or by organizations' own internally generated revenues. This Strategic Review revealed that, in the national revised fiscal budget, the share for ministries engaged in FNS fell between the range of 17% and 34.8% during 2013/2014 to 2016/2017. Financial estimates of specific activities linked to FNS measure between 5 and 8% of the annual budget increments in the agriculture and health sectors. These two sector ministries rely partly on external funding which constitutes 49 and 50% of their respective annual budgets. Furthermore, specific FNS activities receive low prioritization in terms of resource allocation during the annual *Imihigo*, in which they receive an estimate 5% of the total planned budget. In respect to social protection programmes, this review indicated that the overall level of annual budget increments is about 12%. Comparatively, the role of the private sector in investing toward FNS-related activities is still limited partly because FNS continues to be perceived as a social responsibility of the government. Overall, budget allocation to FNS-related activities needs to be more specific and must increase if more progress is to be made. In addition, the sustainability of government and development partners FNS-related programmes deserve greater attention. Finally, the 2017 Global Nutrition Report indicates that Rwanda registered one of the largest decreases in donor investments in nutrition-sensitive

sectors from 2014 to 2015.¹

Institutional architecture and capacity

FNS requires interventions that are designed within a complementary framework and implemented with joint ownership, therefore calling for multi-sector approaches and integrated coordination mechanisms. In Rwanda, FNS activities are coordinated at three levels of administration: Central, Sector, and District. Findings of this Strategic Review revealed the existence of various coordination and accountability mechanisms among the aforementioned administrative levels. However, existing institutional structures do not adequately foster the required integration of efforts across key government sectors and levels to manage a coordinated response to the FNS goals. The National Early Childhood Development Program², managed by the Ministry of Gender and Family Promotion (MIGEPROF), is coordinating food and nutrition issues across five Ministries: the MoH, the Ministry of Agriculture and Animal Resources (MINAGRI), the Ministry of Local Government (MINALOC), the Ministry of Infrastructure (MININFRA), and the Ministry of Education (MINEDUC). However, MIGEPROF's ability in both programme planning and management has not fully been leveraged. The ministry's engagement with relevant external partners also continues to be fragmented with a majority of programming being influenced by specific donor priorities. The effectiveness of existing coordination mechanisms will depend on a clear accountability mechanism to ensure that vertical relations among institutions are translated into realistic plans and programme implementation strategies.

Gaps and recommendations for FNS responses

Based on a situational and response analyses, this Strategic Review identified gaps in four thematic areas: (a) policy and strategic frameworks, (b) program design and implementation, (c) data and knowledge, and (d) institutional arrangements and capacity. In total, 112 recommendations have been formulated to address the gaps identified in different categories. Responsible institutions and timeframe for implementation of each recommendation are shown in Appendix 11.

Gaps and recommendations to enhance policy framework

Over the last two decades, Rwanda created an enabling policy environment for FNS programming. To this end, various policies and strategies were designed and implemented in an inclusive and participatory manner within the sectors of agriculture, health, education, finance, social protection and land and sanitation. However, gaps in policy and strategic responses to FNS challenges remain within this policy environment. This Strategic Review highlights those areas and provides recommendations to improve the policy framework.

Policy and strategic framework gaps	Policy recommendations
Multiple sector strategic plans reflect aspects of FNS. However, there is limited clarity on synergies and coherence towards addressing major FNS challenges.	A1. Improve coherence among sector policies and strategies on FNS interventions during the current national planning cycle.

¹ Development Initiatives. 2017. Global Nutrition Report 2017: Nourishing the SDGs. Bristol, UK: Development Initiatives.

² Formerly under the mandate of the now defunct National Food and Nutrition Coordination Secretariat (NF-NCS), managed by MINALOC.

<p>In most policy interventions, beneficiaries are selected based on the <i>Ubudehe</i> categorization scheme. However, the link between <i>Ubudehe</i> categories and FNS remain unknown. In addition, beneficiaries' required appeal process is unclear at decentralized administrative levels.</p>	<p>A2. Investigate linkages between <i>Ubudehe</i> categories, food security and nutrition to better inform policy interventions.</p>
<p>During the last decade of CIP implementation, access to and the use of subsidized fertilizers and improved seeds, have played a major role in food production, income generation and poverty reduction. However, the current input subsidy scheme excludes resource-poor households that are labor and land constrained.</p>	<p>A3. Explore policy options that allow resource-poor households to effectively access and use subsidized agricultural inputs such as fertilizers, seeds, lime and small-scale irrigation kits.</p>
<p>The national Social Protection Policy (2005) recognizes food insecurity and malnutrition among the key challenges that affect extremely poor households. However, the policy excluded any recommendations or strategies to address these challenges.</p>	<p>A5. Update the existing Social Protection Policy to reflect how social safety-net interventions are linked to FNS outcomes and ensure its alignment with EDPRS-3, Vision 2050 and the SDGs.</p>
<p>Social safety net interventions are important to support vulnerable households and to allow graduation from poverty. Currently, women-headed households are not included under special social protection programs.</p>	<p>A4. Include women-headed households in the special social protection programs as most have limited land resources and fall into very poor economic categories.</p>
<p>FNS policies, strategies and programmes are not adequately informed by a gender situation analysis and therefore, lack information on what gender dimensions to consider in the overall policy and strategic frameworks. For instance, under the VUP public works program, some types of employment are unsuitable for women, especially women who are breastfeeding or pregnant.</p>	<p>A8. Effectively address gender equality and women's empowerment in national policies and strategies based on well-informed gender analysis which includes disaggregated data on gender issues.</p>
<p>To improve climate adaptation strategies, the country needs to involve local communities in both the planning and implementation of ecosystem-based adaptation measures. However, no policy on climate change management and dissemination is currently in place to ensure that agriculture promoters can provide timely and accurate information to communities.</p>	<p>A6. Develop a national policy on climate change that gives direction on how to deal with recurring climate-related shocks.</p>
<p>The majority (70%) of food consumed in Rwandan households comes from cash purchases, making households vulnerable to changes in food price inflation. To date, there is no policy framework and mechanisms on food market price regulation.</p>	<p>A7. Develop a policy on agriculture commodity price regulation and a framework to monitor food price inflation, including coping mechanisms in the event of a price crisis.</p>
<p>Adding nutrients to processed foods is an effective way of improving the overall nutritional quality of foods. However, there is no policy or regulatory framework to provide guidance on food fortification in Rwanda.</p>	<p>A10. Develop a policy on food fortification in Rwanda, including standards on ration additions of essential vitamins and minerals to food products. However, this will require accurate micronutrient data collected by reliable sources.</p>

Effective national food control systems are essential to protect the health and safety of consumers in any country. Rwanda does not have a specific policy on food quality and safety management. This is critical along the crop value chain (production, processing and marketing) for consumer protection.	A12. Develop a specific policy on food quality and safety management.
Developing crop varieties that are rich in specific micro-nutrients and minerals is a promising avenue to tackle malnutrition issues in the context of Rwanda. However, there needs to be a national strategy to promote crop bio-fortification.	A11. Establish a national strategy on crop bio-fortification and strengthen research programmes on bio-fortified crop varieties.
Food security and malnutrition are featured in EDPRS-2 as a foundational issue, which has led to weak planning, programme implementation, resource mobilization and coordination.	A13. The Government should explore the option of requalifying “food and nutrition security” as a stand-alone cross-cutting sector to increase focus in terms of planning and resource allocation.
Although still limited, recent studies show that the prevalence of overweight and obesity is increasing among the Rwandan population in both urban and rural areas. Yet, no strategy is in place that deals with overweight and obesity issues.	A9. Develop a national strategy to prevent overweight and obesity among all categories of the Rwandan population.

Gaps and recommendations in program design and implementation

The Government has designed and implemented programs that cover the four food security pillars as described above, in addition to nutrition components around maternal infant and young child nutrition, dietary diversity, hygiene promotion, school nutrition, supplementary feeding, micronutrient deficiency, and behavior change. This review identifies the remaining gaps in food security, nutrition and social protection programs and provides recommendations accordingly.

Issues in food security programs	Recommendations
Low crop productivity gains	<p>B1. Increase investments in programs that enhance the sustainability of crop productivity for smallholder farmers such as irrigation, land-husbandry, mechanization, agroforestry, and integrated soil fertility management practices.</p> <p>B2. Revise the existing input subsidy scheme through improved targeting of programme beneficiaries and increased access of poor households to quality seeds, fertilizers and limes.</p> <p>B3. Strengthen and expand proximity extension services (i.e. Twigire Muhinzi, Farmer Field School, Community Animal Health Workers, etc.) in the efficient use of input packages and good agronomic practices to maximize outputs; including the involvement of private service providers.</p> <p>B4. Increase marketing opportunities for agricultural products to further increase the income levels of rural farming households. This includes strengthening the skills of extension workers in the area of supply chain management/</p> <p>B5. Promote climate-resilient, stress-tolerant and nutrient-responsive varieties to ensure sustainability.</p> <p>B6. Operationalize the existing crop protection strategy that provides guidance on how to monitor and cope with emerging diseases and pests.</p>

<p>Limited diversity of agriculture production and food</p>	<p>B7. Scale-up existing programs that promote nutritionally diverse foods (e.g. vegetable kitchen gardens, mushroom production, fruits, poultry and fish farming, etc.). However, the scaling up of these programs must be supported by evaluation studies which assess the effectiveness of these programmes in increasing dietary diversity.</p> <p>B8. While taking into consideration new crop varieties with high nutritional values and benefits, expand the range of priority crops under the crop intensification programme.</p> <p>B9. Promote and support the development of post-harvest management, storage and processing technologies at the household level.</p> <p>B10. Scale-up the existing government subsidy scheme on small-scale irrigation equipment to include farmers growing crops during the lean season (season C). This should be coupled with the promotion of short-duration crop varieties.</p> <p>B11. Expand existing initiatives that allow farmers access to market information and commodity traders.</p> <p>B12. Promote entrepreneurship and a business oriented mindset among rural households in order to diversify their income sources through off-farm job opportunities.</p>
<p>Insufficient food market infrastructure</p>	<p>B13. Expand investments in the improvement of market infrastructure (e.g. feeder roads development, cold storage, produce collection centers, market information access, etc.) to stabilize food prices and optimize access to diversified food items by all Rwandans.</p> <p>B14. Promote value addition innovations targeting nutrient-rich foods (e.g. fruits, vegetables, milk, fish, etc.).</p> <p>B15. Develop innovations in produce marketing that can promote increased market integration of smallholder farmers (e.g. warehouse receipt system, commodity exchanges, etc.).</p> <p>B16. Develop an effective Market Information System (MIS) for Rwanda to help consumers deal with changes in commodity prices throughout the entire year.</p>
<p>Limited food storage capacity</p>	<p>B17. Increase the capacity of the National Strategic Food Reserve to deal with potential sudden food shortages.</p> <p>B18. Expand public investment in collection centers for agriculture produce (milk, vegetables, fruits, honey, etc.).</p> <p>B19. Upscale and disseminate innovations on household post-harvest management (low-cost silos, hermetic bags, etc.) through private service providers and farmers' cooperatives.</p> <p>B20. Promote private sector investment in food storage and food market systems (e.g. metallic silos, cold chain and cold transport logistics, etc.) to reduce the price of nutritious food items.</p>

Inefficient input distribution systems	<p>B21. Under CIP, strengthen a private sector-led inputs system to avoid procurement, distribution and retail delays to smallholder farmers.</p> <p>B22. Establish linkages between input markets, agro-processors and output markets.</p> <p>B23. Continue supporting initiatives that enhance the knowledge of smallholder farmers, commodity buyers and other actors on value chain financing aspects.</p> <p>B24. Review and expand existing crop insurance programs (inputs and yield insurance products), and where applicable, establish crop insurance within the subsidy program.</p>
Decreasing landholding & inappropriate land use and management	<p>B25. Enforce implementation of existing land use master-plans to protect land that is suitable for agriculture across all Districts of Rwanda.</p> <p>B26. Initiate a turn-around programme aimed at optimizing all currently underutilized developed lands (terraced and irrigated fields).</p> <p>B27. Promote alternative livelihood development opportunities (i.e. non-agriculture employment prospects) through close collaboration with relevant government ministries (agriculture, ICT, youth, public service and labour, education/TVT, etc.) and the private sector.</p> <p>B28. Update the crop regionalization policy based on existing crop suitability maps and changing rainfall patterns.</p>
Blanket fertilizer recommendations	<p>B29. Promote the local production and use of fertilizer blends that fit the requirements of specific crops and soils.</p> <p>B30. Expand the use of secondary and micro-nutrients to optimize productivity and value-cost ratios and raise farmer income levels.</p>
Issues in nutrition programs	Recommendations
Limited nutrition education and inequitable involvement of men and women in nutrition activities	<p>C1. Strengthen nutrition awareness and education programs at the household level.</p> <p>C2. Strengthen women’s education, empowerment and influence within the household; including special access to extension services.</p> <p>C3. Integrate a nutrition education component into all relevant agriculture programmes and projects to improve consumption of nutritious crops among producing farmer households.</p> <p>C4. Develop programmes that support awareness campaigns on the prevention of overweight and obesity among all categories of the population.</p> <p>C5. Strengthen nutrition and gender education components in the training curriculum of agriculture extension agents.</p>

<p>Limited coverage and content of Essential Nutrition Actions (ENAs)</p>	<p>C6. Ensure consistency in implementing the Essential Nutrition Actions and promote efficient geographic targeting across the 30 Districts of the country.</p> <p>C7. Develop extension messages related to the safe handling of food items and safe storage practices. Furthermore, integrate these messages into the training packages for Farmer Field School (FFS) facilitators, farmer promoters, Community Health Workers (CHWs) and other private service providers.</p> <p>C8. Establish national dietary guidelines to inform consumer food choices and facilitate nutrition education and behaviour change activities through grassroots agriculture and health extension workers.</p> <p>C9. Increase community sensitization on the importance of ensuring that children under 5 regularly attend GMP sessions at the health center level.</p> <p>C10. Strengthen programmes that promote access to energy-dense and nutrient rich foods, especially for children and pregnant and lactating women groups (PLWG).</p>
<p>Lack of an integrated approach to WASH activities</p>	<p>C11. Expand access to potable water in both rural and urban areas through increased investment in treatment and supply infrastructures.</p> <p>C12. Promote the integration of WASH in all community-level food and nutrition security intervention programs.</p> <p>C13. Design and implement awareness programmes that promote improved sanitation and enforce the development of individual latrines in rural areas.</p> <p>C14. Expand and strengthen support to CHWs and other grassroots nutrition agents who disseminate sanitation and hygiene messages.</p>
<p>Insufficient health facility infrastructure, commodities and materials for nutrition services</p>	<p>C15. Improve health facility infrastructures to properly accommodate nutrition services.</p> <p>C16. Mobilize and allocate sufficient budgets, commodities and materials for nutrition services at the health facility level.</p>
<p>Limited coverage of school feeding initiatives</p>	<p>C17. Strengthen programmes that promote access to energy-dense and nutrient-rich foods for school-going children</p>
<p>Large number of refugees and prisoners with extreme food insecurity</p>	<p>C18. Maintain external food assistance for refugees and other forcibly displaced populations with the aim of “leaving no one behind”.</p> <p>C19. To avoid malnutrition, provide sufficient and quality food for refugees residing in existing camps in Rwanda. Recent assessments indicate that access to nutritious food by refugee households is inadequate under current food rationing which lasts for only 23 days of the month.</p> <p>C20. Promote alternative income sources, other than humanitarian assistance, to refugee camps through the effective implementation of the newly developed Strategy on Economic Inclusion of Refugees.</p> <p>C21. Support interventions within refugee camps that promote other dimensions of nutrition security, such as WASH.</p>

Food insecurity risks among prison populations	<p>C22. Maintain feeding programs to prisoners with the aim of “leaving no one behind.”</p> <p>C23. Provide sufficient food to prisoners living in prison establishments to avoid malnutrition.</p> <p>C24. Strengthen existing alternative income sources and food for prisoners through support to the strategy developed by the Rwanda Correctional Services (RCS).</p> <p>C25. Support interventions in prison establishments that promote other dimensions of nutrition security such as WASH.</p>
Issues in social protection programs	Recommendations
Limited coverage of social protection programs	<p>D1. Continue the expansion of social safety net interventions to include individuals in lower economic classes, those who are food insecure, and households with children affected by malnutrition.</p> <p>D2. Ensure that the most food insecure and vulnerable households are accurately categorized under the Ubudehe classification scheme in order to benefit from targeted pro-poor support opportunities.</p> <p>D3. Improve and revise existing mechanisms to address complaints and to ensure increased transparency and inclusiveness.</p> <p>D4. Include Ubudehe categories 2 and 3 among beneficiaries receiving fortified blended food with Government subsidies. However, an exit strategy with clear timelines must be elaborated for each category and enforced.</p>
Lack of synergies between social protection and complementary agriculture programs	<p>D5. Establish strong partnerships between MINAGRI and the Rwanda Agriculture Board (RAB) and MINALOC and the Local Administrative Entities Development Agency (LODA), to ensure a coordinated approach when targeting agricultural asset transfer schemes and agricultural extension services to poor and vulnerable population groups.</p> <p>D6. Align social protection and agriculture priorities with the District-level <i>Imihigo</i> performance contracts.</p> <p>D7. Build the capacity of Local Governments to coordinate social protection interventions with other programs and services delivered at the Sector level.</p> <p>D8. Strengthen the <i>Girinka</i> Program and other livestock programmes to achieve impact at scale, including through the distribution of small livestock to poor and vulnerable households that are land-constrained.</p> <p>D9. Timely payment for VUP-Public Works (PW) to allow beneficiary households to reinvest in productive activities such as inputs.</p> <p>D10. Enforce the harmonization of a cross-sectoral monitoring and evaluation system between MINAGRI and MINALOC and create a dedicated joint working group</p>

<p>Uncoordinated beneficiary targeting between social protection and agriculture interventions</p>	<p>D11. Reinforce the harmonization of stand-alone sector targeting under PWV programmes (e.g. feeder road construction and maintenance, land terracing, construction of drainage ditches, reforestation, etc. under VUP and MINAGRI's PWV schemes) in order to efficiently respond to the needs of extremely poor households and communities exposed to natural disasters.</p> <p>D12. Strengthen the capacity of Local Governments and agents representing other sector line ministries, with the objective of promoting the adoption of a community-based approach to labour-intensive PWV within other sector programmes.</p> <p>D13. Improve planning and timing aspects between agriculture and social protection PWV to ensure that employment and income opportunities for poor households are sustained even during off-season agricultural periods.</p>
<p>Limited interaction and integration of nutrition in social protection programs</p>	<p>D14. Improve nutrition-sensitive social protection interventions and strengthen linkages within the needs of beneficiary target groups.</p> <p>D15. Support a comprehensive capacity development and nutrition education strategy for extension services.</p> <p>D16. Develop an effective shock-responsive/sensitive social protection system (including an early warning system, contingency plans, financing and adequate institutional arrangements) that will strengthen risk mitigation and rapid response systems to weather shocks and disasters that induce food insecurity among poor households during difficult years. The existing technical working groups and cluster meetings are among the entities that would need to coordinate initiatives within this area.</p> <p>D17. Continue supporting the subsidized health insurance scheme.</p>
<p>Uncertain graduation along <i>Ubudehe</i> social categories, mechanisms and sustainable livelihoods</p>	<p>D18. Customize and scale-up implementation of the minimum package for household graduation between <i>Ubudehe</i> levels (currently being piloted) and comprising training, coaching support, and linkages to complementary advisory services especially related to, business, agricultural and veterinary services, among others.</p> <p>D19. Strengthen the follow-up and advisory services offered to pro-poor programmes beneficiaries to ensure sustainability beyond the direct provision of support.</p> <p>D20. Enhance the VUP's awareness-raising component to increase the knowledge-base of programme beneficiaries in critical livelihood topics including nutrition, family planning, HIV and AIDS, among others.</p>

Closing data and knowledge gaps

A lack of evidence-based programs and interventions was identified as a key constraint in the effort to accelerate progress toward FNS in Rwanda. This Strategic Review provides recommendations aimed at closing data and knowledge gaps within the area of FNS.

Knowledge and communication gaps relevant to food and nutrition security	Recommendations
<p>There is a lack of national-level research that addresses the paradox of risk factors enabling the persistence of undernutrition among children.</p>	<p>E1. Initiate national-level studies to assess the risk of underlying factors behind the persistence of child under nutrition (e.g., by gender, residence and wealth quintiles) despite the progress made in food production and poverty reduction; reasons why infants and young children tend to become more malnourished after the introduction of complementary foods; why some districts/regions are progressing faster than others in reducing malnutrition; and the impact of nutrition interventions on the Minimum Acceptable Diet; among other possible topics of study.</p>
<p>Critical research gaps remain on how to achieve effective cross-sectoral linkages for better FNS outcomes. For example, research opportunities exist in the areas of:</p> <ul style="list-style-type: none"> • Linkages between agriculture and nutrition • Linkages between agricultural markets and nutrition • Linkages between nutrition and gender in agriculture 	<p>E2. Review the methodology of national statistics to collect disaggregated data on household FNS outcomes by sex, age group, employment status, vulnerability level (disabilities, economic activity, poverty status), geographic location (rural or urban households), and agro-ecological zones (AEZs) etc.</p>
<p>Insufficient research outputs in the areas of plant breeding, animal genetic improvement, climate modelling and resilience, biotechnology, food technology (including fortification and food supplements), postharvest handling, food storage and processing, nutrition, horticulture, etc.</p>	<p>E3. Strengthen and capacitate the national research system to increase research outputs in new areas relevant for FNS as described above.</p>
<p>WASH is often indicated as a component of nutrition. However, it is still difficult to determine the extent to which access to water and proper sanitation is reflective of the level of malnutrition for example.</p>	<p>E4. Improve the design of EICV and the Demographic and Health Survey (DHS) to capture data on linkages between WASH and malnutrition.</p>
<p>Limited levels of involvement of media outlets (TV, radio, social media, theater, etc.) in nutrition education and awareness. Similarly, no strong lobby or advocacy groups exist to influence policy makers' knowledge on the cross-cutting nature of FNS issues.</p>	<p>E5. Develop a national communication plan that involves all types of media in conveying innovative messages and approaches on the consumption of nutritious food and the eradication of malnutrition.</p>
<p>Specific to complementary nutrients, additional research is needed to understand the nutrition gaps, micronutrient deficiencies other than anemia, and diet diversification between age groups and varying geographic locations. There is a need to understand why some regions perform better than others in terms of food and nutrition.</p>	<p>E6. Carry out standardized studies aimed at understanding additional micronutrient deficiencies and diet diversification between age groups and varying geographic locations.</p>

Data and M&E gaps relevant to SDG 2 achievement	Recommendations
<p>A comprehensive approach to monitor and evaluate FNS does not exist. Furthermore, food security, nutrition, health, social protection and WASH interventions are not evaluated in an integrated and comprehensive manner.</p>	<p>E7. Establish and/or improve monitoring and evaluation systems that provide continuous feedback mechanisms to inform FNS programs at all levels. For instance, to better understand the FNS situation in the country, the following additional outcome indicators could be integrated into the M&E framework: diversity of foods produced on-farm, smallholder farmer household incomes, physical access to markets, local market prices of nutrient-rich foods (or the cost of a healthy diet), food preferences, women’s empowerment in the agriculture index, productivity and the diversity of off-season farming, the proportion of sustainable agriculture practices, the minimum acceptable diet (MAD) for children 6-23 months, minimum dietary diversity for women of reproductive age, household dietary diversity scores, household hunger scores, and coping strategies index, etc.</p> <p>E8. Train and involve community-level workers in collecting data that will improve the monitoring and evaluation of FNS progress.</p>
<p>Evaluation and impact assessments of programmes are rarely conducted. For instance, some partners decide to complete an impact assessment internally for the sake of informing their programmes without necessarily sharing the findings with other stakeholders.</p>	<p>E9. Institute impact research requirement of programmes supporting homestead production e.g. CIP, <i>Girinka</i>, Kitchen garden programmes, and small livestock rearing programmes.</p> <p>E10. Generate information on nutrition budgets and spending to improve accountability and to track and monitor resourcing progress.</p>
<p>The establishment of FNS targets is not based on a thorough or deep analysis that would precisely inform any achievable goals. Oftentimes, available data-sets are not fully analyzed and disseminated for evidence-based planning and decision making.</p>	<p>E11. Create systems for data and information sharing, including an accessible dashboard or portal for best practices for scaling up successful programmes and interventions.</p>

<p>Data gaps in line with the SDG 2 indicators and targets:</p> <ul style="list-style-type: none"> • Disaggregated data on FNS outcomes in most interventions/programs. • Data on the impact of nutrition interventions including indicators correlated to stunting, most notably the MAD and its component indicators (minimum dietary diversity and minimum meal frequency). • Data on the percentage of agriculture area following sustainable agricultural practices. • Recent data on livestock and livestock-related FNS interventions. • Data on the percentage of agricultural households using irrigation systems. • Data on the percentage of agricultural households using eco-friendly fertilizers. • Data on the volume of production per labour units for small-scale food producers (i.e. women, indigenous persons, family farmers, pastoralists, fishers, etc.). • Data on the percentage of change in import and export tariffs on agricultural products. • Data on agricultural export subsidies. • Recent data on seasonal food balance sheets as well as the availability of energy (calorie), proteins and lipid sources on a national level. • Household data on under-five malnutrition and vulnerable groups (, elderly, sick people, etc.). <p>Data on the graduation framework for households in <i>Ubudehe</i>'s low social categories (1 and 2).</p> <ul style="list-style-type: none"> • Data on women's participation, time use, perceived returns on women's labor, discretionary income and decision-making power. 	<p>E12. Improve the SAS design in order to capture data that is required to monitor SDG 2 targets and provide an analysis on national food balance sheets taking into account supply (domestic production, imports, exports, change in stocks and available supply), domestic utilization (feed, seed, waste and other uses) and per capita food supplies (Kcal, protein and fat/person/per day). Food balance sheets should be a regular annual exercise based on countrywide pre-harvest and post-harvest information.</p> <p>E13. Improve the scope of DHS to include data collection on other micronutrients deficiencies (such as vitamin A, other minerals and vitamins) other than anemia.</p> <p>E14. Commission policy studies on food systems to understand linkages between food needs, food preferences, food production and food costs; and provide guidance on how to fill nutrient gaps at national, local and household levels. These studies should also explore how the food basket price can be reduced in Rwanda over time.</p> <p>E15. Build a framework and database of <i>Ubudehe</i> beneficiary households.</p>
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Gaps and recommendations in institutional arrangements and capacity

This Strategic Review reveals existing gaps in terms of institutional arrangements within and between institutions and makes corresponding recommendations as illustrated bellow.

Gaps in institutional arrangements and capacity for FNS	Recommendations to strengthen coordination and improve capacity
<p>Various coordination and accountability mechanisms exist among sectors relevant to FNS. However, the existing institutional structures do not adequately foster the integration of respective efforts needed across the relevant government sectors.</p>	<p>F1. Continue strengthening cross-sectoral collaboration to deliver interventions (policies, programmes, activities, etc.) at scale, through the newly established “joint <i>Imihigo</i>” framework.</p>
<p>The NFNCS is the entity responsible for the coordination of food and nutrition, but it has limited power in regard to vertical accountability. One of the Secretariat’s main responsibilities is to enforce cross-sectoral synergies; yet the secretariat has limited horizontal power over sectors contributing to FNS.</p>	<p>F2. Revisit the option of placing the NFNCS under a higher-level office for more effective vertical and horizontal coordination of activities under line ministries and agencies.</p>
<p>The majority of Ministry focal points lack educational backgrounds relevant to the mainstreaming of FNS in sector planning and implementation.</p>	<p>F3. Develop a capacity building plan to enhance the skills and expertise of stakeholders related to FNS. Government and partners should train additional nutrition specialists who can be placed in various ministries that engage in cross-cutting FNS issues.</p>
<p>There are crucial gaps in FNS governance systems and accountability including joint planning, budget allocation, activity implementation and M&E.</p>	<p>F5. Partners in all clusters contributing to FNS, should have clear and integrated accountability mechanisms to ensure “joint planning, resourcing, implementation, and M&E systems</p> <p>F9. Continue the enforcement of a strong involvement of Local Government (Districts, Sectors, Cells, and Villages) in policy and program planning for food and nutrition security.</p> <p>F4. Mobilize resources to finance the FNS sector beyond the usual allocation of resources from one basket of funds specific to FNS interventions. Alternatively, increasing the budget proportions in these relevant sectors can also increase the amount of resources needed.</p>
<p>At a decentralized level, a multisector District Food and Nutrition Steering Committee (DF&NSC) under MINALOC is accountable to the District Mayor. However, the effectiveness of these coordination mechanisms depends mainly on donor and partner’ support.</p>	<p>F8. Enforce the effective operationalization of DF&NSCs and provide the necessary facilitation.</p>

<p>There is room for capacity development at the level of the individual as nutrition and diet are strongly influenced by cultural beliefs and consumption behaviors. Additional potential also exists for mass education and skills transfers with more of a focus on FNS.</p>	<p>F10. Strengthen community-level programs that build household's capacity, knowledge, and accountability to synergistically address food utilization, sanitation and hygiene.</p> <p>F6. Conduct regular training sessions for health care givers (including CHWs) in nutrition-specific interventions such as maternal infant and young child nutrition (MIYCN), management of acute malnutrition, and management of diet-related non-communicable diseases, etc.</p>
<p>Agricultural extension agents are not sufficiently trained on nutrition related subjects to incorporate FNS related issues into the information package delivered to farming communities.</p>	<p>F7. Invest in the capacity development of agricultural extension agents on nutrition related matters and develop appropriate information packs for farmers to improve the link between food production and nutrition security.</p>

1. Introduction

1.1. Background

In September 2015, World leaders formulated the 2030 Agenda for Sustainable Development aimed at achieving sustainable development by ending poverty, hunger and inequality. The Agenda situates humanitarian initiatives within the broader context of achieving human progress and development, with a clear focus on the most vulnerable people and a strong commitment to “leaving no one behind”. The Agenda is led and driven by Member States, and its 17 Sustainable Development Goals (SDGs) are integrated and indivisible. Although the agenda is a global framework, it is country-led with synergies from all stakeholders. SDG targets are set universally to give guidance to all countries on how they should address poverty eradication, but they are not “one-size-fit –all” (Bizoza, 2016).

FNS is specifically related to SDG 2 which articulates the objective to “End hunger, Achieve Food Security and Improved Nutrition, and Promote Sustainable Agriculture.” This goal entails the need to end hunger by 2030 and ensure access to safe, nutritious and sufficient food year-round by all people, in particular poor, vulnerable people and infants. On a continental level, the commitment is reiterated under the Malabo Declaration to “End Hunger in Africa”. The latter stipulates that African countries must end malnutrition in all its forms, reduce stunting to 10%, and decrease the number of underweight children to 5%, by 2025. To tackle poverty and hunger in Africa, a strong case exists for a focus on efforts to improve agricultural systems and for the need to institute efficient strategic frameworks across the food production and access chains, including nutrition security (Gowing et al., 2008).

Since September 2015, Rwanda and many other countries, have embarked on the process of integrating SDGs into their national development frameworks. Through collaboration with development partners, the country has identified its priorities in terms of SDGs and targets in alignment with the 2030 development agenda (Bizoza, 2016)³. Despite past progress made towards achieving the MDGs, especially within the areas of poverty reduction and food security, these remain priority areas for future development. Poverty levels in Rwanda have reduced from 60.4% in 2000 to 39.1% in 2015, while chronic poverty has reduced from 24% to 16.3% in the same period (NISR, 2016). Additionally, stunting, underweight and wasting rates have all decreased, and there has been a substantial reduction in anemia among children under 5. According to Rwanda’s DHS (2014-2015), stunting rates (height/length for age) have reduced from 44% to 38%; wasting (weight for height) from 3% to 2% and underweight (weight for age) from 11% to 9%. Chronic malnutrition remains high (47% of rural children are stunted, compared to 27% of urban children) (WFP et al., 2015). Current national targets focus on reducing the prevalence of stunting, underweight and wasting for children under 5 to 18%, 4% and 2% respectively, by 2018 (MoH, 2013). Stunting rates remain high presenting a challenge that the country must address to achieve food and nutrition security for all.

Poverty has steadily decreased over the past 20 years, coupled with rising incomes and increased agricultural production levels. However, previous studies identified some divisions between traditional food security, namely agricultural production and improved nutrition. Current trends emphasize the need for food and nutrition security to be recognized beyond the sectors of agriculture and health. Sectors such as social protection, education, women’s empowerment, sanitation, trade, youth and ICT are also expected to play key roles in improving nutrition security.

Although FNS has been clearly articulated in relevant national development strategies, and given high priority in the national development agenda (e.g. Vision 2020, the Seven Years Government Program-7YGP, the second Economic Development and Poverty Reduction Strategy- EDPRS-2, and

³ Overall, 72 indicators and 240 targets have been selected from all 17 goals and will be monitored by various sectors. Among the 240 targets, 13 are in agriculture, 37 in health, 11 in disaster management, 2 in water and sanitation, and 1 in social protection.

Sector Strategic Plans-SSPs), links between the two have not yet been achieved. Some issues pertaining to food and nutrition security are not well understood; leading to different interpretations, inadequate interventions, and gaps in national policy responses. The four components of food and nutrition security (food availability, accessibility, utilization and sustainability), are not receiving equal consideration both in terms of policy response and development interventions. More focus is often made on the component of food availability and less on the other three components. Therefore, there is a need to establish a common understanding on issues pertaining to FNS and a more integrated approach to strategic planning and interventions.

The Government of Rwanda recognizes the need for multi-sectoral interventions and coordination to end malnutrition. It is in this perspective, that the Government is placing a stronger emphasis on strengthening food and nutrition-specific interventions to address immediate causes of food insecurity and malnutrition, key to accelerating progress. Consequently, sectors such as agriculture, education and social welfare, are developing nutrition-sensitive interventions focused on reducing malnutrition. It was within this context that the NFNCS was set up in December 2016, hosted by MINALOC, with the mandate to provide policy advice in all food and nutrition-related matters in addition to the efficient and effective coordination of all food and nutrition interventions.

The Rwanda Country Strategic Review of Food and Nutrition Security, is an independent, analytical and consultative exercise that identifies the key achievements and challenges faced by Rwanda in achieving food security and improved nutrition, and provides prioritized areas for Government action, humanitarian and development partners and the private sector. The purpose of this Strategic Review is to enable Government to accelerate progress toward improving food security and nutrition in line with the national plan (EDPRS-2) and the global SDG2 goal. One expected outcome of this review is to give the status of current knowledge, information, policy and national program responses, and recommendations to inform future strategic planning on FNS.

This Strategic Review is timely for Rwanda, especially at this critical stage where the country is in the process of localizing SDGs in all national development frameworks, revisiting its vision 2020 to Vision 2050, designing the new Seven Years Government Program following the recent presidential elections, designing of the *National Strategy for Transformation* (formerly the EDPRS-3), and subsequent Sector Strategic Plans (SSPs).

1.2. Objectives and Scope of the Strategic Review

The overall goal of this Strategic Review is to establish a comprehensive understanding of the current situation of food and nutrition security in Rwanda, to identify any gaps in the national policy response plan and programming, and to recommend potential areas for consideration in the next national planning process. More specifically, the objectives of this Strategic Review are to:

- (1) Establish a comprehensive and detailed situational summary of food and nutrition security;
- (2) Conduct a review of existing food and nutrition security-related strategies, policies, plans and programs, and identify policy and strategic response gaps;
- (3) Provide an overview of potential measures and mechanisms in priority areas, to accelerate progress towards achieving national FNS targets.

In alignment with the three specific objectives listed above, the scope of this Strategic Review includes current policies, strategies and programs; main food and nutrition security trends and targets; main issues pertaining to food and nutrition security and how they are addressed or streamlined in the national planning process; activities, beneficiaries, and access to services related to food and nutrition security; main funding sources and the sustainability of FNS interventions; institutions and institutional

arrangements, and capacity gaps in implementing FNS programmes; and the extent to which cross-sectorial policies, programmes, and interventions compliment FNS in Rwanda. However, this study does not include an impact assessment of previous programmes and policies on food and nutrition security.

1.3. Methodological Approach

The Rwanda Strategic Review is a comprehensive and holistic content analysis of all existing and relevant policies, strategies, programmes, and studies on food and nutrition security. This Strategic Review helps to respond to the study objectives by depicting the current status of food and nutrition security in Rwanda and subsequent gaps in policy response from a planning perspective. This study was also informed by data collected from semi-structured interviews conducted through multiple consultations with various stakeholders from the public and private sectors, UN Agencies, CSOs, DPs, and International and National NGOs. Appendix n° 1 provides the guided questions used during these consultations while Appendix n° 12 lists all the institutions and organizations consulted. Views obtained during these consultations were recorded and transcribed to inform certain information gaps observed during the content analysis and the desk review.

To ensure quality assurance of the Strategic Review process, an Advisory Group including members from Government, research, and development partners, was formed to ensure that different decision-makers and subject matter specialists in the FNS-domain, participated and provided inputs on the study's deliverables. Validation workshops were held to provide comments, input and guidance on this Strategic Review. High level meetings were also organized by MINALOC through the NFNCS. Additionally, several progress review meetings were organized to ensure the research team fully understood any issues being raised by stakeholders and had further guidance where needed. Furthermore, the research team participated in several technical and sector working groups to ensure alignment with the ongoing national planning processes.

1.4. Structure of the Report

The report is outlined in five Sections. Following this general introduction, the second Section presents findings on the status of Food and Nutrition Security in Rwanda. In Section three, national policy and programmatic responses have been described in terms of policies, strategies, programmes, activities, financial resources, and institutional arrangements and capacity gaps in implementing food and nutrition security policies and strategies. Section four builds on findings in the previous two sections to draw from and show existing gaps in terms of policy framework, programme design and implementation, gaps in resourcing, and institutional capacity gaps. The report ends with conclusions and policy recommendations on how to improve the current policy response on Food and Nutrition Security in Rwanda.

2. Situation Analysis of Food and Nutrition Security in Rwanda

2.1. National Context

Rwanda is a land-locked country with a population of more than 11 million, of whom 52% are women. The country's population density is the highest in Africa, measuring 448 people per Km². The Rwandan population's growth rate is about 2.6% of the natural growth rate. About 84% of the population lives in rural areas. Among the total urban population, 49% live in the city of Kigali, the capital of the country. Notably, the urban population is growing at a faster rate than the rural population: between 2012 and 2015, the urban population increased from 1.7 million to an estimated 2.1 million. Rwanda's population is generally young, with 43.4% of all Rwandans falling under the age of 15 according to the RPHC4 (NISR, 2015).

Over the last decade, Rwanda has seen impressive and sustained economic growth and poverty reduction, with an average annual economic growth rate of around 8%, a poverty reduction rate of 5.8% and an extreme poverty reduction rate of 7.8% between 2010/11 and 2013/14. Rwanda's economy is growing with the agriculture sector now contributing 33% of total GDP compared to 14% by the industrial sector and 47% by the Service Sector. Rwanda's real growth between 2010 and 2014, has been primarily driven by the service sector. The real GDP growth rate in 2016 for the service sector was 8.5% compared to 4% for the industrial sector and 5% for the agriculture sector (Government of Rwanda, 2016; BNR, 2016). This economic growth is also coupled with high stability, which has made Rwanda among the Africa Stable Grower Countries (McKinsey Global Institute's report, 2016). According to the World Bank (2011), Rwanda has a prudent fiscal stance with a strong focus on priority expenditures complimented by continued high grant financing from donors. These factors have contributed to the country's remarkably stable macroeconomic framework in a difficult external post-crisis environment. Rwanda's economic growth is projected to continue increasing based on a stable macro-economic framework and implementation of priority policies in the areas of agricultural productivity, export capacity, domestic resource mobilization, and expenditure prioritization, among others (World Bank, 2011).

Furthermore, the country's landscape for external investment is stable and friendly. Rwanda is ranked 62 globally and 2nd in Africa by the Easy Doing Business World Bank's reports. In Rwanda, the time required to register a private company has been reduced from 18 days to around three in 2013 (World Bank and IFC, 2013) and today, to 24 hours, through a single requirement procedure at the Rwanda Development Board (RDB).

Rwanda's development model is becoming increasingly inclusive. Income and wealth inequalities have reduced, as evidenced by the GINI Coefficient values measuring 0.522 in 2005 and 0.448 in 2014. The Government has initiated and implemented more inclusive programmes in the education sector (nine years basic education- 9YBE, twelve years basic education- 12YBE, and school feeding); in the health sector (e.g. community health insurance scheme known as *Mutuelle de Santé* which now has a coverage of around 80% and the Community Health Workers program); in Agriculture (e.g. the Crop Intensification Programme which includes components of land use consolidation, input subsidies, and community based extension services known as "*Twigire Muhinzi*"); and in the promotion of access to inclusive financial services (currently financial inclusion is estimated at 89% due mainly to diversified financial services and products) (BNR, 2016).

Rwanda has been implementing a number of home grown initiatives of social protection programmes aimed at boosting poverty alleviation among the population's lower quintile. Some of these initiatives have direct influence on food and nutrition security. These include Vision 2020 Umurenge with its three pillars (direct support, creation of jobs through public works, and financial services); the Girinka one

cow per poor family programme where economically-disadvantaged families are provided with cows mainly to improve nutrition and agricultural productivity; the “*Ubudehe*” scheme- a community based scheme through which poverty categorizations are connected to necessary programme interventions A detailed overview of social protection in relation to food and nutrition security in Rwanda is presented in Appendix n° 3.

With a robust and widely implemented legal framework, positive political will, and widely decentralized governance and gender equality, Rwanda is uniquely situated to be the foremost African country in guaranteeing property rights to women (Jones-Casey et al., 2015). Today, due to the Succession Law of 1999, the 2004 Land Policy and 2013 land law (2013), as well as other related legal and policy reforms, women now have equal rights to inheritance and all aspects of land acquisition, registration and management. However, due to patriarchal power and cultural beliefs, the control of resources and high -value assets, including land, remains challenging. Married women under community of property matrimonial regimes, are joint owners of property, and are the first successors to the share of joint property when their spouses die. Furthermore, female representation on high decision-making levels is significant, with an estimated 64% representation in the National Parliament and 43.1% in District Councils. A detailed overview of Gender as linked to food and nutrition security in Rwanda is shown in Appendix n° 4.

Significant progress has been made in terms of ICT- based services with special youth programmes and the decentralization of the government administration. The Village level is now the administrative entity where most decisions are made and where people participate in the design and implementation of social and economic programs. The country has instituted various accountability mechanisms including the establishment of the Parliament’s Public Account Committee (PAC), internal and external audit systems, independent procurement/tender committees within public entities (GoR-PMO, 2010), and the performance contract (*Imihigo*) system.

With respect to its political context, Rwanda has a unique political system characteristic of law enforcement, opposition to injustice, gender based violence in all its forms, corruption, and the respect of human rights. Countering genocide ideology is a core activity that has featured different political interventions especially during the period following the 1994 Genocide against the Tutsi. The use of traditional courts known as “*Gacaca*” as transitional justice and “*Inteko z’abatuye*,” have allowed the country to address court cases that would usually be addressed by formal courts. This justice system is also considered a home-grown solution for the country. Car seat, musical instrument, train

2.2. Food and nutrition security situation analysis along SDG 2 targets

The following sub-section describes the current status of food and nutrition security in Rwanda with reference to SDG 2 which states “End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture.” This goal includes the four dimensions of FNS: food availability, accessibility, utilization, and sustainability. The extent to which Rwanda’s national policy and development frameworks include the SDG 2 indicators, is shown in Appendix n° 10. According to the National Food and Nutrition Policy (2103-2018), Food Security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

This pillar is reflected in SDG 2 targets 2.1, 2.3, 2.4, and 2.5. These targets emphasize the need to ensure sufficient food, increased productivity, resilient agricultural practices, and improved and diversified genetic seeds. In this respect, since 2009, Rwanda’s food balance sheet has shown consistent improvements derived from a steady increase in the country’s level of self-sufficiency (NISR, 2016). Additionally, results of the Comprehensive Food Security and Vulnerability Analysis and Nutrition Survey in Rwanda (CFSVA, WFP et al., 2016) show that 40% of the population is food secure, 40%

are marginally food secure, 17% are moderately food insecure, and 3% are severely food insecure.

Furthermore, the Seasonal Agricultural Survey (SAS) which is regularly conducted by NISR, provides approximate data on land productivity (yield/ha), total production (Metric Tons), levels of agricultural input usage (seeds, organic and inorganic fertilizers, irrigation and mechanization) and the use of crop production. However, the SAS report lacks information on livestock, agricultural performance, and climate variability. Moreover, the report excludes any further analysis on the status of key food security indicators (e.g. per capita energy, proteins and lipids), as well as Rwanda's overall food balance sheets. This information is critical to improving the quality of food security estimates. The following Table (n° 1) presents the production estimates of main crops during 2016.

Table n° 1. Production of main crops in 2016 (MT)

Crop category	Agriculture Operators		Total Rwanda	Percentage weight
	Small scale farmers	Large scale farmers		
			—	—
Cereals	342,689	60, 059.2	402,748	11.0
Tubers and Roots	1,357,754	3,902.8	1,361,656	37.3
Banana	1,004,431	1,502.0	1,005,934	27.6
Legumes and Pulses	277,528	1,489.0	279,017	7.6
Vegetables and Fruits	169,168	2,878.9	172,047	4.7
Other crops	419,121	10,276.6	429,398	11.8
All Rwanda	3,570,691	80,109	3,650,799	100

Source: Adapted from NISR (2016). Seasonal Agricultural Survey, NISR, Kigali, Rwanda

An analysis of the data in Table 1 shows that Rwanda's food basket is dominated by tuber and root crops (37.3%), bananas (27.6%) and cereals (11%). Legume and pulse crops (7.6%), as well as vegetables and fruits (4.7%), represent small proportions of the overall food basket although they provide essential vitamins.

According to the Crop Assessment Report for the season 2014B (MINAGRI, 2014), the per capita energy consumption of an average person per day, was estimated at 2,754 Kcal, compared to the standard energy requirement of 2,500 Kcal/capita/day. Furthermore, according to the report, protein and lipid availability levels measured 69 and 31 g/capita /day, respectively. The assessment also reported a national food balance sheet with a surplus of 388,000 MT. Unfortunately, data on imports, exports, food aid and stocks were not included in these calculations (MINAGRI, 2014).

An alternative measurement of food availability used in this study, is a trend analysis of food imports and exports. Food products are the main components of imported consumer goods in Rwanda with a share of 47.6% in value and 80.5% in volume compared to other consumer goods which measure 52.4% in value and 19.5% in volume (BNR, 2017). As shown in Table 2, during the period of January to May 2017, the volume of food imports increased by 27.3 % compared to 6.3% in 2016 (BNR, 2017).

Table no 2. Import developments in % change

	2016Q1		2017Q1		Jan.-May 2016		Jan.-May 2017	
	Value	Volume	Value	Volume	Value	Volume	Value	Volume
Total Imports	-5.0	0.8	5.9	-1.9	1.0	6.4	-0.9	-9.2
Consumer goods	9.7	24.4	5.0	-10.8	19.9	8.3	-5.7	-8.2
Food products	15.4	36.0	7.7	-9.1	26.4	6.3	-1.6	27.3
Health and care	2.7	3.7	-18.4	-2.2	17.4	1.8	-13.7	-11.4
Domestic articles	4.3	-34.4	-29.3	-5.0	-26.7	-30.5	-6.3	-37.1
Capital goods	-1.6	27.2	42.0	-20.5	28.5	35.2	-24.2	-22.4
Transport Materials	9.1	82.4	33.4	-11.6	76.2	43.7	-17.3	9.7
Machines, devices and tools	-3.3	24.5	63.4	-34.1	25.0	44.0	-33.2	-30.5
Intermediary goods	-17.2	-20.9	-14.5	8.2	-14.6	-12.0	6.3	-5.4
Construction materials	-29.5	-32.7	-16.7	-11.9	-30.1	-20.1	-15.1	-29.2
Industrial products	3.2	0.3	-9.7	32.0	12.5	-8.5	35.2	12.8
Fertilizers	-22.4	-34.0	-40.1	0.7	-5.6	-1.4	-24.9	-27.9
Energy and lubricants	0.4	23.2	-12.8	-0.9	6.9	-15.1	-2.2	24.9
Petroleum products	-3.5	3.1	-16.1	4.2	3.1	-16.7	1.3	25.3
Petroleum products	-3.5	3.1	-16.1	4.2	32.8	0.8	-19.0	0.5

Source: BNR, Statistics Department, 2017

Considering the progress made to date on the production targets of relevant crops under the PSTA-3, (despite the encouraging trend when comparing the baseline conditions and the current status), there are some significant gaps between the 2017/18 targets and the 2014/15 achievements. Additionally, the production progress of some CIP crops falls below 50% of the target; with only paddy rice, beans, and honey production progress measuring above 50% of these crops' respective targets (Table 3). Therefore, continued effort is needed to achieve production goals and ensure sustainable food availability.

Table n° 3. Achievements per selected outputs/outcomes of PSTA-3 relevant for Food and Nutrition Security: Program 3

Program 3. Value Chain Development and Private Sector Investment				
Selected output indicators	Baseline (2012/2013)	Situation (2013/2014)	Situation (2014/2015)	Final Targets (2017/2018 % achievement)
Production				
Maize (MT)		357,180	370,140	1,696,239
*Area (ha)	573.038	233,150	241,713	
*Yield (t/ha)		1.53 T/ha	1.53 T/ha	(21.8%)
Paddy Rice (MT)		72,723	97,437	188,760
*Area (ha)	84.079	137,226	137,696	(51.61%)
* Yield (t/ha)		0.53 T/ha	0.70 T/ha	
Wheat (MT)		7,886	7,995	287,760
*Area (ha)	75.913	10,862	10,115	(2.7%)
* Yield (t/ha)		0.72 T/ha	0.79 T/ha	
Sorghum (MT)		140,578	140,844	
*Area (ha)		23,770	26,401	(-)
* Yield (t/ha)		5.91 T/ha	5.33 T/ha	
Beans (MT)	452.828	407.830	436.342	749.381 (58.2%)
Irish Potatoes (MT)	2.172.421	603.165	662.025	4001.225 (16.5%)
Dairy and meat (MT)	74.519	81.087	86.348	201.033 (42.9%)
Fish (MT)	17.000	24.594	27.000	112.000 (24.2%)
Honey (MT)	3.221		4.585	8.695 (52.7%)
Market infrastructure				
Post-harvest loses reduced for priority crops	22% Maize 15% rice 26% wheat	—	9,4% Maize 8,6% rice 7,8% wheat	5% Maize 5% rice 5% wheat

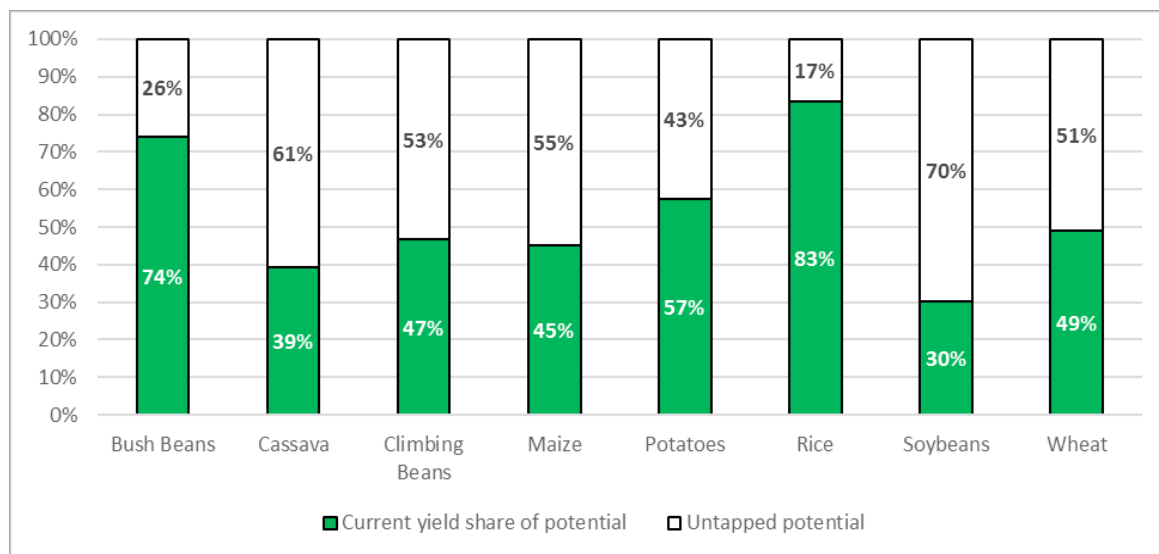
Source: Strategic Plan for the Transformation of Agriculture in Rwanda, Phase III (MINAGRI, 2013)

The Government and its development partners have been implementing a number of flagship programs that support crop and livestock production and productivity for smallholder farmers (SHF) in Rwanda. Most of these programs are linked to Program 1 of PSTA-3 on Agriculture and Animal Resource Intensification which focuses mostly on agriculture resources. A recent assessment by the Ministry of Finance and Economic Planning (MINECOFIN) on “Public Expenditure Assignments” in the agriculture sector, indicated that Programme 1 accounted for 73.7% of the budget allocated to the agriculture sector in 2011- 2015 (MINECOFIN, 2016). The following section summarizes the main Government programs which support the improvement of agricultural and livestock farming systems among SHFs. Further details on program targeting, coverage and delivery mechanisms are provided in section 3.3.

(a) Key support programs for agriculture productivity

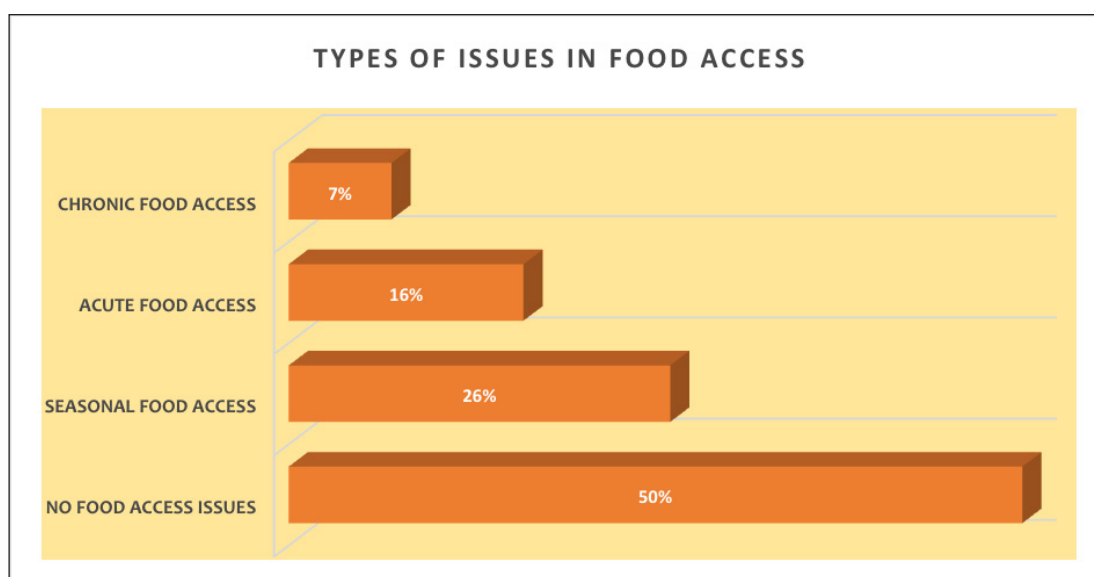
-*Crop intensification programs (CIP):* MINAGRI and its partners first started CIP in September 2007. CIP currently focuses on several priority crops including maize, wheat, rice, Irish potato, beans, cassava and horticulture. Under this program, farmers synchronize their crop cultivation on land which is consolidated and rearranged to form larger and more rational holdings. Farm inputs such as improved seeds and fertilizers are either imported or produced locally and then distributed to farmers through public-private partnerships and Government subsidies. Complimentary extension services covering input usage and improved agriculture practices, are then delivered to farmers. As a result, crop productivity has increased. Specifically, maize and wheat production levels have increased by six-fold, while Irish potatoes and cassava levels have tripled. Additionally, rice and bean production levels have increased by 30% within the first four years of CIP implementation. These production outputs have pushed Rwanda to the verge of becoming a food secure country (MINAGRI, 2014; Mbonigaba et al., 2013). However, significant yield gaps exist for most crops supported by CIP, ranging from 17% for rice and 70% for soybeans (MINAGRI, 2017) (see Figure 1).

Figure n° 1. Yield gaps for priority crops under the Crop Intensification Program



Source: MINAGRI (2017). Draft PSTA-4 presentation.

Figure n° 2. Types of Issues to Food Access in Rwanda



Source: Data obtained from CFSVA -2015 (NISR, 2016).

Therefore, apart from production levels and individual's purchasing power; other important factors influencing access to food include physical access to markets, market infrastructure, and the use of post-harvest handling facilities. A 2014 study by Bizozza and Ngabo although at a small-scale level, identified physical market accessibility and market affordability as important determinants of food security in Nyabihu District. The same study shows an average marketing efficiency of 64%; the higher is this efficiency, the lesser are the transaction costs (transport costs and distance to the nearest market).

From a programme perspective, the PSTA-3 currently under review, envisions the provision of efficient and equitable transport systems across crop producing areas. This has been promoted through investing in the improved marketing costs for staples and high value crops and reducing transport costs through the development of feeder roads. Secondly, the programme has considered reducing staple crop post-harvest losses. This is being accomplished through: (1) the use of modest drying grounds and temporary stores, (2) operational post-harvest facilities managed by cooperatives, (3) the construction of modern storage facilities and crop/milk collection centres, (4) and the construction of processing plants. Currently, Rwanda has 261 crop driers, 15 transit warehouses (seven with a storage capacity of 1500 MT and eight with a storage capacity of 1000 MT), 191 warehouses, and 60 new Milk Collection Centres which were constructed over the last 7 years (IPAR, 2017). All these facilities are being operationalized to improve the marketing efficiency and overall crop value chains, especially at the post-harvest level.

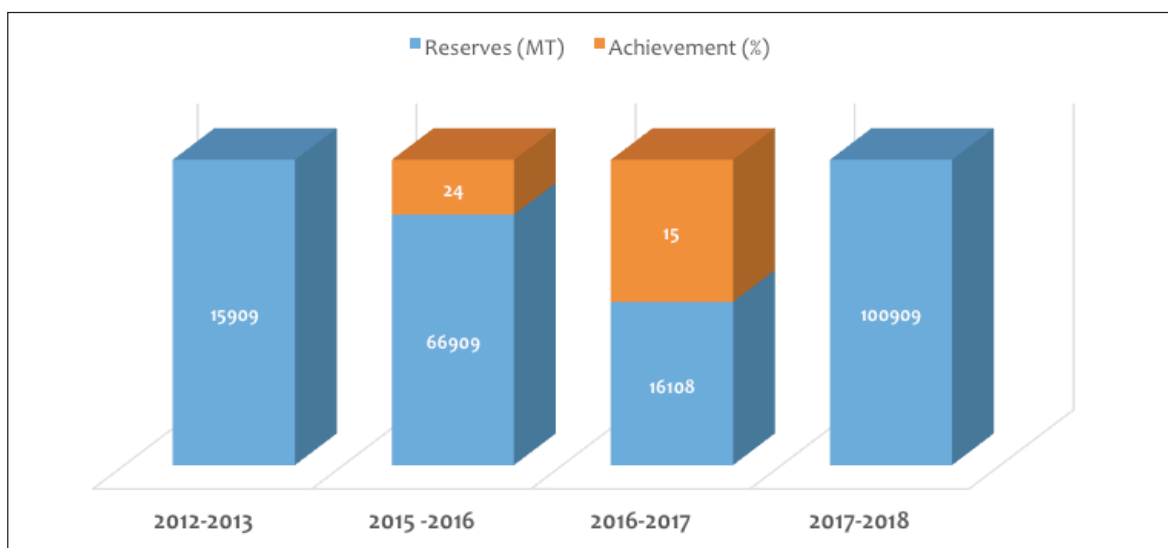
Other flagship programs implemented by the Government and Development Partners which aim to enhance food accessibility in Rwanda include: (i) the national strategic grain reserve which has been established to address potential shocks in food supply; (ii) the Purchase for Progress Program (P4P) which aims to promote crop marketing for smallholder farmers in Rwanda; (iii) the Farm to Market Alliance (FtMA); (iii) and E-Soko which focuses on access to market information systems. FTMA is a new initiative (currently being implemented in Rwanda and Tanzania in the Eastern Africa Region) that aims to support smallholder farmers to move from subsistence farming to market-oriented agriculture by connecting farmers to commercial markets, and by further helping them to secure formal contracts. These contracts help farmers to access credit, resources and services necessary to plant and harvest quality crops, which in turn boosts income levels and builds long-term resilience. On the other hand, P4P focuses on supporting the Government's efforts to boost agricultural production, increasing the income of smallholder

farmers and developing the agricultural market. In order to reduce post-harvest losses, P4P and other partners support farmers' cooperatives with training in post-harvest handling, equipment and storage facilities. Cooperatives also receive training aimed at strengthening their marketing and institutional capacity, and in financial management, to assist them in accessing finance.

PSTA-4 (under development) presents the perspective that "accessibility of food will be enhanced though higher household incomes combined with greater resilience to market and production shocks. Improved resilience to production and market risks, through improved storage, early warning and market information systems and insurance schemes, will further contribute to improved accessibility of food" (MINAGRI, 2017). For this to happen, linkages between production and processing will need to be made through improved input markets, crop insurance and access to finance. Currently, the rate of farmers who have access to inputs is very low (only 4.6% of farmers use improved seeds and only 15% use inorganic fertilizers – SAS (2017 B) coupled by low levels of credit allocated to agriculture (estimated at 5.2% in 2017) (MINAGRI, 2017). Therefore, access to food will be achieved when all households have sufficient resources to obtain appropriate food (through production, purchase, and direct support under social protection) for a nutritious diet.

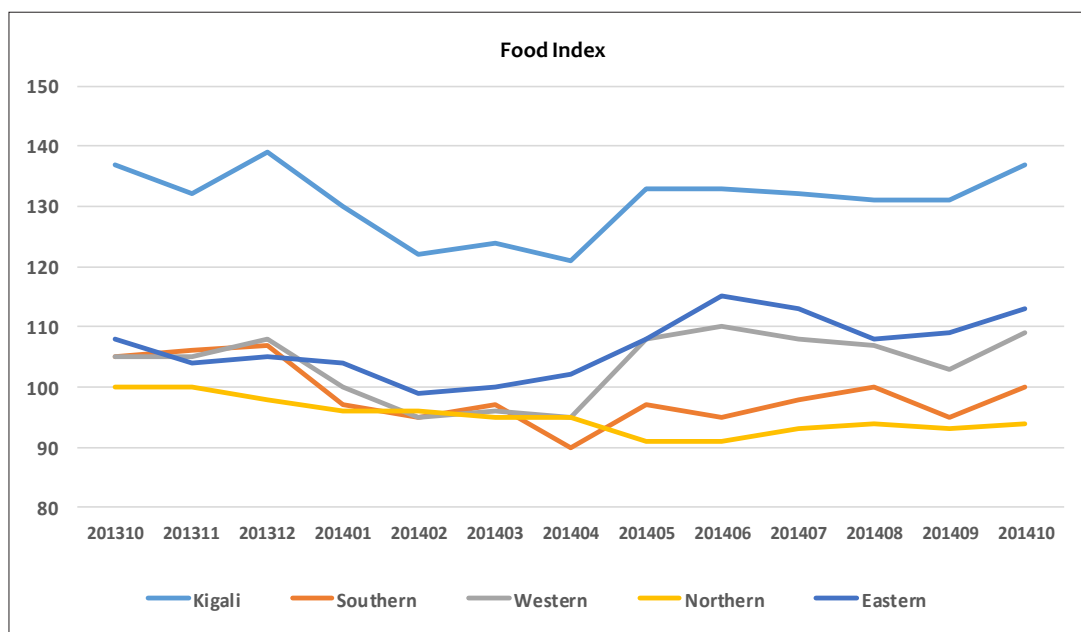
Regarding the national strategic grain reserve, the EDPRS-2 mid-term evaluation, revealed that the achievement of targets for major grain crops is still lagging behind what was anticipated. Figure 3 indicates that only 24% of maize and bean reserves were achieved in 2015/16 and 15% in 2016/2017, compared to 2017/2018 when the target was reached.

Figure n° 3. Trends in achievements of food reserves (Maize and Beans in %)



The food index, a component of the cost of living index, is another important indicator to measure food accessibility. The index shows (see Figure 4) spatial and temporal variation characteristics across Rwanda's four Provinces and the City of Kigali. Kigali, which is the most urbanized Province, has the highest food prices in comparison to the Northern and Eastern Provinces, where most of the country's food production takes place. Likewise, July to September witnessed higher prices which generally corresponded to the cultivation periods when food supplies are low. In comparison, January to March experienced the lowest prices, corresponding to the main harvest period when food supply is high (NISR, 2015).

Figure n° 4. Food Index for the EICV4 period: from October 2013 to October 2014



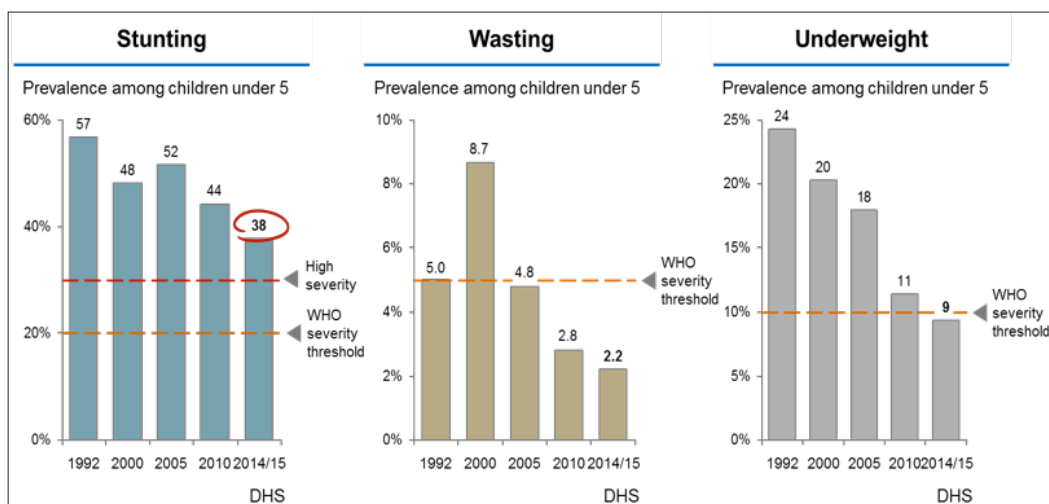
SDG-2.2 stipulates that by 2030, countries should “End all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and elderly persons”.

While nutrition security requires having enough of the right foods, it also requires having access to adequate feeding, caregiving and hygiene practices, as well as access to health, water and sanitation services. Nutrition security therefore depends on the ability of an individual to consume a healthy diet composed of all the nutrients required for a healthy life so that the body can function at its optimal level.

Unfortunately, malnutrition continues to be widespread, especially among children under 5 in Rwanda. A detailed overview of the nutrition status in Rwanda is presented under Appendix n° 2. According to the 2015 Rwanda DHS, chronic malnutrition (stunting or low height for age) affects 38% of children under 5, reducing good health and affecting mental and developmental growth. Underweight (low weight for age) affects 9% of children under 5 while wasting, (acute malnutrition or low weight for height) which is associated with a high death rate, affects 2.2% of children under 5 (wasting rates <5% are considered within an acceptable range). Compared to the 2005 and 2010 DHS, stunting was 51% and 44%, underweight 18% and 11%, and wasting 5% and 2.8%, respectively. Despite remarkable improvements in children’s nutritional status, stunting remains alarmingly high, measuring above the WHO’s high severity threshold levels (Figure 5). Singularly, wasting is on track to meet the 2018 HSSP-3 targets (Figure 6).

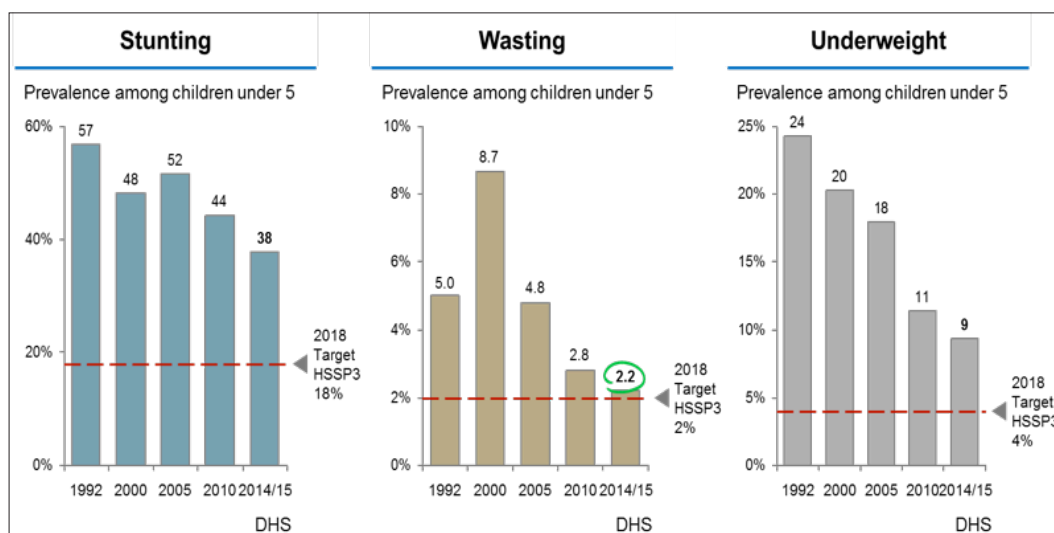
Prevention against stunting requires all actors to coordinate their work together. The Government is collaborating with development partners to implement the National Food and Nutrition Strategic Plan (NFNSP, 2013-2018) in which stunting prevention is a priority area. Chronic malnutrition, also known as “stunting,” can develop during pregnancy when the mother does not have adequate food and care. Stunting may also occur during early childhood (especially during the first 2 years), if a child suffers from serious or frequent acute malnutrition, is frequently ill or has poor feeding and care. Unfortunately, the progress made since 2010, is not sufficient to meet the HSSP-3’s 2 2018 target, as indicated in Figure 6.

Figure n° 5. Malnutrition among children under 5 years compared to the WHO severity threshold



Source: NISR, RDHS 2010 and RDHS 2014/15

Figure n° 6. Malnutrition among children under 5 years compared to the 2018 HSSP III targets

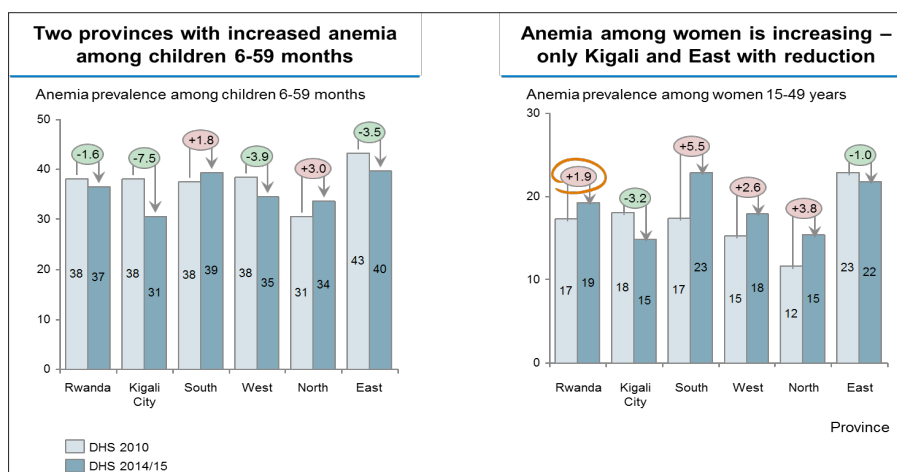


Source: NISR, RDHS 2010 and RDHS 2014/15

Micronutrient deficiencies are also a public health concern in Rwanda. Micronutrients can be obtained from natural foods, fortified foods, or micronutrient supplements. Children who suffer from micronutrient deficiencies early in life, particularly iron and iodine, are at a higher risk of suffering from irreversible impairment of their physical and cognitive development, thereby further extending the cycle of undernutrition and poverty. The critical developmental period is often referred to as the first '1000 days' which includes the time from conception through the first two years of life.

According to the 2015 Demographic and Health Survey, 99.7% of children under 5 live in households that consume iodized salt, while 86% were given vitamin A supplements and 73.5% consume vitamin A rich foods. Unfortunately, only 20% of these households consume iron rich foods. Iron is essential to cognitive development, and low iron intakes can contribute to anemia. Anemia levels in children under 5 are high and the pace of reduction is slow; while steadily increasing in prevalence among women. Currently, anemia affects 37% of Rwandan children under 5, and 19% of women who are of reproductive age (15-49 years) (NISR, 2015). Compared to the 2010 DHS, anemia among children under 5 was 38% and anemia in women between 15-49, was 17% (Figure 7).

Figure n° 7. Prevalence of anemia among children under 5 years and women of reproductive age



Source: NISR, RDHS 2010 and RDHS 2014/15

The primary cause of anaemia among young children is insufficient bioavailable dietary iron which supports rapid growth and brain development. The Rwandan diet is primarily starch based, with plantains, cassava, sweet potatoes and potatoes providing the majority of energy consumed, but excluding any substantial bio-available iron. However, the diet composition trend is changing with increasing urbanization and wealth.

Several ongoing initiatives from the private sector and other organizations aim to improve food utilization in Rwanda and reduce the high rates of malnutrition discussed above. These initiatives include the African Improved Foods (AIF) company which produces high quality food for children under 2 years old, small and medium agro-processors (e.g. Inyange Industries, Azam, Sina Gerard, Duhamic ADRI, etc.), and the development and dissemination of bio-fortified crops (e.g. Iron and zinc-rich beans, Orange Flesh Sweet Potato, Orange maize, etc.).

A recent study on nutrition, markets and gender analysis conducted in nine Districts of Rwanda, concluded that having sufficient and diverse foods is protective but that food alone is not sufficient to eradicate stunting in Rwandan households (Lung'aho et al, 2015). Other factors include (i) access to quality water, health services and sanitation (WASH); and (ii) the care practices of women and children. Access to improved sources of water and access to potable water was identified as extremely important in reducing the risk of stunting among children. WASH has both soft and hard components for achieving food and nutrition security. Despite the fact that the country has made good progress in increasing access to clean water sources in rural areas (84.8%) and urban areas (90%) (EICV4), access to clean water for the purpose of drinking is still a challenge. Forty-seven percent of people living in rural areas have access to water within 500 m of their residence while 61% of those living in urban areas (have access to water within 200m of their residence., Consequently, this factor of distance, increases the burden on women and children who are generally responsible for fetching water. Furthermore, households with access to improved and unshared sanitation facilities are estimated at 67% in rural areas and 47% in urban areas. The mid-term EDPRS-2 showed that 83.4% of rural populations have improved sanitation compared to 95% living in urban areas (MINECOFIN, 2017).

Regarding care practices of women and children (i.e. breastfeeding, appropriate complementary feeding, health-seeking behaviours, etc.), poor practices can lead to poor dietary intake practices and increased infection, both of which are underlying causes of undernutrition. According to Lung'aho et al. (2015), children whose mothers attended antenatal care were 42% less likely to have stunted growth, compared to mothers who did not attend antenatal care.

However, it is relevant to mention that by the SDG horizon 2030, Rwanda, like many other African countries, will most likely be struggling with over nutrition, overweight and obesity as other forms of malnutrition. Currently, this problem already exists in low rates, especially in urban areas, calling for a national strategy to fight obesity and overweight. More detailed information on the status of obesity in Rwanda is provided in Appendix n° 2.

Food stability refers to the ability to obtain food consistently over time. Food insecurity can be transitory, seasonal, or chronic. In transitory food insecurity, food may be unavailable during certain periods of time. At the food production level, natural disasters and drought result in crop failure and decreased food availability. Civil conflicts can also decrease access to food. Unstable markets can result in food-price spikes, causing transitory food insecurity. Additional factors which can cause temporary food insecurity, are loss of employment or productivity, which can be caused by illness among other factors. Seasonal food insecurity can result from the natural growing season patterns of food production.

SDG target 2.4. calls for “sustainable food production systems and implementation of resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.” As indicated previously, Rwanda has made tremendous progress in increasing food availability to its populace through the successful implementation of flagship programs such as CIP, erosion control and land-husbandry, dairy promotion through animal genetic improvements, meat production, post-harvest handling and storage, etc. However, year-round availability of food remains an important constraint. The drought that occurred during the last two years in Rwanda, seriously affected both crop and animal producer households in most parts of the country (mainly in the Eastern and Southern provinces). Due to the high rate of shocks and disaster-induced food insecurity in Rwanda which disproportionately impacts poor households, a shock-responsive/sensitive social protection system is needed to strengthen risk mitigation and rapid response systems. This is important to sustain efforts towards poverty reduction through the social safety nets programmes (described under section 3). In implementing the social protection strategy, it is crucial to also identify the enabling and restraining factors necessary for effective strategy implementation. These factors can be addressed by early warning, contingency plans, financing and adequate institutional arrangements aimed to capacitate the system to respond adequately to potential shocks. The present technical working group and cluster meetings are among the existing entities responsible for coordinating all initiatives in this regard.

Furthermore, Rwanda’s current production systems (growing selected crops on consolidated areas under CIP and by region) are very similar, with harmonized cropping calendars, unified seed usage, fertilizers and cropping techniques. While these similarities are conducive to quicker advancement in terms of technology penetration and access to markets, they can also increase the seasonality of crop production and the risk of shocks (all risks are taken on the same basis). A harmonized production system therefore has an impact on the stability of production and access through the aligned seasonality of prices. This also implies the need for more flexibility in the use of risk mitigation techniques for staple crop production, including the diversification of production methods in a given area, the use of mixed-cropping techniques, crop rotation, diversification of calendars, and a focus on of small-scale irrigation and optimum exploitation of existing low lands (small and medium marshlands). The SDG 2.4.1 indicator emphasizes the promotion of “sustainable agriculture practices”. Efforts for year-round production, including growing short-duration and drought-tolerant crops during the dry season “C”, would strengthen production volumes.

Resilience and risk mitigation strategies for food production systems in Rwanda require continuous development, particularly at the household level. Importantly, increased resilience of the productive system (including productive assets and people) is a key determinant for better stability food systems and food accessibility. Resilience is partly determined by the production system, as emphasized above,

and also by diversification and integration with other sub-programs such as agroforestry, livestock, fish farming, etc. Other issues discussed in previous sections including high commodity prices, limited purchasing power and lack of sufficient storage capacities, not only affect access, but also the stability of food in Rwanda.

Implementing sustainable crop and livestock production, forestry, fisheries and aquaculture in Rwanda is central to achieving many of the SDGs. These achievements will directly affect the success of SDG-1 (end extreme poverty); SDG 2 (zero hunger, improved nutrition and sustainable agriculture); SDG-3 (health); SDG-6 (water and sanitation); SDG-13 (climate action); SDG-14 (marine ecosystems) and SDG-15 (terrestrial ecosystems, forests and land). It will also influence the outcome of several other goals and targets related to employment, gender equality, access to resources, responsible consumption and production and the achievement of SDG-17 (partnering for sustainable development).

The Paris Agreement of the United Nations Framework Convention on Climate Change, reinforces member states 'Commitment to a transformative process that addresses a range of SDGs, recognizing that climate change and sustainable development are inextricably linked.' The agriculture sector is featured prominently in the intended nationally determined contributions transmitted ahead of the Paris conference. Notably, about 94% percent of the countries included agriculture, forestry and land use in their mitigation and/or adaptation contributions.

With regard to sustainable agricultural production and animal intensification, the Government and development partners, have developed and implemented three consecutive generations of the Strategic Plan for Agricultural Transformation in Rwanda (PSTA-1, PSTA-2, PSTA-3). All of these initiatives have aimed at harmonizing the agriculture sector's development activities with the national Economic Development and Poverty Reduction Strategy (EDPRS-1 & EDRPS-2) and the long-term development vision (Vision- 2020).

PSTA-3 specifically focuses on the (i) sustainable intensification of food production to ensure the envisaged reductions in rural poverty and malnutrition and (ii) greater involvement of the private sector to increase agricultural exports, processing, value addition and sustainable agriculture mechanization systems. Concurrently, and as repeatedly emphasized by the Government, sectorial approaches and interventions require occasional reviews to identify and formulate lessons learned and drive improved strategic planning, budgeting and coordination. This emphasis on reviews is the main reason for the mid-term assessment of PSTA-3, conducted in 2016. The following Tables (4 and 5) provide a snapshot of the sustainable agriculture and animal resource intensification achievements per relevant output/outcome under PSTA-3.

The progress made thus far on achieving the output indicators listed in these tables, shows positive growth. Most output indicators have been achieved at more than 90%. However, the majority of these achievements are Government-led. Areas directly related to smallholder farmers have moderate to low achievement. These include quantities of imported fertilizers (46.9%), local certified and imported hybrid maize seeds (24.8%), and milk yields (47.5%). Another area that requires additional focus from Government and development partners is increased access to extension services. Although the target of extension coverage (ratio of extension agent by farmer households is 1/600) must be achieved at 100%, the targeted number of farmer promoters remains low compared to the level of achievement (31.2%) (Table 4).

Overall, the ongoing flagship interventions led by the Government and partners (as described in the above sub-sections), on food availability (e.g. sustainable crop intensification, irrigation, land-husbandry, ISFM, access and use of quality inputs, etc.), accessibility (e.g. post-harvest management, storage facilities, collection centres, small-scale processing units, access to market information, produce off-taking opportunities, food price regulation, etc.) and utilization (e.g. Government subsidy on fortified and bio-fortified food items, improved access to WASH, women's education and empowerment, etc.) need to be sustained and scaled-up to ensure food stability at the household level.

Table n° 4. Achievements per selected outputs/outcomes of PSTA-3 relevant for Food and Nutrition Security: program 1

Program 1. Sustainable Agriculture and Animal Resources Intensification					
Selected Output Indicators	Output indicator	Baseline (2012/2013)	Situation (14/15 or 15/16)	Final Targets (2017/2018)	Achievements (%)
Land conservation	Radical Terracing (ha)	46.246	91.869 (15/16)	104.731	87.72
	Progressive Terracing (with agroforestry) (ha)	802.292	915.706 (15/16)	1.054.661	86.82
	% of coverage and effectiveness of soil conservation infrastructures	73%	83% (14/15)	91%	91.21
Irrigation infrastructure	Hillside Irrigation (ha)	3.075	8.392 (15/16)	15.075	55.67
	Marshland Irrigation development (ha)	24.721	35018 (Im 15/16)	39.721	88.16
	Small-scale Irrigation Schemes (ha)	100	1689 (Im 15/16)	2500	67.56
Mechanization	% of agricultural farm operations, mechanized	12%	14%	25%	56.00
Improve soil fertility	Kg of inorganic fertilizer used/ha/year	29 kg/ha/year	31 kg/ha/year (2014/15)	45 kg/ha/year	68.89
	MT/yr. inorganic fertilizer imported	36.000	28.035 (14/15)	59.741	46.93
Lime Distribution: (new activity after PSTAIII was written)	Subsidized Lime bought by farmers (MT/yr.)	No baseline	19.012 (Im 15/16)	No target	—
Seed improvement	Local certified maize seed production (MT/yr.)	3.044	2.300 (Im 15/16)	9.260	24.84
Livestock development	N° cows distributed to beneficiaries under Girinka Program	139.204	219.139 (14/15)	350.000	62.61
	Milk yield (liters/cow/day)	4	5,7 (14/15)	12	47.50
	Total milk produced per year (MT)	475.690	706.000 (14/15)	723.831	97.54

Table n° 5. Achievements per selected outputs/outcomes of PSTA-3 relevant for Food and Nutrition Security: program 2

Program 2. Research and Technology Transfer, Advisory Services and Professionalization				
Selected Output Indicators	Output indicator	Baseline (2012/2013)	Situation (14/15 or 15/16)	Final Targets (2017/2018)
Extension coverage	Ratio extension agent/farmer household	1/839	1/600	1/600
Increased number of farmers accessing enhanced extension services	No. of qualified farmer field school Facilitators	2500	2500	8000
	No. of farmer promoters in place disaggregated by sex*	11,127	14.056	14.837
Farmer Cooperatives	% of farmers in Cooperatives (FC) and farmer organizations (as % of total farmers)	1.877 FC 23% members of Cooperatives	2.342 FC 38% members of Cooperatives	2.500 FC 50% members of Cooperatives

*One critical observation from the above Table (5), is that the gender aspect remains overlooked even for indicators that are gender sensitive, while baselines, targets and reporting remain gender-blind. It is therefore crucial to ensure that gender equality is taken into consideration, especially in the result frameworks for monitoring progress and ensuring that both men and women benefit equally from the same rights (women represent 92% of farmers in rural populations).

3. National policy and programmatic response of government and partners to FNS in Rwanda

It is critical to first understand Rwanda's policy environment before drawing lessons on how the Government and development partners are responding to FNS issues. Boosting agricultural productivity and improving food security are priority and foundational issues under Rwanda's Vision 2020 and the EDPRS-2, which includes child undernutrition as a key indicator to monitor. This section, assesses the current policy and programmatic responses to issues restraining food and nutrition security in Rwanda. It also describes key programmes and implementation activities pertinent to FNS, financial resources for FNS, as well as institutional arrangements and capacities. The content of this section and the previous two sections, help to identify the policy response gaps to be discussed under section 4.

3.1. Stakeholders for FNS in Rwanda

Overall, there are a growing number of stakeholders in Rwanda who are working to end hunger and undernutrition. According to the Renewed Effort Against Child Hunger and Undernutrition (REACH) Stakeholder and Action Mapping exercise conducted in 2015, 65 food and nutrition stakeholders from Government, UN agencies, research, civil society, bilateral and multilateral donors, private sector, and other development partners, are working at national and subnational levels to support FNS interventions. The table presented in Appendix n° 5 gives a snapshot of current key stakeholders in relation to their strategies, programs and action plans.

3.2. FNS in national planning

Food and nutrition are considered foundational issues of Rwanda's EDPRS-2. FNS development goals are captured and acknowledged first in the NFNP (2013) and again reiterated in the 7YGP (2010-2017), EDPRS-2 (2013-2018), the NFNSP (2013-2018), the third Health Sector Strategic Plan (HSSP-3, 2012-2018), and PSTA-3 (2013-2018). Food and nutrition issues outlined in these strategic documents, include a high prevalence of child stunting, high levels of anemia among children and women, and insufficient food intake levels, among others. Furthermore, the understanding and nature of FNS interventions are shifting from a purely agriculture and health related framework, to prioritization in other sectors which are increasingly accommodating various dimensions of FNS in their respective policies and strategies. This inclusion further enforces the need to link household FNS to social protection, education, safe water, hygiene and sanitation, gender, family issues, and emergency and disaster management. Adequate and integrated approaches from these multi-sectors are expected to substantially reduce the prevalence of stunting in children under two years of age, and to improve household food security, particularly among the most vulnerable families. The table shown in Appendix n° 6 describes these relevant policies/ strategies in terms of their goals, key development targets, and major observations on the inter-linkage between the sectors.

Furthermore, data used to inform the FNS planning process on are drawn mainly from existing reporting and data collection tools already being used on a regular basis. These include: (i) the Integrated Household Living Conditions Survey (now EICV4); (ii) the Demographic Health Survey (now DHS, 2015); (iii) and the Comprehensive Food Security and Vulnerability Analysis (now WFP, 2015). These three surveys provide valuable information necessary for planning and tracking progress made against food and nutrition targets. However, the surveys' timeframes range from three to five years which may cause some lags in providing baselines or bench marks in policy planning and interventions. However, the 2016 SAS the annual planning and evaluation of performance contracts "*Imihigo*", as well as the annual sector backward looking reports, constitute alternative options in providing data for any planning exercise. Punctual studies at limited scale are also conducted to inform evidence-based planning and policy refinement.

Since its inception, Vision 2020, has guided the long-term development of Rwanda. The vision came as a result of national consultative processes in 1999 and again as a revised version based on further consultation in 2012. The overarching goal of Vision 2020 is to transform Rwanda into a middle-income country by 2020 with a per capita GDP of \$1,240, an average GDP growth rate of 11.5%, a reduction in poverty to levels below 20%; the achievement of reaching “upper income country” status by 2035 (USD 4,035) and “high income country” status by 2050. Consultations have already begun to inform the design of Vision 2050. Within the vision, two pillars reflect the interventions needed to respond to FNS issues (pillar number 2: Human Resource Development & Knowledge-Based Economy as well as pillar number 5: Productive & Market Oriented Agriculture). Currently, under the Vision’s key indicators which are linked to the aforementioned pillars, five in particular, are regularly monitored to assess the status of the Vision’s implementation (see Table 6).

The second edition of EDPRS (2013-18) stems from Rwanda’s Vision 2020 and translates it into mid-term interventions and targets. Among the EDPRS-2’s four thematic areas of the area of “Rural Development” integrates the need to improve the status of FNS through its four priority areas: (i) integrated approach to land use and human settlements; (ii) increased agricultural productivity; (iii) enabled graduation from extreme poverty by particularly linking the poorest to economic activities; and (iv) connected rural communities to economic activities through improved infrastructure.

Table n° 6. Vision 2020 indicators and targets relevant to Food and Nutrition Security

Indicator	Status in 2000	Current Status	Original Targets	Average LMIC	Proposed New Targets in 2012 during Vision review
Food security					
Agricultural production, Kcal/Day/Person	1,612	2,385	2,200	None	2,600
Food Consumption Score	None	Poor FCS: 4% (2009)	None	None	Poor FCS: 0%
	None	Borderline: 17% (2009)	None	None	Borderline: 5%
Nutrition					
Acute child malnutrition (wasted) %	8.7 %	2% (2015)	None	7	0.5
Underweight (%)	20%	9% (2015)	None	14	8
Chronic malnutrition (%)	48%	38% (2015)	None	31	15

Additionally, a complimentary thematic area is “Accountable Governance” which focuses on improving service delivery in eight key areas, one of which concerns issues of food security and malnutrition. Under this thematic area, the strategy suggests increasing agricultural productivity and production through increased uptake of yield-enhancing modern agricultural inputs, and the adoption of modern farming practices to meet growing food demands.

More importantly, to effectively address malnutrition, the strategy acknowledges the need for appropriate coordination and the scaling-up of community based nutrition programmes and country-wide information

campaigns, with a focus on children under two years old. Table 7 presents the EDPRS-2 outcomes, indicators, and targets corresponding to FNS and their current achievements towards reaching FNS. Achievement levels were obtained using data from the EDPRS-2 mid-term evaluation in addition to estimates from the EICV-4 and the 2016 FINSCOPE. Current performance outcomes of some targets are likely to directly influence the status of FNS such as food reserve capacities (now estimated at 14% of its target). However, the irrigation target (both marshland and hillside) has already reached 88.5% of its target. This is consistent with what is observed in sub-section 3.4 above. The remaining challenge is the use and maintain the agricultural infrastructure that was already established. Proper management and optimum use of these infrastructures may contribute significantly to securing food and nutrition in the long-run.

Within Vision 2020, it is challenging to track the extent to which EDPRS-2 outcomes, targets, and achievements are reflected in the Vision 2020 Monitoring Matrix. Since both strategies were formed at the national level, a link can be established between the two documents so that the levels achieved in the EDPRS-2 will be aggregated from different Sector Strategic Plans/ Programmes. Therefore, the design of EDPRS-3 will need to address this gap to improve the tracking the performance via-a-vis the national-level targets.

As indicated previously, there are many sector strategic plans and policies sensitive to FNS. Apart from the PSTA-III (described above)⁴ and the HSSP-III, other relevant Sector Policies and Strategic Plans have been identified in the following sectors: Education, Social Protection, Gender and Family Promotion, Trade and Infrastructure, as described in the following sub-sections. These policies and strategic plans are inter-linked and complementary in regard to FNS issues.

Food security is multi-dimensional and therefore requires a coherent, multi-faceted response. The revised agriculture policy identifies actions that will contribute to achieving food and nutrition security outcomes include improved farm productivity and incomes, reduced post-harvest losses, increased market participation and improved regional and global trade integration. These proposed actions will need to be coupled with integrated measures that can improve both economic and physical access to food, especially for vulnerable groups, as well as measures that can contribute to improved diets among the rural population.

With a stunting rate of 38%, malnutrition remains a challenge to be addressed by policy changes. Additionally, the increasing prevalence of overweight and obesity observed mostly among urban dwellers, is rising with growing urbanization due to shifting diet habits which include more processed and fast foods. The policy recommends that the creation of kitchen gardens, and vegetable and fruit home gardens, could be a strategy for providing additional sources of protein, micronutrients and vitamins.

4 Other agriculture subsectors relevant for to food and nutrition security are presented in the Appendix n°7

Table n° 7. Key EDPRS-2 outcomes and targets relevant for food and nutrition security

EDPRS Outcome	Outcome Indicator	Unit	Baseline Value (2012/13)	EDPRS Mid-term Target (2015/16)	Actual Performance (2015/16)	2017/18 Target	Progress made on Targets (%)
Under Rural Development thematic area							
Increased graduation from extreme poverty	Category 1 or 2 beneficiary households who move to category 3 to 4	%	9.8	30	N/A	50	(-)
Increased productivity and sustainability of agriculture	Area under irrigation (marshland & hillside)	Ha	27,796	34,196	35,407	40,000	(88.52)
Enhanced rural settlements that facilitate access to basic services	Rural households living in planned (integrated & economically viable) settlements	%	37.5	56	51.6	70	(73.71)
Increased access to basic infrastructure for rural households	Rural households with access to electricity	%	5	On grid: 36.6% (164,928 new connections)	24.5	42	(58.33)
				Off grid: 13.1% (101,648 connections)	1.5	28	(5.36)
	District earth road class 2 (feeder road) upgraded to gravel road	Km	71.6	1,530	1,299.2	2,550	(50.95)
Under Foundational and Cross-cutting Issues							
Enhanced food security and nutrition	Maize and beans existing as food reserve	MT	15,909	66,909	14,122	100,909	(14.00)

Table n° 8. Sector Policies and Strategic Plans Relevant to Food and Nutrition Security

Policy/Strategy /Programme	Sector	Lead Ministry
School Health Policy (2013-draft)	Education	MINEDUC
Revised Agricultural Policy (2017-) ¹	Agriculture	MINAGRI
Health Sector Strategic Plan (2012/2013-2017/ 2018)	Health	MoH
National Trade Policy (2010)	Trade and Industry	MINICOM
National Food and Nutrition Policy (2013)	Health	MoH
National ICT4Ag Strategy (2016-2020)	Agriculture	MINAGRI
National Social Protection Strategy (2011)	Social Protection	MINALOC
National Water Supply Policy and Implementation Strategy (2016)	Water and Sanitation	MININFRA
National Sanitation Policy and Implementation Strategy (2016)	Water and Sanitation	MININFRA
National Policy for Family Promotion (2005)	Gender and Family	MIGEPROF
National Gender Policy (2010)	Gender and Family	MIGEPROF
National Strategic Plan for Fighting Against Gender-Based Violence (2012)	Gender and Family	MIGEPROF
National Disaster Management Plan (2012)	Emergency and Disaster Management	MIDIMAR

Revised Agriculture Policy (2017)

The Revised Agriculture Policy recognizes that in moving forward, Rwanda should continue to update and improve its National Food and Nutrition Strategic Plan, while relying on strong inter-institutional coordination for effective implementation.

National Food and Nutrition Policy & Strategic Plan

The National Food and Nutrition Policy and Strategic Plan were developed in 2013 as revised versions of the 2007 NFNP. The Policy emphasizes the definition of “Food Security” as defined by the World Food Summit in 1996 as “a situation when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life,” (FAO, 1996⁵). It also outlines conditions which influence a household’s food and nutrition security along with circumstances under which poor nutrition can occur even in food secure situations:

- (1) A household’s ability to acquire adequate amounts of food is not converted into actual food acquisition;
- (2) A household that has enough resources to purchase food but rather, uses them to acquire other goods and services (school fees, housing etc.);

5 FAO, 1996. Report of the World Food Summit. Food and Agriculture Organization of the United Nations, Rome, 13-17 November 1996.

- (3) Allocation of the food within the household does not adequately consider the needs of each household member.

Equally important, individual food security also depends on non-food factors such as sanitary conditions, water quality, infectious diseases and access to primary health care. In the above definition, it is critical to realize that the "Availability," "Accessibility," "Utilization," and "Stability" of food are emphasized, with the point of "Utilization" pointing out that "Nutrition Security" is more than "Food Security."

Furthermore, the policy outlines ambitious but essential strategies for solving serious and persistent problems, including the high prevalence of child stunting and high levels of anemia in children and women. Six operationally-focused strategic directions are complemented by a seventh direction which includes required support services. The seven NFNP strategic directions are listed below:

- (1) Food and nutrition advocacy to sustain commitment and mobilize resources for policy implementation;
- (2) Prevent stunting in children under two years of age at national scale;
- (3) Promote services and practices that result in improved household food security;
- (4) Prevention and management of all forms of malnutrition;
- (5) Improving food and nutrition in schools;
- (6) Assuring food and nutrition in emergencies; and
- (7) Supporting programmes and services with the objective to improve governance systems and accountability (planning, budget allocation, implementation and monitoring and evaluation) for nutrition and food security.

Joint Action Plan to Eliminate Malnutrition (JAPEM, 2016-2020)

The Government recognizes that malnutrition is not only a health sector problem, but a multi-sectorial challenge. In addressing the issue of malnutrition, a joint action plan including six Ministries was developed in 2012. However, during the plan's implementation, a number of challenges were identified, including ambiguous targets, a low level of stakeholder coordination as well as low involvement by a number of stakeholders such as the civil society, UN Agencies and the private sector.

To address the above-mentioned challenges, the Joint Action Plan was revised to include a proposal to set up a Secretariat in charge of coordinating nutrition and food programs. This revised action plan was developed to also facilitate implementation of the National Food and Nutrition Policy & Strategic Plan. Table 9 summarizes the key outcomes being monitored under the JAPEM 2016-2020.

Table n° 9. Key JAPEM outcomes being monitored

N°	Indicators	Baseline 2015/16	Target 2016/17	Target 2017/18	Target 2018/19	Target 2019/20
1	% of children under 5-years stunted	38	-	-	32	-
2	% of children under 5-years wasted	2	-	-	2	-
3	% of children under 5-years with	9	-	-	6	-
4	% of children under 6-months on exclusive breast-feeding	87	-	-	89	-
5	% of rural households within 500m of an improved water source	57	-	-	70	-
6	% of urban households within 200m of an improved water source	67	-	-	82	-
7	% of households with improved sanitation facilities (latrines)	83	-	-	100	-

Rwanda Trade Policy (2010)

The Rwanda Trade Policy was established in 2010. This policy complements other existing policies which touch on trade-related issues including the Competition and Industrial Policy and Master Plan. The overall goal of the trade policy is to provide a broad and overarching policy framework for other key policies, strategies and official documents related to trade. The policy has many objectives but two are the most relevant to FNS:

- (i) Increased productivity, competitiveness and diversified sustainable productive capacities for trading nationally, sub-regionally, regionally and internationally;
- (ii) Enhanced participation of importers and exporters of goods and services in regional and international trade taking advantage of trade opportunities. Special attention would be paid to supporting women farmers and entrepreneurs as well as rural-based exporters.

Some of the challenges identified by the trade policy are similar to the challenges associated with food accessibility and access to markets. These include challenges related to trade infrastructure (such as trade centres, markets, and storage facilities); wide spread anti-competitive behaviour by businesses (which has further exacerbated the market inefficiencies in Rwanda, particularly for certain key products and services); and market information gaps (Rwanda does not have an effective market information system). These factors have contributed to some of the challenges and issues encountered within the general internal trade system in Rwanda which in turn may affect achieving FNS.

Social Protection Sector Strategic Plan

The Social Protection Strategy is based on and aligned with the Vision 2020 and the EDPRS-2 Government Programs' key indicators. Child chronic malnutrition is among the six priority indicators under the two Government planning tools, (Table 10). It is important to note that among other programs linked to the Social Protection Strategy, the following ones contribute significantly to the FNS of rural households.

- *Girinka* program (One Cow per Poor Family Scheme) in which poor families with more than 0.7 Ha of land are provided with a cow;
- Provision of small animals (goats and rabbits in particular) to poor households owning small

amounts of land;

- The agricultural subsidy scheme on productive farm inputs (seeds and fertilizers).

While these types of support are recognized in addressing issues of poverty and food insecurity, another increasingly important issue that requires further attention is the potential corruption in the social service delivery system. Therefore, there is a strong need to call for more accountability and administrative justice in social protection interventions (Bizoza, 2017). Likewise, social protection strategies need to be implemented in non-discriminatory systems echoing the SDG principle to “Leave no one behind.” Therefore, existing accountability mechanisms need to be strengthened among public and development partners.

Table n° 10. Social protection indicators, relevant to Food and Nutrition Security

Indicator	Baseline Status	Vision 2020 Target	EDPRS 2 target	Current Level of Achievement (2014/15)
% of population below the poverty line	44.9%	20%	<30%	39.1%
% of population below extreme poverty line	24%	N/A	9%	16.3%
Gini-coefficient (measure of inequality)	0.49	0.35	N/A	0.448
Child chronic malnutrition	44%	15%	N/A	-
% of adult population accessing financial services	47%	90%	N/A	89%
Citizen satisfaction with service delivery	66%	80%	80%	67% (CRC-2016)

Source: EICV-4 (NISR, 2015)

The social protection sector is categorized into two levels of interventions: the Core Social Protection Programme and the Complementary Social Protection Programmes. The first category involves programmes like Vision 2020 *Umurenge*, the Genocide Survivors Support and Assistance Fund (FARG) and the Rwanda Demobilization and Reintegration Commission (RDRC). The second category is made up of social security, health protection, education, access to financial services, *Ubudehe*, One Cow per Poor Family, and OVC support. In addition to Table 11 which summarizes social protection interventions, Appendix n° 3 provides potential links between social protection and FNS.

Table no 11. Summary of Social Protection Programmes

Programme	Programme Summary
Vision 2020 Umurenge Program (VUP)	<p>VUP was launched in 2008 and is implemented by LODA. It is made up of three components/targets as shown in the table below:</p> <p>(1). <i>Direct Support</i>: Cash transfers to the extreme poorest households classified in category 1 of <i>Ubudehe</i>.</p> <p>(2). <i>Public Works</i>: Wages (cash for work) for members of poor households who have the ability to work but fall under <i>Ubudehe</i> categories 1 and 2.</p> <p>(3). <i>Financial services</i>: financial services (credits and savings schemes) for people of all <i>Ubudehe</i> categories but with particular emphasis on those under the lower <i>Ubudehe</i> categories.</p>
Ubudehe Programme	<p>Implemented by LODA, the Ubudehe Programme assists poor people in investing in small income generating projects. The programme has enabled communities across the country to undertake some priority projects which have more of an impact on people's livelihoods.</p>
The Genocide Survivors Support and Assistance Fund (FARG)	<p>The FARG fund was created to address the challenges affecting vulnerable genocide survivors in five key programme areas, namely: education, shelter, health, income generating activities and human rehabilitation (direct support to the most vulnerable genocide survivors, such as orphans, widows and especially those known as <i>Incike</i>).</p>
The Rwanda Demobilization and Reintegration Commission (RDRC)	<p>The RDRC commission was established with the overall goal of demobilizing and reintegrating former military persons from the following categories: RDF, Ex FAR, armed groups, active armed groups (FDRL) and Child ex-combatants.</p>
Social Security	<p>Social Security is a complementary social protection programme implemented by the MoH. It provides basic health and financial services, disability and survivors' pensions to its members. Additional benefits include access to basic services, such as healthcare and financial support for vulnerable populations.</p>
The Community-based Health Insurance Scheme (Mutuelle de Santé)	<p>One of the most important social security programmes is the Community-based Health Insurance Scheme which covers about 95% of the total population. In Rwanda, the medical care branch consists of four distinct categories: public servants, the military, salaried employees and the remaining general population which is enrolled in community-based health insurance or private insurance companies.</p>
One Cow per Poor Family (Girinka)	<p>The <i>Girinka</i> program (One Cow per Poor Family Scheme) targets economically-disadvantaged families with more than 0.7 Ha of land who are provided with a cow. The programme aims to improve agricultural farming and household nutrition levels. While the programme is led by MINAGRI, it is also community owned through the support of home grown initiatives.</p>
Free basic education to all Rwandans and Early Child Development (ECD) programmes.	<p>MIGEPROF provides and coordinates all support given to orphans and other vulnerable children with an emphasis on the most vulnerable individuals. Support is given through a minimum package comprised of health, nutrition, education, shelter, protection and psycho-social services.</p>

Water and Sanitation Sector Strategic Plan

Water Supply and Sanitation (WSS) affect broad areas of human life. The provision of adequate WSS services plays a crucial role in preventive health care and is most commonly a prerequisite indicator for socio-economic development. Access to drinking water is a basic amenity; ranked among the highest priority public services for Rwanda's population. Vision-2020 aspires to achieve country-wide access to safe drinking water by 2020 coupled with a minimum of 80% of the Rwandan population having easy access to adequate waste management systems while also a mastering individual and community hygiene practices.

Interventions focused on improving indicators across the water, sanitation and nutrition sectors, rely on more than increased and sustained resources. It is necessary for them to also include an integrated approach to simultaneously tackle shortcomings across all three vital sectors.

The Sector Logical Framework illustrated in Table 12, shows the key indicators, status and targets of water supply and sanitation in Rwanda, which are relevant and complementary to Rwanda's nutrition and food security situation. Table 13 presents water and sanitation progress against the main planning frameworks. In 2014, 83.4% of households had improved toilet facilities, compared to 74.5% in 2010. Additionally, out of the 83.4% of households; 64% have access to unshared sanitation facilities in regard to the JMP definition (EICV4).

Table n° 12. Water and sanitation logical framework – key outcomes relevant to Food and Nutrition

GOAL/IMPACT: Improved quality of people's life in Rwanda			
OUTCOMES	Indicators	Baseline (2012, MIS – EICV3)	Target ww(2016/17)
Increase to 100% in all population access to water by 2017/18	% of all population with access to safe and clean drinking water	71%	100%
Raised individual sanitation coverage to 100 % by 2017/18	% of households with improved sanitation facilities	75%	100%
Increased sanitation coverage for schools/health facilities/other public institutions and locations to 100% by 2017/18	% of schools, health centres and hospitals, markets with public flush water toilets / latrines and hand.	84%	100%
Raised collective sanitation coverage to 100% by 2017/18	% of urban households with access to piped water and collective sewerage services	30%	100%
	% of households with connection to a sludge disposal service	60%	100%
Increased rain water harvesting and management facilities in all communities (in rural and urban areas by 2017/18)	% of urban households with rain water harvesting and management facilities	80%	100%
	% of rural households with rain water harvesting and management facilities	55%	100%
Increased solid waste handling facilities in all communities (rural and urban areas) by 2017/18	Number of Districts with functional solid waste landfills in all urban centers	5	30

From a health perspective, higher levels of morbidity from one infectious agent for also reflected across other infectious agents. This is reinforced by comparing the relationship between the morbidity and nutritional status of various areas.

Table n° 13. Water and sanitation progress against the main national planning frameworks

	Indicator	Base 10/11	Status 2013/14	EDPRS-2 target	7YGP target	Vision 2020	Gap to EDPRS-2 & 7YGP targets
WATSAN	% of households with access to improved sources of drinking water	74.2	85	100	100	100	15
	% households using improved sanitation (toilets)	74.5	83.4	100	100	100	17

Source: MINFRA presentation in the 2017 National Leadership Retreat

Health Sector Strategic Plan

In 2013, Rwanda's MOH, began implementing the third Health Sector Strategic Plan (HSSP-3). This strategy sets establishes sector priorities and implementation arrangements at all levels. As part of the key HSSP-3 programs, nutrition constitutes a critical component of the strategy with clear alignment to the 2014 National Food and Nutrition Policy (NFNP), and therefore prioritizing some strategic ways forward. These include the prevention of stunting; reducing anemia in children and women; and improving food and nutrition in schools. Under this objective, in 2012, District plans to eliminate malnutrition were developed and endorsed for implementation. Table 14 summarizes key findings under HSSP-3.

Table n° 14. Key nutrition targets from the health sector strategic plan

Expected Outputs/Outcomes	Baseline 2011	Targets 2015	Findings 2015	Targets 2018
% children <5 yrs. screened in CBNP	70	82	71	88
% children in nutrition rehabilitation program / total children malnourished	70	82	86	88
% Moderate Anemia in Children 6-59 months /Women of Reproductive Age	3/14	N/A / N/A	3/15	2/12
% Children <5 years with stunting	44		38	18
% children < 5 years underweight	11		9	4
% children < 5 years with wasting	2.8		2.2	2

Disaster Management Policy/ Strategic Plan

The 2012 National Disaster Management Policy was designed in response to a number of natural and man-induced disasters resulting in the loss of lives and property and the displacement of people. Disaster-types prevalent in Rwanda include famines (resulting from droughts), earthquakes, epidemics, floods, landslides, environmental degradation, technological accidents, fires and lightning. The policy aims to establish a systematic disaster prevention, mitigation, preparedness and management framework for Rwanda (Page: 23). The policy also prioritized food insecurity and famine among the main types of hazards to be addressed. Additionally, a new institutional arrangement has been envisaged for effective

disaster management both at central and decentralized levels. This would include new committees (especially at the central level) made up of representatives from various ministries and responsible institutions to address each type of hazard. In the case of food insecurity and famine, the following institutions have been identified: the Ministry of Disaster Management and Refugee Affairs (MIDIMAR) (lead institution), MINAGRI(co-lead), MINALOC, MINECOFIN, the Ministry of Natural Resources, the MoH, MINEDUC, Research Institutions, the Rwanda Red C, and Local Government institutions.

The aim of this policy and related interventions is threefold:

- (1) Building resilience to disasters by enhancing the preparedness of communities, infrastructure and service providers by reducing levels of vulnerability and increasing the ability to withstand and minimize the effects of disasters and complex emergencies through adaptation to climate change.;
- (2) Providing fast, coordinated, effective and appropriate responses to disasters and complex emergencies;
- (3) Ensuring timely recovery from disasters and complex emergencies, and leaving communities and families in a better position to withstand future hazards as well as to rebuild.

In response to this policy, the 2013-2018 Disaster Strategic Plan set the goals, targets, and interventions for each disaster category to ensure effective disaster m. The policy links its proposed interventions with other regional and national development frameworks: MDGs (now SDGs), Vision 2020, 7YGP, EDPRS (now NST1), and the Decentralization Policy, among others. Furthermore, the policy also proposes several clusters through which interventions can be implemented, monitored and adapted. These include the clusters on Search, Rescue & Evacuation; Camp Coordination & Management, Logistic; Protection; Emergency Shelters; Emergency Telecommunications; Food Security, Health & Nutrition; Education; and Water and Sanitation. Issues pertaining to FNS are directly integrated in Food Security, Health and Nutrition cluster (PP: 94-99).

National Gender Policy (2010) and Strategic Plan (2011-2016)

In regard to FNS, the gender policy contains a number of strategies across various sectors of gender mainstreaming. Within agriculture, for example, the policy recognizes the need for “undertaking gender sensitive measures aimed at transforming the subsistence agriculture into a market oriented agriculture and empower the farmers, especially women, with appropriate knowledge and skills for food production and processing”. The policy also calls for the enhancement of men and women’s agricultural productivity to improve food security; increased capacity in the areas of food preservation and the storage of surplus; and for the provision of efficient facilities for food distribution. Furthermore, the 2011-2016 Gender Strategic Plan set three strategic outcomes which apply to FNS:

- (1) Gender mainstreaming is improved in all sectors in compliance with the National Gender Policy.
- (2) Gender Based Violence (GBV) is adequately responded to in all sectors.
- (3) The implementation of all international commitments related to gender is improved

However, looking at the M&E matrix, it is unclear as to how the targets related to FNS can be measured both at outcome and output levels. The strategy seems to rely mostly on the implementation of other sector strategic plans, because gender and family promotion is not a standalone sector but rather, a crosscutting issue that needs to be mainstreamed within all sectors. The performance of this sector will depend mainly on the extent to which gender-related issues, including those associated with FNS, are being integrated into the planning and implementation of other sector strategic plans.

Climate Change Adaptation Strategy (2010)

Rwanda has given considerable attention to climate change and adaptation in its policies and development frameworks. Since agriculture in Rwanda is rain-fed, climate change and variability is increasingly becoming the main challenge facing the majority of farmers. Consequently, the most recent Rwanda State of Environment (Government of Rwanda, 2009) highlights the need to develop climate change resilience strategies for all sectors. The “Climate Change Strategy for Rwanda” was launched in 2010 with the support of the Department for International Development (DFID). This strategy is expected to make concrete proposals to deal with climate change adaptation and mitigation.

Furthermore, the climate change adaptation strategy makes important links to key sector vulnerabilities, namely agriculture, food and nutrition security, health, water resources and ecosystems. Climate impacts may alter the extent of areas suitable for agriculture and the length of growing seasons, affecting crop yields, hunger and nutrition. For example, a 2013 study conducted by REMA, estimates a cost of 1.4% of overall GDP due to the May 2012 flooding which occurred in Rwanda. The EDPRS-2 shows that about USD 50 million is spent annually to build the adaptive and resilience capacity needed to mitigate climate change effects. Table 15 gives an example of the impact of climate change on agriculture and food security.

Table n° 15. Climate Change Impacts on Agriculture and Food Security

Change in climate change	Potential impact on agriculture and food security
Warmer temperatures, prolonged droughts, and higher evapotranspiration	Reduced production of maize and beans, livestock losses, and greater conditions conducive to famines.
Greater incidence of temperature extremes Changes in rainfall timing and amount	Increased stress on crops, which may in turn decrease yields of crops such as wheat, fruit, and groundnuts.
Change in Climate Potential impacts on agriculture and food security	Increased flood and landslide frequency contributing to erosion, which can hamper agricultural production and destroy crops

Source: USAID (2012).

National Sanitation Policy & Implementation Strategy

The overall purpose of the National Sanitation Policy is to “ensure sustainable, equitable and affordable access to safe sanitation and waste management services for all Rwandans, as a contribution to poverty reduction, public health, economic development and environmental protection.” The policy has seven objectives that reflect the need to improve individual sanitation; institutional sanitation; collective sanitation; storm water management; solid waste management; E-waste; industrial, radioactive and health-care waste; and the institutional framework (policy: pages 29-42). The implementation strategy also provides a logical framework and performance targets and indicators along the seven objectives. Table 16 provides sample indicators on individual sanitation.

Although indicated in the policy, there is little evidence within the implementation strategy, of how these targets contribute to FNS. The policy stipulates that “proper sanitation and hygiene affects broad areas of human life.” It also states that poor sanitation and hygiene conditions can affect a child’s nutritional status through at least three direct pathways: intestinal parasites, diarrheal diseases, and environmental enteropathy. Furthermore, unsanitary environments due to lack of adequate water supply also contribute to “malnutrition by challenging children’s immune systems; nutrients that would otherwise support growth go instead to supporting the immune response,” (policy: page 10). Therefore, once these targets are achieved, the outcome will likely lead to sanitary conditions which are more conducive to adequate nutrition.

Table n° 16. Individual Sanitation performance indicators and targets

Performance indicator	Baseline (2015)	2016/17	2017/18	2018/19	2019/20	2029/30
% of households with improved sanitation facilities	72	85	95	100	100	100
% of households having a hand – washing facility with water and soap at home	12	15	25	50	70	90

Source: MININFRA (2016)

National Water Supply Policy & Implementation Strategy

The National Water Supply Policy and Implementation Strategy were enacted in December 2016. As stated in the policy document, the policy's vision is to "ensure sustainable, equitable, reliable and affordable access to safe drinking water for all Rwandans, as a contribution to improving public health and socio-economic development". Table 17 presents the policy objectives and targets in each sub-sector. Existing water sources in Rwanda, especially in rural areas, are dominated by protected springs (44.8%), piped water and public stand pipes (32.3%), piped water into dwellings/yards (1.7%), unprotected springs or wells (8.9%), and boreholes or protected wells (4.7%). The 2016 Water Implementation Strategy reveals that the involvement of the private sector in new rural water supply scheme investments is limited due to high upfront investment costs.

Table n° 17. Water policy objectives, targets, and current achievements

Sub-Sector	Objective/target	EICV-4 status	
		Without distance	With Distance
Rural coverage	1. Raise rural water supply coverage to 100% by fast tracking of a strategic investment programme.	83.7%	47.3%
Rural- Functionality	2. Ensure affordable rural water supply services and sustainable functionality of rural water supply infrastructure		
Urban	3. Ensure safe, reliable and affordable urban water supply services for all (100% coverage by 2018 while striving for full cost recovery.	90.0%	60.5%
Schools and Health Centres	4. Ensure safe, affordable, and reliable water supply services for schools, health facilities and other public places		
Institutional Sector Framework	5. Strengthen the sector's institutional and capacity building framework.		

3.3. Key Strategies and Plans of Non-Government Partners

The following sub-section provides a high-level summary of ways in which key non-government partners have integrated aspects of FNS into their strategies and plans. These aspects are implemented in complementarity to Government policies and the sector strategic plans referenced above. Additional information on specific interventions is captured in Appendices n° 5, 8 and 9.

3.3.1. United Nations Development Assistance Plan (UNDAP 2013-2018)

The UN contribution to the Government's efforts to eliminate malnutrition is outlined in the 2013-2018 UNDAP under outcome 3.1 of the Development Result Area 3: "Human Development," which states that "All Rwandan children, youth and families, especially the most vulnerable, access quality early childhood development, nutrition, education, and protection." UNDAP also outlines that, "the UN targets the enhancement of good maternal nutrition, supporting health and nutrition systems to promote optimal feeding practices for pregnant women through messaging and support via ante-natal visits; strengthen the system and approach to support lactating mothers to consolidate and sustain optimal infant and young child feeding practices and promote appropriate complementary feeding practices of children aged 6-23 months as part of the global 1000 days campaign." UNDAP is also in line with the 2013-2018 NFNPS. The four United Nations agencies working within the nutrition sector in Rwanda, FAO, UNICEF, WFP and the WHO, have been working as a UN Network for Scaling Up Nutrition since 2012, in support of the national Government actions, as laid out in the NFNPS. These agencies have aligned their efforts to focus as one network on the '1000 days period,' (from a child's conception through the age of two years) to reduce stunting and anemia in Rwanda.

3.3.2. Common Country Programme for Rwanda (2013-2018)-UNICEF

UNICEF's Common Country Programme (CCP) for Rwanda is aligned with outcome 3.1 of UNDAP. The key lines of action under this outcome include the following:

- (i) The United Nations will work with the Government to improve health, nutritional status and learning outcomes (literacy, numeracy and life skills) for all Rwandans, especially the most vulnerable, within the context of efforts to accelerate human development. It will support the Government to expand social protection and empower women and girls, in recognition of the importance of human development in sustainable economic growth and transformation.
- (ii) The United Nations will use a holistic approach based on multi-sectoral strategies to sustainably improve the well-being and development of children and families. Emphasis will be placed on designing strategies to reduce maternal and child malnutrition and mortality; modelling and replicating integrated early childhood development services; developing policy and curriculum and enhancing education-sector capacities to deliver inclusive quality basic education, including sexuality education; and developing robust alternative care and protection systems for vulnerable women, children and youth.
- (iii) The United Nations will conduct operational research and generate evidence in the area of early childhood development, home-grown school-feeding, elimination of chronic malnutrition and reproductive health. The interventions will include a robust and rigorous M&E system that will build an evidence base for use by Government decision-makers in programme and policy design and formulation. It will provide technical assistance to develop and scale up national programmes.

3.3.3. Common Country Programme for Rwanda (2013-2018)-WFP

WFP's CCP-Rwanda aligns with outcome 3.1 of UNDAP and WFP's strategic objective number 4 on "reducing chronic hunger and undernutrition." Key lines of action under this outcome include:

- (i) WFP will continue to work in tandem with relevant central and decentralized government institutions in the area of food and nutrition security, vulnerability, and poverty analysis with an aim to increase their capacity to target relevant interventions to the poor, food insecure, and malnourished.
- (ii) In an effort to contribute to Rwanda's fight against chronic malnutrition, WFP will, under the REACH⁶ framework, model the implementation of targeted preventative supplementary feeding. Targeting will be based on household poverty status.
- (iii) Under the overall leadership of UNICEF, the United Nations will support the Government to update nutrition related policies, strategies and guidelines in the context of an evolving and dynamic environment.

3.3.4. Country Programming Framework for Rwanda (2013-2018)-FAO

FAO's CPF-Rwanda focuses on four priority areas: (1) Improvement of food security and nutrition among the Rwandan population; (2) Agriculture and livestock productivity through sustainable use of natural resource management, adapted to climatic changes; (3) Value chain development and private sector investment as a basis for boosting commercialized agricultural development; and (4) Institutional collaboration and knowledge sharing in addressing agricultural development, food security and poverty actions. FAO's five Strategic Objectives are: (i) contribute to eradicate hunger, food insecurity and malnutrition; (ii) increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner; (iii) reduce rural poverty; (iv) enable more inclusive and efficient agricultural and food systems at local, national and international levels; and increase the resilience of livelihoods to threats and crises. Under the above framework, FAO supports a number of initiatives in partnership with other UN agencies and Government institutions.

3.3.5. Country Cooperation Strategy for Rwanda (2014-2018)-WHO

The WHO Country Cooperation Strategy (CCS) for Rwanda is aligned with UNDP. Strategic priorities 3 and four within the third CCS, are linked to nutrition. Both strategic priority areas align to UNDP's result area 3. The main focus under strategic priority 3, is to "strengthen surveillance, prevention and management of malnutrition in mothers, infants and young children." In regard to strategic priority 4, the relevant focus area states to "promote a safer and healthier environment, improved nutrition and food safety". WHO plays an active role in implementation, in partnership with other UN network agencies.

3.3.6. Strategies/Plans of other Development Partners, Civil Society Organizations and Private Sector

Appendix n° 5 on "key stakeholders for food and nutrition security in Rwanda," highlights a number of additional non-government actors that have developed and implemented strategies and/or plans responding to FNS challenges.⁷ These include (i) bilateral and multilateral development partners, (ii) non-government organizations (NGOs), (iii) universities and specialized national research institutions, (iv) independent research organizations, (v) private sector operators, and (vi) farmers' organizations. For example, the World Bank supports the agriculture sector in many initiatives which focus on tackling issues of food insecurity and low livelihood income levels among rural communities through the development of sustainable land, irrigation systems, feeder roads and crop production. The African development Bank (AfDB) supports the rural development sector in Rwanda through various development investments in areas such as marshlands, livestock, infrastructure, scale-up of the One Cow per Poor Family, as well as the intensification of fish production and fisheries. Additionally, USAID actively supports Integrated Nutrition, Water, Sanitation and Hygiene Activity (INWA) programs in several

⁶ REACH is a country-led initiative to scale up interventions addressing child undernutrition in partnership with United Nations agencies, civil society, donors and the private sector. Other United Nations agencies involved include the Food and Agriculture Organization, the United Nations Children's Fund, and the World Health Organization.

⁷ More information is provided in Appendixes n° 8 & 9)

Districts of the country.

Non-government organizations such as Heifer International, Catholic Relief Services, and SNV, etc. implement significant plans which contribute to the improvement of FNS in Rwanda. International research and technology transfer organizations such as CGIAR Centers (e.g. CIP, CYMIT, CIAT, IITA, Africa-Rice, ICRAF, IFPRI, etc.), the Alliance for a Green Revolution in Africa (AGRA), and Harvest Plus play a significant role in bridging research and knowledge gaps (as well as disseminating technology) on various areas of FNS in Rwanda. For instance, CIP, CIAT, Harvest Plus and AGRA support initiatives aimed at developing (breeding) and disseminating bio-fortified crops in Rwanda (e.g. Orange Flesh Sweet Potato, Iron-rich Beans, Orange Maize, etc.). Additionally, IFPRI specializes in providing research-based policy solutions to sustainably reduce poverty as well as end hunger and malnutrition in developing countries. Within the private sector, the Private Sector Federation (PSF), in collaboration with MINICOM, developed the Rwanda Private Sector Development Strategy (RPSDS, 2013-2018). One of RPSDS's priority programs focuses on Entrepreneurship Development, with a specific focus on Commodity Chain Development based on CIP achievements. To date, there are several large and SME agri-processors (e.g. Inyange Industries Ltd, AZAM Industries, Sina Gerard Enterprises, MINIMEX, DUHAMIC ADRI, SHEMA Fruits, etc.) involved in businesses that promote the availability and access of nutritious food products on Rwanda's domestic market. One of the major players (African Improved Foods- AIF) has begun producing energy-dense and nutrient-rich food products that are being used under the VUP program to improve the nutrition status of Rwanda's most economically disadvantaged people.

3.3.7. Special Refugees' Program

Over the last decade, Rwanda has been hosting refugees, mainly from the Democratic Republic of the Congo (DRC) and other African countries. Today, Rwanda hosts over 164,000 refugees of which 47.5% are from the DRC, 52.2% from Burundi and 0.3% from other nationalities. The Congolese refugees are hosted in five camps located in five Districts: Gicumbi, Gisagara, Nyamagabe, Karongi and Gatsibo. Since April 2015, Rwanda has continued to receive a massive influx of Burundian refugees who have fled the recent violent clashes in the country. According to a report by MIDIMAR, the number of registered Burundian refugees in Rwanda by the end of June 2017, had reached 85,416. New arrivals continue to enter the country at an average of 150 persons per week, and the inter-agency population planning scenario for 2017 estimated 115,000 Burundian refugees in Rwanda by the end of 2017 (UNHCR, 2017).⁸ Most Burundian refugees are hosted in camps located in the Eastern and Southern Provinces of Rwanda.

In terms of gender, the proportion of female refugees outnumber that of males, representing 52.6% and 47.4% respectively. In terms of age groups, 46.7% of the refugees fall between the ages of 18-59 years old; 15.3% between the ages of 12-17; 20% between the ages of 5-11; 14.8% between the ages of 0-4 and 3.1% the age of 60. Humanitarian assistance is provided to these refugees including the provision of basic needs such as shelter, water, hygiene, health and nutrition, food and non-food items as well as the support of life saving activities and other services related to GBV prevention and response programmes (UNHCR, 2016)⁹.

In terms of FNS among refugees living in refugee camps, some measures are in place which aim to ensure that all refugees, without discrimination, have sufficient quantities of quality and appropriate food. Through a 2002 Memorandum of Understanding (MoU) on "ensuring access to timely and the right quantities of the right food," UNHCR and WFP seek to contribute to the restoration and/or maintenance of a sound nutritional status for refugees, through the delivery of a food basket that meets the assessed requirements of different refugee population groups. Food assistance is expected to be culturally acceptable. In addition, the food security objective seeks to promote the highest possible level of self-reliance among refugees through the implementation of appropriate programmes to develop food

8 Rwanda Refugee Response Plan, UNHCR (2017).

9 Inter-agency gender needs assessment, 2016

production and income generation, which will in turn facilitate a progressive shift from general relief food distribution towards more targeted assistance and sustainable development-oriented activities (UNHCR, 2016).

Two approaches have been chosen to meet the food and nutritional needs of refugees living in Rwanda's six refugee camps: cash transfers and food assistance. The cash assistance modality includes a monthly transfer of money (RWF 6,300 per person) by WFP to refugees through tele-mobile technology and more recently, Mastercard. Cash transfers are currently being implemented in three out of the six refugee camps: Gihembe, Kigeme and Nyabiheke. On the other hand, the food assistance approach involves the transportation and distribution of food to refugees by WFP. This approach is currently being implemented in Kiziba, Mahama and Mugombwa Refugee Camps. WFP distributes cereals, edible oil, pulses and iodized salt to refugees, calculated at a standard of 2,100 Kcal of energy and micronutrients per person per day. However, access to enough food remains a challenge in all six refugee camps. Whether in receiving food or cash transfers, the quantity provided is insufficient to sustain refugees to make it to the end of the month. A 2016 assessment conducted by WFP confirmed that food lasts in refugee households for 23 days. This is partly because the beneficiaries sell (in camps receiving food transfers) part of their entitlements to meet other household expenses. In camps receiving cash transfers, the beneficiaries either spend part of their entitlements on other expenses or on buying high quality food commodities (e.g. rice, maize meal, etc.). In either case, food assistance is considered one of the major sources of income transfers to refugee households.

In all six refugee camps, food and cash assistance transfers are mainly collected by women contributing to feelings of empowerment and self-confidence by giving women the ability to choose what types of food to buy, when and where to buy the food; and the responsibility of receiving cash on behalf of their families (UNHCR, 2016). Limited alternative income sources other than humanitarian assistance, combined with resistance to shifting gender relations, has created a sense of hopelessness among refugee men, who often remain idle in the camps. To respond to this challenge, MIDIMAR and UNHCR, developed the Strategy on the Economic Inclusion of Refugees aimed at gradually transforming camps from aid-dependent, parallel societies into vibrant market-based economies. This will hopefully = improve the livelihoods of refugees and reduce gender issues. However, the demand for refugee access to quality and nutritious foods remains an area for further intervention by the government of Rwanda and supporting organizations. The focus should be on other dimensions of nutrition security such as WASH-related interventions.

3.4. Programmes and Key Implementation Activities

FNS programmes and implementation activities in Rwanda can be categorized into five intervention areas : Food, agriculture and healthy diets (food consumption practices for healthy diets, crops/ horticulture, livestock, etc.); Maternal and child care (maternal infant and young child nutrition/ MIYCN); Health (deworming, micronutrient supplementation, treatment of acute malnutrition, etc.); Social protection (One Cow per Poor Family, VUP, disability programmes, etc.); and Water, Sanitation and Hygiene/WASH (hygiene promotion, sanitation systems, water supply, etc.).

The analysis outlined in the intervention matrix (see Appendix n° 8) shows that stakeholder involvement is most prominent in the promotion of kitchen gardens (including the promotion of mushroom cultivation) (19%), IYCF practices (18%), hygiene (17%), and BCC campaigns (15%). These estimates reveal the need to understand whether the areas that are receiving a larger number of interventions constitute core areas needed to ensure FNS. These findings require triangulation with government resources and budget allocations (Section 3.3) in order to determine which areas receive more consideration in terms of interventions related to the expected outcomes of FNS.

Questions asked of key informants during informational consultations, identified existing development

partners, funding sources, intervention coverage, beneficiary targeting and delivery channels of FNS (see Appendix n° 9). The consultations also revealed that a majority of stakeholders have their respective partners whom they work with and operate their intervention through countrywide (about 87.5% of total stakeholders identified). Dominant channels of these stakeholders' respective support include government budgets and direct support to community based organizations and individual beneficiaries. For stakeholders targeting the community level, especially within the area of social protection, they are guided by the *Ubudehe* graduation process which includes aspects of FNS within its revised criteria (see Table 18).

Table n° 18. *Ubudehe* Categorization¹⁰

Category	Main Characteristics
1. The very poor	Household(s) without a house, ability to rent a house, often struggle to get food and to get basic items
2. The poor	Household(s) with or able to rent a house, often gets food, works for others (wages), and with an employee in non-permanent jobs
3. Resourceful poor	Household(s) with an employee in the Public or Private Sector, with a member who is self-employed, with business activities, farmers with food surplus for market, and with a member who is a small trader.
4. Rich	Household(s) with a member who is a big trader (<i>whole sales, may be producing locally, in import and export trade</i>), owns a company providing specialized services (<i>transport, etc.</i>), employed in the Public or Private sector at high level, has (an) industry(ies), or with a member who owns a rental house (s) in big cities or other big businesses like trucks, petrol stations, etc.

3.5. Financial resources for FNS

Due to the cross-cutting nature of FNS, financing depends on multi-sector programmes and interventions initiated by several government ministries and development partners using resources allocated to and generated by sector level governments. Understanding the resourcing levels specific to FNS and other relevant sectors, is crucial in portraying challenges pertaining to mobilizing resources to finance FNS. This understanding is done through an analysis of public expenditure in sectors relevant to FNS, through government and development partner contributions and through resource strategies.

Table 19 provides an overview of public expenditures for sectors relevant to FNS. As evidenced in the table, the share of these sectors in the national revised fiscal budget ranges between 17% and 34.8% during the 2013/14 and 2016/2017 fiscal years. However, it is difficult to draw from these expenditures the financial efforts made or needed to finance activities with direct or indirect linkages to FNS components. This is also the case for Sector Strategic Plans and Joint Sector Reviews in which costing and costing classification areas are different across each sector and joint sector review. This variation makes it difficult to identify outcome areas likely to affect FNS, what proportion of the budget is allocated to FNS, and what gaps need to be addressed. The following sub-sections outline the resource levels of three main relevant sectors in order to demonstrate existing financial gaps.

¹⁰ Source: Adapted from MINALOC (2015). Accessed from: <http://www.minaloc.gov.rw>. Accessed 20th July 2017

Table n° 19. Trends of Public Expenditure in Relevant Sectors (Frw)

Relevant Sector/ Fiscal Year	2013-2014			2014-2015			2015-2016			2016-2017		
	Annual Revised Budget	FG (%)	Total %	Annual Revised Budget	FG (%)	Total %	Annual Revised Budget	FG (%)	Total %	Annual Revised Budget	FG (%)	Total %
Agriculture and Animal Resources	62,021,292,575		3.7	107,438,597,973		5.7	110,973,091,156		5.5	90,059,998,183		4.5
Health Sector	11,965,581,299		0.7	134,727,573,999		7.1	139,138,154,612		6.7	151,917,870,726		7.6
Family and Gender promotion	997,885,101		0.16	2,707,256,119		0.1	3,393,326,237		0.2	3,899,553,024		0.2
Education	110,973,091,156	8	6.6	110,973,091,156	1	5.9	21,752,827,353	4	1.1	17,206,758,415	5	0.8
Infrastructure (WASH)	186,678,752,423	100	11.2	241,090,004,022	100	12.8	249,072,182,571	100	12.2	21,147,445,610	100	1.1
Disaster Management	1,079,676,608		0.1	889,657,606		0.1	997,885,101		0.1	1,662,929,898		0.1
Local government (including Social Protection)	49,965,411,648		2.9	55,427,849,273		2.9	64,681,654,803		3.2	55,080,551,095		2.8
Total	1,668,420,295,979		25.3	1,873,886,762,001		34.86	2,026,619,337,925		29.113	1,998,297,137,259		17.1

Source: Annual revised budgets (FY 2013/14- 2016/2017), Ministry of Finance and Economic Planning, (2013/14- 2016/17), Kigali, Rwanda

From 2012 to 2017, financing allocated to the agriculture sector constituted around five to six percent of the national budget, only half of the amount prescribed in the Malabo Declaration which states that 10% of the national budget should be directed towards agriculture financing. A 2016¹¹ report by FAO shows that agriculture projects compose 91% of all agriculture funds. While 49% are externally funded and 42% domestically, 9% is allocated for recurrent expenditures. In regard to resource allocation to specific programmes, Agriculture and Animal Resource Intensification receives 75.3% of funding (according to the PSTAI), Value Chain and Private Sector Investment 12%, and remaining programmes 6%. Additionally, financing varies between different government levels with the central government receiving 93.4% of the budget and local governments 6.6%.

Although the health sector is expected to contribute the most to the component of nutrition security, the sector's financing is heavily dependent on external support. The health sector has received great attention by both the government and development partners and positive progress has been made in various areas including maternal and child health. Nutrition is increasingly receiving consideration in the sector's overall planning systems. The current 2017/2018 Forward Looking Joint Sector Review (FLJSR), outlines three main intervention areas related to nutrition security: 1) improvement of multi-sectorial collaboration, 2) prevention and management of malnutrition (acute and chronic), and 3) community education and awareness on dietary and complementary feeding practices. However, the sector's dependency on external support remains a challenge with over 50% of the health system reliant on donor support although this support is continuously decreasing; thus causing potential threats in terms of the sector's sustainability. Furthermore, the current national budget allocates less than 8% to the health sector and it is projected to be the same for the 2017/2018 fiscal year. Unfortunately, activities with a direct effect on nutrition receive low weight in terms of resource allocation among sector priorities. For example, the 2015/2016 annual performance contracts (*Imihigo*) allocated 5.1% of the total planned budget to nutrition. Therefore, once private sector involvement increases in the provision of specialized services, the government is likely to increase financing in other areas including nutrition security.

Poor and food insecure families make up a larger proportion of beneficiaries within social protection programmes. The aim of these programmes is to provide basic needs and services (food security, nutrition, health, education, water and sanitation). At the same time, food and nutrition security and social protection programmes receive financial support from various stakeholders. This implies that once the links are more established, increasing the financing of social protection programmes, has greater potential to also increase support to FNS. However, many daunting challenges remain including the harmonization of activities across different stakeholder ministries and partners to avoid the duplication of effort, the alignment of priorities across different stakeholder institutions, a more efficient use of limited funding and the delivery of the more appropriate and impactful services to vulnerable communities in Rwanda (Siegel et al. 2011). Each programme is funded differently which provides part of the explanation for the variation in levels of resource mobilization from one programme to another.

Table 20 shows the proposed budget allocation within the social protection sector according to the 2017/2018 Forward Looking Joint Sector Review (FLJSR) on various sector outcomes. The annual increment (which is the proxy for additional resource mobilization) varies from - 26.6% to 25%. Overall, the sector is capable of raising additional resources equivalent to about 12% above its previous budget.

11 Among the reference documents

Table n° 20. Estimated budget for the Social Protection Sector

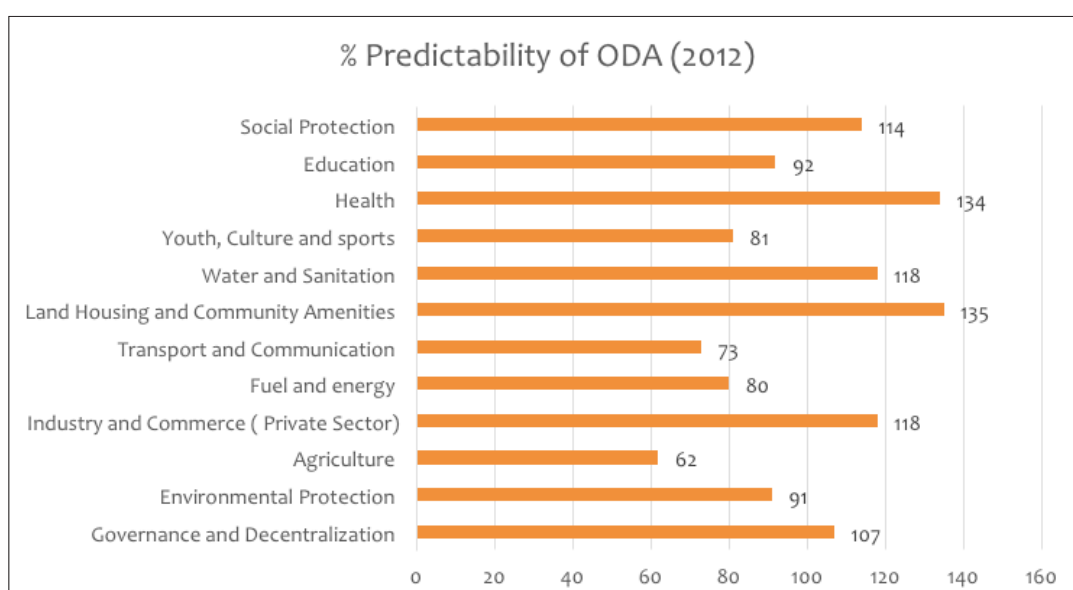
Serial #	Outcome Area	Budget 2016/17	Budget 2015/16	Annual Increment	% Change
1	Increased Coverage of the Extreme Poor and Vulnerable	6,978,112,398	5,571,774,550	1,406,337,848	25.24
2	Child poverty and Vulnerability in the poorest Households addressed	7,596,216,255	6,656,923,462	939,292,793	14.11
3	Social Protection System has sustainable impact on extreme poverty	27,876,757,630	25,383,837,565	2,492,920,065	9.82
4	More effective, Efficient, and Harmonized Social Protection Sector	6,838,448,676	5,890,377,617	948,071,059	16.10
5	Improved Sector Response to Climate Related	1,286,314,277	1,753,075,330	(466,761,053)	-26.63
	Total	50,575,849,236	45,255,988,524	5,319,860,712	11.76

Source: Adapted from FLJSR- Social Protection, 2017/2018

Looking at the overall financing landscape of development, domestic revenues have been increasing at a faster rate compared to external development financing in Rwanda. Figure 8 shows how domestic revenues surpassed official development assistance (ODA) for the first time in 2012 and the same for all emergency response funds (ERFs). Over the same period, net flows of foreign direct investments (FDI) have increased from 4.6% of ERFs in 2006, to 19.3% in 2014, making a recovery following the dip in 2010 due to the impact of the World Economic Crisis (IPAR-2017). The 2012 ODA report for Rwanda, although not up-to-date, shows the percentage of predictability of ODA per sector. Positively, sectors relevant to FNS have a relatively high percentage of ODA predictability (figure n° 8).

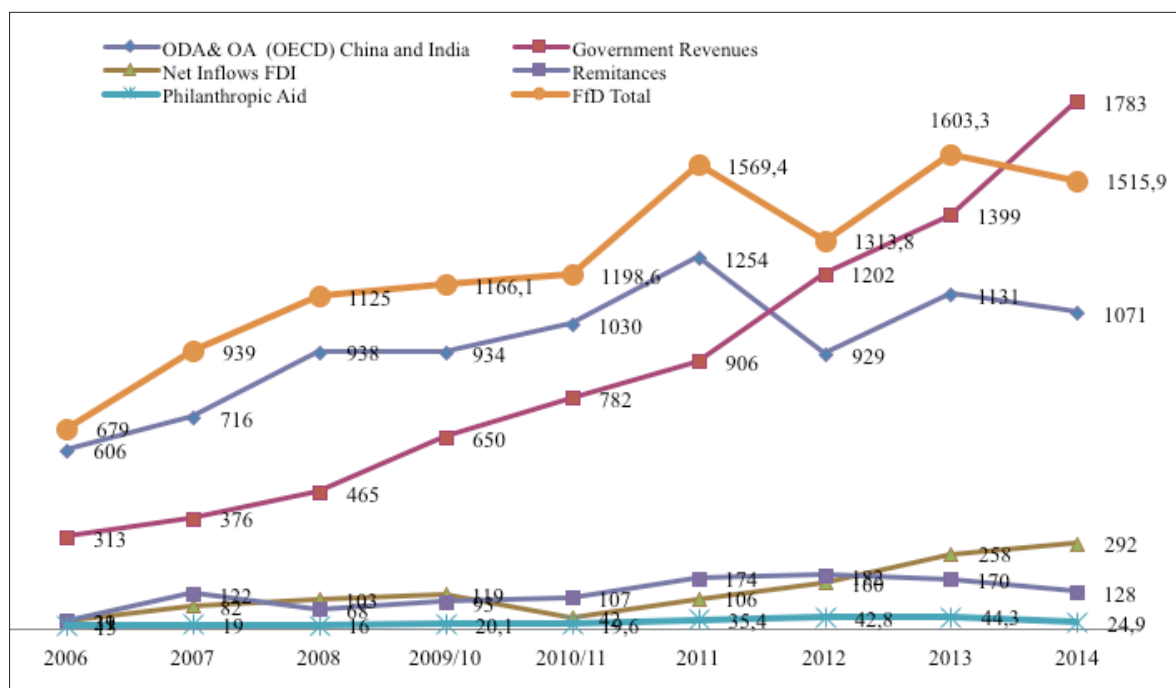
Furthermore, the Ministry of Finance and Economic Planning determines the division of labour and this has had a measure of success. However, overcrowding by development partners exists in some sub-sectors and inadequate support in others; with some DPs working in more than three sectors (IPAR-Rwanda, 2017). This reflects the need for improved coordination to ensure that sectors relevant to FNS increase their share in the basket of financial support.

Figure n° 8. Predictability of ODA for Rwanda



Source: Adapted from IPAR- Rwanda (2017).

Figure no 9. Major Modes of Financing in US\$ Millions Current (2005-2013)



Source: IPAR- Rwanda (2017).

Overall, the sustainability of development programs by government and development partners, specifically those related to FNS, deserve greater attention. Lessons from previous development efforts under EDPRS-1 & 2 which serve as enabling factors towards sustainable development include ownership of development strategies by all stakeholders, use of home grown initiatives to strengthen the delivery of results, and close collaboration at the community level. Furthermore, in regard to sustainable development, the EDPRS-2 (2017) mid-term review strongly emphasized the use of public-private partnerships to unlock business potential, modernize agriculture and increase resilience to climate change-related challenges. Since the sustainability of development programs is not a one term end, continued support to farmers in various dimensions of sustainability (social, economic, and environment) will remain crucial. Particular to Government and Multilateral spending on nutrition-specific interventions, the recent report on Global Nutrition (2017)¹² indicates that Rwanda registered one of the largest decreases in donor investments in nutrition-sensitive sectors from 2014 to 2015.

3.6 Institutional Arrangements and Capacity

The nature of FNS dictates interventions which are complementary or have joint ownership, therefore calling for a multi-sector approach and integrated coordination mechanisms for FNS. Consequently, to ensure that actions undertaken by many sectors and partners are consistent and efficient, FNS activities are coordinated at three administration levels: Central, Sector and District.

According to the current nutrition policy and strategy on scaling up nutrition, central level coordination is done through the Social Cluster Food and Nutrition Steering Committee, National Food and Nutrition Technical Working Group, UN agencies (WFP, UNICEF, FAO, and WHO), and the Nutrition and Food Nutrition Coordination Secretariat (NFNCS). The overall expected role of central level coordination is to conceptualize policies and strategies and to mobilize resources needed to implement FNS interventions.

12 Development Initiatives Poverty Research (2017). The Global Nutrition Report. Nourishing the SGDs. Bristol, UK.

The *Inter-Ministerial Coordination Committee (IMCC)* is the highest-level convening body under the leadership of the MOH and co-chaired by MINECOFIN as well as the United Nations Resident Coordinator. The committee brings together Government and development partners and reports to the Office of the Prime Minister.

The *Social Cluster Food and Nutrition Steering Committee (SCF&NSC)*. At the next level, senior officials from the MOH, MINAGRI and MINALOC (or from affiliated agencies), co-chair the Social Cluster and Food and Nutrition Steering Committee (SCF & NSC). Their roles are to coordinate and implement the National Food and Nutrition Policy (NFNP) and the National Food and Nutrition Strategic Plan (NFNSP). Under the current coordination arrangement, the social cluster includes the following ministries: the MoH, MININFRA, MINEDUC, MINALOC, the Ministry of Youth and ICT (MYICT), MIGEPROF, and MIDMAR.

The *National Food and Nutrition Technical Working Group (NF & NTWG)* was introduced in 2013 and is Rwanda's multi-sectoral food and nutrition coordination platform. This working group includes representation from the SCF & NSC, donors, UN agencies, civil society, academia and the private sector. UN's REACH initiative (Renewed Effort against Child Hunger and Under-nourishment) convenes the UN Network while the Donor Network is convened by USAID. The Civil Society Alliance was established in 2014, incorporating academia into the NF & NTWG. The private sector has established the SUN-National Food Fortification Alliance under the auspices of the NF & NTWG within the MOH, but its participation is still limited., Private sector engagement is key to the process of transforming the agriculture sector, thus leading to sustained FNS.

The *Nutrition and Food Coordination Secretariat (NFNCS)*, established in 2016, was formed as a government response to implement a higher priority targeted monitoring and evaluation and coordination mechanism which aims to improve nutrition and nutrition-related household food security issues. The Secretariat's responsibilities have been assumed by the National Early Childhood Program under MIGEPROF, and serve as an Advisory Body to the Social Cluster Ministries by promoting synergy among the various actors and by assisting with oversight of the country's food and nutrition activities.

At the District level, Multi-sectoral Nutrition Committees are composed of District Vice-Mayors, Directors of Health and Agriculture, nutritionists, social protection, veterinary, and hygiene & sanitation officers. The District level committees operationalize and implement the District Plans to Eliminate Malnutrition (DPEM). International and National NGOs intervene at District levels through the JADF (Joint Action Development Forum) structures. At the lowest level, CHWs as well as Farmer Promoters (FPs), play an important role in implementing community based FNS programs.

Importantly, with stakeholders across multiple sectors working to end hunger and malnutrition in Rwanda, there is room to strengthen various coordination mechanisms, thus allowing for more opportunities to achieve their set goals. While improvements in coordination across the spectrum of actors could help to ensure greater geographic coverage, especially for Districts with higher rates of malnutrition, attention on Rwanda from global initiatives, development partners, and academia is an opportunity to accelerate progress. Establishing systems which track and monitor progress, is critical to ensuring greater coverage and to evaluating impact. At the same time, lessons should be well documented, synthesized, and communicated in order to give feedback and inform policy and program design.

4. Gaps in the Food Security and Nutrition Response

Food and nutrition have become a foundational issue of national plans for economic development and poverty reduction. Linkage between nutrition and household food security has been frequently emphasised because of serious challenges facing the country on the availability, access to, utilisation and stability of appropriate foods for all families and population groups. Therefore, this section identifies gaps drawn from this Strategic Review within the areas of policy and strategic frameworks, program design and implementation, data and knowledge, as well as institutional arrangements and capacities.

4.1. Gaps in policy and strategic frameworks

The Government made commendable progress during the implementation of the MDGs, especially in the areas of poverty reduction and food security. Through high-level commitment and strong political will, inclusive policies and strategies were designed and implemented in agriculture, health, education, finance, social protection, land and sanitation sectors. These new policies and strategies incorporated some aspects of FNS. As a result of this strong commitment and progress, poverty steadily decreased during the last two decades, coupled with rising incomes and increased agricultural production. Although the assumption was made that enhancing household incomes would translate into improved FNS, however chronic malnutrition has remained high. This Strategic Review identified the following policy response gaps:

- Although several sector strategic plans reflect aspects of FNS, there is limited clarity on synergies and coherence towards addressing major FNS challenges.
- In most policy interventions, beneficiaries are selected based on the *Ubudehe* categorization scheme. However, the link between *Ubudehe* categories and FNS remains unknown. In addition, the beneficiaries' appeals process is unclear at decentralized administrative levels.
- During the last decade of CIP implementation, access to and the use of subsidized fertilizers and improved seeds, have played a major role in food production, income generation and poverty reduction. However, the current input subsidy scheme excludes resource-poor households that are labor and land constrained; calling for different policy options aggregated by the economic status of intended beneficiary groups.
- The National Social Protection Policy (2005) recognizes food insecurity and malnutrition among the key challenges that affect extremely poor households. The policy aimed (i) to protect households against agricultural risks and, (ii) to promote better health and address health risks, especially related to countering nutrition challenges. However, the policy excluded any recommendations or strategies on how these strategies should be implemented.
- Social safety net interventions are important to support vulnerable households and allow graduation out of the cycle of poverty. Currently, women-headed households are not included under special social protection programs.
- FNS policies, strategies and programmes are uninformed by any gender situation analysis and therefore, lacking in what gender dimensions to consider in the overall policy and strategic frameworks. For instance, under the VUP public works program, some types of employment are unsuitable for women, especially women who are breastfeeding or pregnant. To improve climate adaptation strategies, the country need to involve local communities in both the planning and implementation of ecosystem-based adaptation measures. Findings of the Strategic Review indicate that rainfall deficits or droughts, floods and landslides are the most common shocks that impact a household's food security situation. However, no policy is currently in place on climate change management and dissemination to ensure that agriculture promoters can provide timely and accurate

information to communities.

- The majority (70%) of food consumed in Rwandan households comes from cash purchases, making households vulnerable to changes in the price inflation of food. To date, no policy framework or mechanisms on food market price regulation exist.
- Adding nutrients to processed foods is an effective way of improving the overall nutritional quality of foods. However, there is no policy or regulatory framework to provide guidance on food fortification in Rwanda resulting in limited access to energy dense/nutrient rich foods by poor and vulnerable households.
- Effective national food control systems are essential to protect the health and safety of consumers in any country. Rwanda does not have a specific policy on food quality and safety management. This is critical along the crop value chain (production, processing and marketing) for consumer protection.
- Developing crop varieties that are rich in specific micronutrients and minerals is a promising avenue to tackle malnutrition issues in the context of Rwanda. National efforts on agriculture research made tremendous efforts in introducing and developing iron, zinc and vitamin A-rich varieties of the staple crops consumed by most Rwandans. This work is supported by a national strategy to promote crop bio-fortification.
- Although still limited, recent studies show that the prevalence of overweight and obesity is increasing among the Rwandan population in both urban and rural areas. However, no strategy is in place that deals with overweight and obesity issues.

4.2. Gaps in program design and implementation

Current FNS initiatives, programs, and interventions by the Government and its partners, cover the four food security pillars (see section 2), in addition to nutrition components around maternal infant and young child nutrition, dietary diversity, hygiene promotion, school nutrition, supplementary feeding, micronutrient deficiency, and behavior change, (refer to Appendix n° 8). However, the gaps remaining in program design (e.g. targeting, coverage, etc.) and implementation (e.g. service delivery, achievement, etc.) are described below.

4.2.1 Key gaps in food security programs

- Crop productivity is critical for food availability and accessibility and income generation for smallholder farmers. Findings revealed untapped yield potentials for most food crops grown in Rwanda. Low yields affect both crop production, income, food stocks and purchasing power at the household level, therefore exposing communities to seasonal food insecurity (especially those with small landholdings).
- Currently, farming households source 70% of their food needs from the market. This implies that there is limited diversification of agricultural production systems at the household level. Furthermore, post-harvest management, storage and small-scale processing technologies at the household level are not fully effective and operational.
- A national food reserve is important to deal with potential shocks on the food supply side. Additionally, government targets related to food reserves of major grain crops, were underachieved. This underachievement has implications on both the availability and accessibility of food and therefore, overall food security, especially in situations related to shocks on the supply side.
- Despite positive progress made in the development of road networks (all markets are now connected to primary road networks) secondary rural road networks remain inadequate, therefore requiring

additional attention. Despite a few scattered initiatives, there is absence of an effective market information system in Rwanda. Yet, food access and food stability remain sensitive to commodity price fluctuations, hence to any change in people's income (purchasing power).

- Use of fertilizer and improved seeds are key to increasing crop productivity. Despite some improvements in the overall input distribution system, gaps remain in terms of timely distributions and sufficient input quantities. Consequently, this leads to the low adoption and use of inputs, as well as an application of inadequate packages; resulting in low productivity and losses. Furthermore, local capacity to produce adequate seed supplies is still limited, leading to necessary imports from regional countries.
- In Rwanda, agricultural land is increasingly declining (average land holding is currently estimated at 0.5 ha). There are also gaps in efficient land management and use. Existing "land use" master plans are not effectively enforced, which in turn affects the land available for farming activities.
- Crop suitability maps, important for informing crop regionalization, exist for Rwanda. However, although data and tools for climate-smart agriculture are available, they are not used to optimize productivity or appropriately inform the ongoing crop regionalization process.
- Soil nutrient deficiency maps have been developed for various agro-ecological zones in the country, however, production and use of crop and soil-specific fertilizer blends is very limited. Consequently, this affects the cost of production and the profit margin of crops produced by smallholder farmers.

4.2.1 Key gaps in nutrition programs

- Generally, at the household level, women are responsible for feeding their families while men are often the cash holders. This has implications on a household's food consumption practices in regard to food stock. Additionally, female heads of households generally have lower education levels than males, thereby affecting the prevalence of child undernutrition within their households. Recent data shows female headed households (70% widows) are 47% more likely to be food insecure (CFSVA, 2015).
- Limited access to energy-dense and nutrient-rich food by poor and vulnerable households
- The existing school feeding initiatives (e.g. One Cup of Milk per Child, school gardens, etc.) have limited coverage in terms of packaging and reach.
- At the health facility level, nutrition services lack adequate infrastructure, commodities and materials such as hospitalization and rehabilitation rooms; WASH services; sufficient nutrition commodities for the effective management of acute malnutrition; appropriate warehouses with enough ventilation (for nutrition commodities) or equipped kitchens.
- Growth monitoring and promotion (GMP) at the health center level, which includes height/length for age measurements intended to monitor the prevalence of stunting, should be monitored in children up to the age of five. However, in Rwanda, GMP only reaches children from birth to 15 months based on the regular vaccination period for children. Additionally, some health centers have not fully committed to monitor this new indicator, leading to its current state of low coverage.
- In Rwanda, Essential Nutritional Actions (ENAs) are delivered via CHWs, through the MoH (health facilities), MININFRA, District authorities, community groups, NGOs and other partners. However, coverage of ENAs is still inadequate in some Districts.
- Limited awareness programs on the risks of overweight and obesity among all age categories.
- WASH interventions in are multidisciplinary and hence call for an integrated approach between

different sector ministries and organizations. To date, access to safe and clean water remains a challenge in both rural and urban areas; thereby increasing the burden on women and children who are responsible for fetching water.

- Generally, enforcement of WASH components such as hygiene, water treatment, cleanliness and the promotion of individual latrines, is still limited. WASH has also not yet been integrated into all community-level FNS intervention programmes. This has a specific impact on children.
- Over the last two decades, Rwanda has hosted many displaced populations (mainly refugees from the Democratic Republic of the Congo and Burundi) who are totally dependent upon external food aid. Similarly, the country contains a large prison resulting from the 1994 genocide against the Tutsi and other related crimes that are partially fed by the state¹³.

4.2.3 Key gaps in social protection programs

- The current coverage of social protection programs is still limited. Recent data shows that: (i) only 45% of *Ubudehe* category 1 populations received social protection support in 2016/17; (ii) 1/3 of households with unacceptable food consumption levels received any form of social assistance; and (iii) 25% of households with a malnourished child received social assistance.
- The design and implementation of individual social protection programs may not lead to expected outcomes. Interventions must be deployed in synergy with other complementary support programs to create impact at scale and promote improvements in child welfare, including nutrition. To date, program implementation coordination remains weak between social protection and agriculture programs (VUP-PW often clash with the agricultural cycle) and yet, synergy between agriculture and graduation out of the poverty cycle are crucial to making graduation sustainable and preventing fallback.
- Particular to targeting systems under public works programs, there is no harmonization of targeting principles, wage policies, timing and other program design features between VUP interventions and those of MINAGRI/RAB. This has negative implications on the access to public works employment for extremely poor households. Recent surveys showed that VUP-PW targeting of the most economically disadvantaged is poor with 35% of beneficiaries falling between the poorest two quantiles and 36% in the richest 2 quantiles.
- There is limited interaction and integration of nutrition into social protection programmes. Additionally, nutrition vulnerability criteria are not integrated into targeting or M&E systems (nutrition vulnerable households).
- While VUP includes important components on education/awareness-raising and the monitoring of pro-poor programs, the effective implementation of these components is still weak, causing a major risk for program sustainability.
- Improved targeting is critical for the effectiveness of social protection programs. However, exclusion of the poorest individuals from livelihood enhancement opportunities remains a challenge. For example, households with less than half a hectare of land are not eligible for the One Cow per Family Program (*Girinka*) although they may be in need of this support as much as someone who is eligible.
- Current social protection programs and institutional arrangements are not structured to adequately respond to potential shocks and disasters (i.e. early warning, contingency plans, financing, etc.).

13 According to the World Prison Brief Data of 2015, Rwanda has 14 prison establishments that host 54,279 prisoners. Among them, 6.5% are female prisoners and juveniles (minor prisoners) account for 0.4%.

4.3. Data and knowledge gaps

During a national roundtable that took place in March 2016 on “challenges and opportunities to end hunger and under-nutrition in Rwanda.” participants identified a lack of evidence-based programs and interventions as a key constraint in the effort to accelerate progress (IFPRI, 2016). An insufficient amount of data exists to inform policies and programs, including gaps in research systems. Monitoring selected SDG-2 targets, requires a level of disaggregated data that is not always reflected in existing national survey tools (such as EICV, DHS, CFVAS, SAS, FNSMS, etc.) which provide a bulk of information on food and nutrition statuses.

4.3.1. Key knowledge and communication gaps relevant to FNS

- A recent study conducted in nine Districts of Rwanda (Lung’aho et al., 2015) showed that success factors for a positive child nutrition status include (i) access to sufficient, safe and nutritious food; (ii) access to quality water, health services and sanitation; and (iii) care practices of women and children. However, no research exists to address the paradox of risk factors enabling the persistence of child undernutrition and stunting on a national level.
- Critical research gaps remain on how to achieve effective cross-sectoral linkages for better FNS outcomes. For example, research opportunities exist in the areas of:
 - *Linkages between agriculture and nutrition*: agricultural production affects nutrition outcomes primarily by influencing dietary intake and quality. At the same time, agricultural households that consume adequate and nutritious foods, are more likely to be able to produce sufficient food for consumption. However, other factors such as features of food markets and household gender dynamics can change this assumption.
 - *Linkages between agricultural markets and nutrition*: increased market linkages for and the commercialization of semi-subsistence agriculture, are important elements to improve nutrition outcomes among resource-poor households. Food markets influence nutrition outcomes primarily through access to food and agricultural incomes. Inadequate market access can take away food and nutrients from the household as agricultural incomes are not allocated toward food or healthcare.
 - *Linkages between nutrition and gender in agriculture*: the empowerment of women in the agricultural sector is essential for nutrition. Understanding how gender influences the impact of agricultural production on maternal and child nutrition outcomes is an important research priority area for Rwanda.
- Ensuring the stability of food security in Rwanda requires a re-design and strengthening of national research programs in the areas of plant breeding, animal genetic improvement, climate modelling and resilience, biotechnology, food technology (including fortification and food supplements), postharvest handling, food storage and processing, nutrition, and horticulture, among others. Research outputs in these areas are currently insufficient.
- WASH is often indicated as a component of nutrition. However, in referencing existing literature in Rwanda, it is still difficult to determine the extent to which access to water and proper sanitation impacts the level of malnutrition, for example. There is an evident knowledge gap on linkages between WASH, food consumption and nutrition. Communications and advocacy play an important role in nutritional outcomes. Limited levels of involvement by media outlets (TV, radio, social media, theater, etc.) in nutrition education and awareness. Similarly, no strong lobby or advocacy groups exist to influence policy makers’ knowledge on the cross-cutting nature of FNS issues.
- Specific to complementary nutrients, additional research is needed to understand the nutrition gaps,

micronutrient deficiencies other than anemia, and diet diversification between age groups and varying geographical locations. There is a need to understand why some regions perform better than others in terms of food and nutrition.

4.3.2. Data and Monitoring and Evaluation gaps relevant to SDG-2 achievement

The Monitoring and Evaluation (M&E) framework of FNS activities is complex and requires a more robust and comprehensive approach. Currently, there is a scarcity of data necessary for documenting successes and failures as well as the adverse effects of respective programmes in all relevant sectors. The process of identifying the M&E gaps in FNS starts by first categorizing major sectorial outcomes followed by their corresponding linkages to draw “joint indicators” in line with SDG 2 targets. In fact, more than one indicator is required for FNS to measure the different contributions of each sector’s interventions. Most interventions have indicators that mainly capture the predicted effects on FNS but with little evidence. However, indicators that describe the actual process are missing in many cases. Only the MOH and MINAGRI have M&E matrices that cater specifically to some FNS indicators. Other institutions report through MINALOC or on ad-hoc basis. Overall, the review noted the following M&E gaps:

- There is no comprehensive approach to monitor and evaluate FNS. Food security, nutrition, health, social protection and WASH interventions are not evaluated in an integrated and comprehensive manner.
- Evaluation and impact assessments of programmes are rarely conducted. For instance, some partners decide to complete an impact assessment internally for the sake of informing their programmes without necessarily sharing the findings with other stakeholders for the next level of programming at the national level.
- The establishment and design of FNS targets is not based on a thorough or deep analysis that would have the scope of knowledge needed to inform any achievable goals. Oftentimes, available data-sets are not fully analyzed and disseminated for evidence-based planning and decision making.

In terms of data gaps, the following have been noticed mainly in line with the second SDG’s indicators and targets:

- *Lack of disaggregated data on FNS outcomes in most of interventions/programs:* in order to generate evidence that informs policies and programs, disaggregated data (by sex, age group, employment status, vulnerability level- i.e. disabilities, economic activity, poverty status, geographic location- i.e. rural vs. urban households, AEZs, etc.) is paramount.
- *Lack of data on the impact of nutrition interventions on indicators with a correlation likelihood with stunting,* most notably Minimum Acceptable Diet (MAD) and its component indicators, namely, minimum dietary diversity and minimum meal frequency.
- *Lack of data on the percentage of agricultural areas following sustainable agricultural practices:* SDG 2 identifies this as an important indicator to be monitored, yet existing agriculture surveys scarcely capture information on the impact of climate change (including data on resilience practices) on national and household FNS.
- *Lack of up-to-date data on livestock and related FNS interventions:* in comparison to the practice in the crop production sector, no regular system for data collection on livestock programs exists in Rwanda. This creates loopholes in analysing the country’s food security status.
- *Lack of data on the percentage of agricultural households using irrigation systems compared to all agricultural households in the country:* SDG 2 defines this as an important indicator to be monitored. However, detailed data on irrigation practices is not clearly captured in existing agriculture surveys.

- *Limited data on the percentage of agricultural households using eco-friendly fertilizers compared to all agricultural households using fertilizers:* SDG 2 defines this as an important indicator to be monitored; yet information on climate change resilient practices in terms of the use of eco-friendly fertilizers (i.e. compost, green manure, mulching, improved fallow, agroforestry legume crop usage, etc.) is not captured in the current survey tools.
- *Lack of data on the volume of production per labour unit for small-scale food producers (i.e. women, indigenous peoples, family farmers, pastoralists, fishers, etc.):* production per labour unit is an important indicator under SDG-2. To monitor the progress of this indicator, there is need for data collection in terms of income, access to land, other productive resources and inputs, finance services, market opportunities, etc. for the formerly mentioned farming classes.
- *Lack of data on the percentage change in import and export tariffs on agricultural products:* SDG 2 defines this as an important indicator to be monitored. However, it is not currently captured in any of the existing development frameworks for Rwanda. Types of required data are those related to domestic, regional and international trade/markets of agricultural products.
- *Lack of data on agricultural export subsidies:* SDG 2 defines this as an important indicator to be monitored, which is not the case presently. The type of data required are those related to domestic, regional and international trade/market of agricultural products.
- *Lack of current data on a seasonal food balance sheet as well as the national availability of energy (calorie), proteins and lipids from harvested staple crops.* In fact, the SAS does not provide this kind of analysis although this information would be helpful in informing related decision making to improve the production of nutritious staple crops and access to food for all citizens.
- *Limited household data on under-five malnutrition and vulnerable groups (for example, elderly, sick people, etc.):* this information is important to design targeted interventions focusing on categories of vulnerable population groups.
- *Limited data on the graduation framework for households in Ubudehe's lowest social categories (1 and 2):* this information is important to design targeted interventions focused on vulnerable population groups.
- *Lack of data on women's participation, efficient time use, perceived returns on labor, discretionary income and decision-making power:* women's economic empowerment in agriculture would provide more quantitative data. To date, qualitative data dominates the data available which has the potential to be biased based on people's perceptions.

4.4. Gaps in institutional arrangements and capacity

- Previous sections of this Strategic Review have shown how there is a conducive environment for institutional arrangements of FNS. Various coordination and accountability mechanisms exist among sectors relevant to FNS. However, the existing institutional structures do not adequately foster the integration of respective efforts needed across the relevant government sectors.
- The NFNCS is the institution responsible for the coordination of food and nutrition. However, it has limited power for vertical accountability. One of the Secretariat's main responsibilities is to enforce horizontal synergies; yet, the Secretariat has limited horizontal power over sectors contributing to FNS.
- Expected individual sectorial effects on FNS are not necessarily leveraged into the planning of the partner or stakeholder ministry, therefore there is need to improve governance systems and accountability— joint planning, budget allocation, activity implementation and M&E for FNS.

- Only some of the ministries under the Social Cluster have fully dedicated food and nutrition focal points (MoH, WASH, MINEDUC, MINALOC, MYICT, MIGEPROF, and MINAGRI). Where they do exist, appointed staff are too few and often overloaded due to conflicting priorities. Additionally, the majority of Ministry focal points lack education backgrounds relevant to the mainstreaming of FNS in sector planning and implementation.
- At a decentralized level, a multisector District Food and Nutrition Steering Committee (DF&NSC) under MINALOC, is accountable to the District Mayor. In theory, the Committee is comprised of key officers representing MoH, MINAGRI, MIGEPROF, MINALOC/LODA, MININFRA and MINEDUC. However, the effectiveness of these coordination mechanisms depends mainly on donor and partner' support.
- Capacity-related gaps are observed at all levels both in terms of technical expertise and financial resources. The concept of FNS is understood differently by different individuals and also by intervening institutions across relevant sectors. Consequently, intervention modes and the nature of interventions do not necessarily converge into FNS outcomes. In addition, limited knowledge and understanding of FNS concepts at all levels of decision-making (both at central and decentralized administrative entities levels) constitute a handicap to the delivery of FNS programmes.
- All sectors relevant to FNS do not have personnel with the explicit expertise required to plan, implement and measure the performance of programmes relative to FNS. For instance, at the level of District Health Centres, nutritional tasks are sometimes part of the job description of the persons in charge of social affairs known as social workers.
- There is room for capacity development at the level of the individual as nutrition and diet are strongly influenced by cultural beliefs and consumption behaviors. Additional potential also exists for mass education and skills transfers with more of a focus on FNS.
- Health care givers (including CHWs) are irregularly trained in nutrition-specific interventions such as maternal infant and young child nutrition (MIYCN), management of acute malnutrition, and management of diet-related non-communicable diseases.
- Agricultural extension agents are inadequately trained on nutrition-related subjects and therefore unable to incorporate FNS related issues into the information package delivered to farming communities.

5. Policy Recommendations to Improve FNS in Rwanda

The current stand of the Strategic Review helps to draw some policy recommendations in response to observed gaps in the policy and strategy frameworks, programme design and implementation, data and knowledge, as well as institutional arrangements and capacity to enhance food and nutrition security in Rwanda (see section 4). Overall, 112 recommendations have been formulated in different categories. Appendix n° 11 describes responsible institutions and an implementation timeframe for each recommendation.

5.1. Enhancing policy framework

Rwanda has an enabling policy environment for FNS programming. However, the review identified a number of policy and strategy-related gaps and therefore recommends the following:

- A1. Improve coherence among sector policies and strategies on FNS interventions during the current national planning cycle.
- A2. Investigate linkages between Ubudehe categories, food security and nutrition to better inform policy interventions.
- A3. Explore policy options that allow resource-poor households to effectively access and use subsidized agricultural inputs such as fertilizers, seeds, lime and small-scale irrigation kits.
- A4. Include women-headed households in the special social protection programs as most have limited land and fall into very poor economic categories.
- A5. Update the existing Social Protection Policy to reflect how social safety-net interventions are linked to FNS outcomes and ensure its alignment with EDPRS-3, Vision 2050 and the SDGs.
- A6. Develop a national policy on climate change that gives direction on how to deal with recurring climate-related shocks.
- A7. Develop a policy on agriculture commodity price regulation and a framework to monitor the inflation of food prices, including coping mechanisms in the event of a price crisis.
- A8. Effectively address gender equality and women's empowerment in national policies and strategies based on well-informed gender analysis with disaggregated data on gender issues.
- A9. Develop a national strategy to prevent overweight and obesity among all categories of the Rwandan population.
- A10. Develop a policy on food fortification in Rwanda, including standards on ration additions of essential vitamins and minerals to food products) to promote access to energy-dense/nutrient-rich foods by poor and vulnerable households.
- A11. Establish a national strategy on crop bio-fortification and strengthen research programmes on bio-fortified crop varieties.
- A12. Develop a specific policy on food quality and safety management.
- A13. Currently, food security and malnutrition are featured as foundational issues in EDPRS-2. The Government should explore the option of requalifying "food and nutrition security" as a standalone cross-cutting sector in order to increase focus on planning and resource allocation.

5.2. Improving program design and implementation

Rwanda designed and implemented programs that should be enhanced or scaled up to accelerate progress toward ensuring food security and eliminating malnutrition. Based on the remaining identified gaps, the Strategic Review recommends:

5.2.1. Regarding food security programs

Issues	Recommendations
Low crop productivity gains	<p>B1. Continue investments in programs that enhance the sustainability of crop productivity for smallholder farmers such as irrigation, land-husbandry, mechanization, agroforestry, and integrated soil fertility management practices.</p> <p>B2. Revise the existing input subsidy scheme through improved targeting of program beneficiaries and the increased access of poor households to quality seeds, fertilizers and lime.</p> <p>B3. Strengthen and expand proximity extension services (i.e. <i>Twigire Muhinzi</i>, Farmer Field Schools, Community Animal Health Workers, etc.) in the efficient use of input packages and good agronomic practices to maximize outputs; including the involvement of private service providers.</p> <p>B4. Increase marketing opportunities for agricultural products to further increase the income levels of rural farming households. This includes strengthening the capacity of extension workers in the area of supply chain management.</p> <p>B5. Promote climate-resilient, stress-tolerant and nutrient-responsive varieties to ensure sustainability.</p> <p>B6. Operationalize the existing crop protection strategy that provides guidance on how to monitor and cope with emerging diseases and pests.</p>
Limited diversity of agriculture production and food	<p>B7. Scale-up existing programs that promote nutritionally diverse foods (e.g. vegetable kitchen gardens, mushroom production, fruits, poultry and fish farming, etc.).</p> <p>B8. While taking into account new crop varieties with high nutritional values and benefits, expand the range of priority crops under the crop intensification program.</p> <p>B9. Promote and support the development of post-harvest management, storage and processing technologies at the household level.</p> <p>B10. Scale-up the existing government subsidy scheme on small-scale irrigation equipment to include farmers growing crop during the lean season (season C). This shall be coupled with the promotion of short-duration crop varieties.</p> <p>B11. Expand existing initiatives that allow farmers access to market information and commodity traders.</p> <p>B12. Promote entrepreneurship and a business-oriented mindset among rural households in order to diversify their income sources through off-farm job opportunities.</p>

Insufficient food market infrastructure	<p>B13. Expand investment in the improvement of market infrastructure (e.g. feeder roads development, cold storage, produce collection centers, market information access, etc.) to stabilize food prices and optimize access to diversified food items all Rwandans.</p> <p>B14. Promote value addition innovations targeting nutrient-rich foods (e.g. fruits, vegetables, milk, fish, etc.).</p> <p>B15. Develop innovations in produce marketing that can promote increased market integration of smallholder farmers (e.g. warehouse receipt system, commodity exchanges, etc.).</p> <p>B16. Develop an effective Market Information System (MIS) for Rwanda to help consumers deal with changes in commodity prices throughout the entire year.</p>
Limited food storage capacity	<p>B17. Increase the capacity of the National Strategic Food Reserve to deal with potential sudden food shortages.</p> <p>B18. Expand public investment in collection centers for agriculture produce (milk, vegetables, fruits, honey, etc.).</p> <p>B19. Scale up and disseminate innovations on household post-harvest management (low-cost silos, hermetic bags, etc.) through private service providers and farmers' cooperatives.</p> <p>B20. Promote private sector investment in food storage and food market systems (e.g. metallic silos, cold chain and cold transport logistics, etc.) to reduce the price of nutritious food items.</p>
Inefficient input distribution system	<p>B21. Under CIP, strengthen a private sector-led inputs system to avoid procurement, distribution and retail delays to smallholder farmers.</p> <p>B22. Establish linkages between input markets, agro-processors and output markets.</p> <p>B23. Continue supporting initiatives that enhance the knowledge of smallholder farmers, commodity buyers and other actors on value chain financing aspects.</p> <p>B24. Review and expand existing crop insurance programs (inputs and yield insurance products), and where applicable, establish crop insurance within the subsidy program.</p>
Decreasing landholding & inappropriate land use	<p>B25. Enforce implementation of existing land use master-plans to protect land that is suitable for agriculture across all Districts of Rwanda.</p> <p>B26. Initiate a turn-around program aimed at optimizing all currently underutilized developed lands (terraced and irrigated fields).</p> <p>B27. Promote alternative livelihood development opportunities (i.e. non-agriculture employment prospects) through close collaboration with relevant government ministries (agriculture, ICT, youth, public service and labor, education/TVT, etc.) and the private sector.</p> <p>B28. Update the crop regionalization policy based on existing suitability maps and changing rainfall patterns.</p>
Blanket fertilizer recommendations	<p>B29. Promote the local production and use of fertilizer blends that fit the requirements of specific crops and soils.</p> <p>B30. Expand the use of secondary and micro-nutrients to optimize productivity and value-cost ratios and raise farm income levels.</p>

5.2.2. Regarding nutrition programs

Issues	Recommendations
<p>Limited nutrition education and inequitable involvement of men and women in nutrition activities</p>	<ul style="list-style-type: none"> C1. Strengthen nutrition awareness and education programs at the household level. C2. Strengthen woman’s education, empowerment and influence within the household; including special access to extension services. C3. Integrate a nutrition education component into all relevant agriculture programmes and projects to improve consumption of nutritious crops among producing farmer households C4. Develop programmes that support awareness campaigns on the prevention of overweight and obesity among all categories of the population. C5. Strengthen nutrition and gender education components in the training curriculum of agriculture extension agents.
<p>Limited coverage and content of essential nutrition actions (ENAs)</p>	<ul style="list-style-type: none"> C6. Ensure consistency in implementing the Essential Nutrition Actions and promote efficient geographic targeting across the 30 Districts of the country. C7. Develop extension messages related to the safe handling of food items and safe storage practices. Furthermore, integrate these messages into the training packages for FFS facilitators, farmer promoters, CHWs and other private services providers. C8. Establish national dietary guidelines to inform consumer food choices and facilitate nutrition education and behaviour change activities through grass roots agriculture and health extension workers. C9. Increase community sensitization on the importance of ensuring that children under 5 regularly attend GMP sessions at health center level. C10. Strengthen programs that promote access to energy-dense and nutrient-rich foods, especially for children and pregnant and lactating women groups (PLWG).

Lack of integrated approach for WASH activities	<p>C11. Expand access to potable water in both rural and urban areas through increased investment in treatment and supply infrastructures.</p> <p>C12. Promote the integration of WASH in all community-level food and nutrition security intervention programmes.</p> <p>C13. Design and implement awareness programmes that promote improved sanitation and enforce the development of individual latrines in rural areas.</p> <p>C14. Expand and strengthen support to CHWs and other grassroots nutrition agents who disseminate sanitation and hygiene messages.</p>
Insufficient health facility infrastructure, commodities and materials for nutrition services	<p>C15. Improve health facility infrastructures to properly accommodate nutrition services.</p> <p>C16. Mobilize and allocate sufficient budgets, commodities and materials for nutrition services at the health facility level.</p>
Limited coverage of school feeding initiatives	<p>C17. Strengthen programmes that promote access to energy-dense and nutrient-rich foods for school-going children.</p>
Large number of refugees and prisoners with extreme food insecurity	<p>C18. Maintain external food assistance for refugees and other forcibly displaced populations with the aim of “leaving no one behind.”</p> <p>C19. To avoid malnutrition, provide sufficient and quality food for refugees residing in existing camps in Rwanda. Recent assessments indicate that access to nutritious food by refugee households is inadequate under current food rationing which lasts for only 23 days of the month.</p> <p>C20. Promote alternative income sources other than humanitarian assistance to refugee camps through the effective implementation of the newly developed Strategy on Economic Inclusion of Refugees.</p> <p>C21. Support interventions within refugee camps that promote other dimensions of nutrition security such as WASH.</p>
Prisoners community with food insecurity risks	<p>C22. Maintain feeding programs to prisoners with the aim to “leaving no one behind.”</p> <p>C23. Provide sufficient food to prisoners living in prison establishments to avoid malnutrition.</p> <p>C24. Strengthen existing alternative income sources of and food for prisoners through support to the strategy developed by the Rwanda Correctional Services (RCS).</p> <p>C25. Support interventions in prison establishments that promote other dimensions of nutrition security such as WASH.</p>

5.2.3. Regarding social protection programs:

Issues	Recommendations
Limited coverage of social protection programs	<p>D1. Continue the expansion of social safety net interventions to include individuals in lower economic classes, those who are food insecure, and households with children affected by malnutrition.</p> <p>D2. Ensure that the most food insecure and vulnerable households are accurately categorized under the appropriate <i>Ubudehe</i> classification scheme in order to benefit from targeted pro-poor support opportunities.</p> <p>D3. Improve and revise existing mechanisms to address complaints and to ensure increased transparency and inclusiveness.</p> <p>D4. Include <i>Ubudehe</i> categories 2 and 3 among beneficiaries receiving blended fortified food with Government subsidies. However, an exit strategy with clear timelines must be elaborated and enforced for each category.</p>
Lack of synergies between social protection and complementary agriculture programs	<p>D5. Establish strong partnerships between MINAGRI and RAB and MINALOC and LODA to ensure a coordinated approach when targeting agricultural asset transfer schemes and agricultural extension services to poor and vulnerable population groups.</p> <p>D6. Align social protection and agriculture priorities with the District-level <i>Imihigo</i> performance contracts.</p> <p>D7. Build the capacity of Local Governments to coordinate social protection interventions with other programs and services delivered at the Sector level.</p> <p>D8. Strengthen the <i>Girinka</i> Program and other livestock programmes in order to achieve impact at scale, including the distribution of small livestock to poor and vulnerable households that are land-constrained.</p> <p>D9. Timely payment for VUP-PW to allow beneficiary households to re-invest in productive activities such as inputs.</p> <p>D10. Enforce the harmonization of cross-sectoral M&E systems between MINAGRI and MINALOC and create a dedicated joint working group.</p>
Uncoordinated beneficiary targeting between social protection and agriculture interventions	<p>D11. Reinforce the harmonization of project design and beneficiary targeting under public works (PW) programmes (e.g. feeder road construction and maintenance, land terracing, construction of drainage ditches, reforestation, etc. under VUP and MINAGRI's PW schemes) in order to efficiently respond to the needs of extremely poor households <i>and communities which are exposed to natural disasters</i>.</p> <p>D12. Strengthen the capacity of Local Governments and agents representing other sector line ministries with the objective of promoting the adoption of a community-based approach to labor-intensive PW within other sector programmes.</p> <p>D13. Improve planning and timing aspects between agriculture and social protection PW to ensure that employment and income opportunities for poor households are sustained even during off-season agricultural periods.</p>

<p>Limited interaction and integration of nutrition in social protection programs</p>	<p>D14. Improve nutrition-sensitive social protection interventions and strengthen linkages within the needs of target beneficiary groups.</p> <p>D15. Support a comprehensive capacity development and nutrition education strategy for extension services.</p> <p>D16. Develop an effective shock-responsive/sensitive social protection system (including an early warning system, contingency plans, financing and adequate institutional arrangements) that will strengthen risk mitigation and rapid response systems to weather shocks and disasters that induce food insecurity among poor households during difficult years. The existing technical working groups and cluster meetings are among the entities that would need to coordinate all initiatives within this area.</p> <p>D17. Continue supporting the subsidized health insurance scheme.</p>
<p>Uncertain graduation mechanisms along <i>Ubudehe</i> social categories and sustainable livelihood</p>	<p>D18. Customize and scale-up implementation of the minimum package for household graduation between <i>Ubudehe</i> levels (currently being piloted). This package includes training, coaching support, and linkages to complementary advisory services related to business, agricultural and veterinary services, among others.</p> <p>D19. Strengthen the follow-up and advisory services offered to pro-poor programme beneficiaries to ensure sustainability beyond the direct provision of support.</p> <p>D20. Enhance the VUP's awareness-raising component to increase the knowledge-base of program beneficiaries in critical livelihood topics including nutrition, family planning, HIV, and AIDS, among others.</p>

5.3. Closing data and knowledge gaps

In order to generate evidence to inform policies and program interventions, gaps in data and knowledge must be filled. This Strategic Review recommends the following actions:

- E1.** Initiate national-level studies to assess the underlying risk factors behind the persistence of child under nutrition (e.g., by gender, residence and wealth quintiles) despite the progress made in food production and poverty reduction; reasons why infants and young children tend to become more malnourished after the introduction of complementary foods; why some districts/regions are progressing faster than others in reducing malnutrition; and the impact of nutrition interventions on the Minimum Acceptable Diet, among other possible topics of study.
- E2.** Review the methodology of national statistics to collect disaggregated data on household FNS outcomes by sex, age group, employment status, vulnerability level, (disabilities, economic activity, and poverty status) and geographic location (rural or. urban households, AEZs, etc).
- E3.** Strengthen and capacitate the national research system to increase research outputs in new areas relevant to FNS as described above.
- E4.** Improve the design of EICV and the DHS to capture data linkages between WASH and malnutrition.
- E5.** Develop a national communications plan that involves all types of media in conveying innovative messages and approaches on the consumption of nutritious food and the eradication of malnutrition.
- E6.** Carry out standardized studies aimed at understanding other micronutrient deficiencies and diet diversification between ages and geographic location.

- E7. Establish and/or improve monitoring and evaluation systems that provide continuous feedback mechanisms to inform FNS programs at all levels. For instance, to better understand the food and nutrition security situation in the country, the following additional intermediate outcome indicators could be integrated into the M&E framework: *diversity of foods produced on-farm, smallholder farmers household income levels, physical access to markets, local market prices of nutrient-rich foods (or the price of a healthy diet), food preferences, women's empowerment in the agriculture index, productivity and diversity of off-season farming, proportion of sustainable agriculture practices, the minimum acceptable diet for children 6-23 months, minimum dietary diversity for women of reproductive age, the household dietary diversity score, the household hunger score, the coping strategies index, etc.*
- E8. Train and involve community-level workers in collecting data that will improve the monitoring and evaluation of FNS progress.
- E9. Institute impact research requirement on programmes supporting homestead production (for example CIP, One Cow per Poor Family Programme (*Girinka*), kitchen gardens programme, and the small livestock rearing programme).
- E10. Generate information on nutrition budgets and spending to improve accountability and to track and monitor resourcing progress. Create systems for data and information sharing, including an accessible dashboard or portal for best practices for scaling up successful programmes and interventions.
- E11. Create systems for data and information sharing, including an accessible dashboard or portal for best practices for scaling up successful programmes and interventions.
- E12. Improve the SAS design to capture data required to monitor SDG 2 targets and provide an analysis on national food balance sheets, while taking into account the supply (domestic production, imports, exports, change in stocks and available supply), domestic utilization (feed, seed, waste and other uses) and per capita food supply (Kcal, protein and fat/person/per day). Food balance sheets should be a regular annual exercise based on countrywide pre-harvest and post-harvest information.
- E13. Improve the scope of DHS to include data collected on other micronutrient deficiencies (such as, vitamin A, other minerals and vitamins) other than anaemia
- E14. Commission policy studies on food systems to understand linkages between food needs, preferences, production and costs. Provide guidance on how to fill nutrient gaps at the national, local and household levels. These studies should also explore how the food basket price can be progressively reduced in Rwanda.
- E15. Build a framework and database of *Ubudehe* beneficiary households.

5.4. Strengthening coordination and capacity improvement for FNS

The Strategic Review revealed existing gaps in terms of institutional arrangements within and between institutions (see section 4) and therefore recommends the following:

- F1. Continue strengthening cross-sectoral collaboration to deliver interventions (policies, programmes, activities, etc.) at scale through the newly established "joint *Imihigo*" framework.
- F2. Revisit the option of placing the NFNCS under a higher-level office for more effective vertical and horizontal coordination of activities under line ministries and agencies.
- F3. Develop a capacity building plan to enhance the skills and expertise of stakeholders related to FNS.

Additionally, the majority of different Ministry focal points have education backgrounds that are not relevant to the mainstreaming of FNS in sector planning and implementation. Government and partners should train additional nutrition specialists who can be placed in various ministries that engage in cross-cutting FNS issues.

- F4.** Mobilizing resources to finance the FNS sector will need to go beyond the resources allocated to a one basket of funds that is specific to FNS interventions. Alternatively, increasing the budget proportions in these relevant sectors can also increase needed resources. In addition to conventional sources of financing, the Government and partners will need to come up with innovative resource mobilization models to finance FNS.
- F5.** Partners in all clusters contributing to FNS should have clear and integrated accountability mechanisms to ensure “joint planning, resourcing, implementation, and evaluation.”
- F6.** Conduct regular training sessions for health care givers (including CHWs) in nutrition-specific interventions such as maternal infant and young child nutrition (MIYCN), management of acute malnutrition, and management of diet-related non-communicable diseases, etc.
- F7.** Invest in the capacity development of agricultural extension agents on nutrition-related matters and develop appropriate information packs for farmers to improve the link between food production and nutrition security.
- F8.** Develop an operational plan to implement the National Food and Nutrition Strategic Plan, including strengthening the human and financial capacities of the NFNCS.
- F9.** Continue the enforcement of a strong involvement of Local Government (Districts, Sectors, Cells, and Villages) in policy and program planning for food security and nutrition.
- F10.** Strengthen community-level programs which build the capacity, knowledge, and accountability of households to synergistically address food utilization, sanitation and hygiene.

6. Conclusions

The global community, including the Government of Rwanda, has agreed to a post-MDG development agenda with a set of 17 Sustainable Development Goals (17 SDGs). Among these SDGs, SDG 2 aims to “End hunger, achieve food security and improved nutrition and promote sustainable agriculture.” Integrating the SDGs into the existing national development frameworks is a process— which, to some extent, may require some institutional reforms and the adaptation of policies and strategies.

Rwanda has already embarked on this process and identified a list of possible indicators to consider in pursuing the SDGs while defining modalities for their integration into respective sectors is ongoing. Therefore, this Strategic Review is a timely exercise, especially at this critical stage where the country is in preparation for the next generation of *Vision 2020*, *7YGP*, *EDPRS* and subsequent sector strategic plans, policies and strategies.

This Strategic Review is understood as being one of the critical steps to generate a comprehensive understanding of the current FNS status and to identify policy and development response gaps in achieving FNS in Rwanda.

Following comprehensive analysis, the Strategic Review findings have revealed important progress made by the Government of Rwanda and development partners in addressing issues of food insecurity and malnutrition over the last two decades. However, as discussed previously, some challenges and gaps remain to be addressed in terms of policy and strategic frameworks and programme implementation. Overall, issues related to food and nutrition security are foundational and cross-cutting along various relevant sectors including agriculture, health, education, social protection, climate change adaptation, gender and family promotion and disaster preparedness and management. Major conclusions of this Strategic Review are drawn from the analysis of the status of FNS, its related policies, strategies, and programme implementation and the gaps identified in each of these areas.

This Strategic Review found that Rwanda continues to face challenges in terms of food availability, accessibility, utilization and stability. This situation is due to several factors including low production levels of some crops, which in turn are influenced by low yields, and limited access to fertilizers and improved seeds; undiversified food consumption at the household level with limited nutrient supplements; some deficiencies in food marketing; and limited climate change-resilient farming systems. Moving towards stable FNS systems will require increased investment by government and development partners to address these challenges in an integrated intervention approach.

In the area of *policies, strategies and plans*, greater consideration is given to FNS related aspects by the existing national development frameworks, policies and sector strategic plans. However, the review has observed little evidence of any linkage between policy and strategic goals and planned food and nutrition security outcomes (e.g. food availability, food access, levels of stunting, access to safe or drinking water and sanitation). While some gaps remain in each sector policy/strategic plan, the operationalization of the “Joint Plan to Eliminate Malnutrition” has not yet taken shape. Furthermore, there is an unclear indication of the directional effects of each sector policy to inform whether these complement, influence or cause changes in food and nutrition. Thus, the logic in these strategies is a “two-step process.” The *first category* relates to the process of integrating FNS goals and objectives into national and sector policies and plans. Most of the policies and strategic plans read during this Strategic Review fulfilled this requirement, although at different levels of consideration. The *second category* of processes is linked to disjointed planning and M&E frameworks which make it difficult to identify the types and nature of interactions between different policies and strategies related to FNS. Consequently, it is difficult to assess the individual contribution of policy/strategy and sector response levels on issues pertaining to FNS in Rwanda.

Within the area of *programme design and implementation activities*, the multi-sectorial approach

envisaged by the Government and its partners to implement programmes and activities leading to FNS remains less practical. This is due to many reasons. For example, some goals and proposals may have an indirect effect on FNS and are thus interpreted per their likelihood of impact. Secondly, intervention areas where stakeholders have the strongest presence include the promotion of kitchen gardens (including promotion of mushroom production) (19%), IYCF practices (18%), hygiene (17%) and behavior change communication (BCC) campaigns (15%). While these campaigns play an important role in addressing FNS, they represent only a portion of the many multi-sectoral approaches necessary to adequately address this initiative.

With respect to *financial resources for food and nutrition security*, development financing in Rwanda requires additional support from donor countries and organizations. FNS financing is channeled through resources allocated at the sector-level from the national budget or by organizations' own internally generated revenues. This Strategic Review revealed that, in the national revised fiscal budget, the share for ministries engaged in FNS, fell between the range of 17% and 34.8% during 2013/2014 to 2016/2017. Although difficult to determine financial estimates of specific activities linked to FNS, the annual budget increments allocated by the reviewed sectors (agriculture and health) measure between 5 and 8%. The amount allocated by the agriculture sector only accounts for half of the 10% allocation level committed during the Malabo Declaration with 49% of the entire sector's annual budget, reliant on external funding. Likewise, the health sector is heavily dependent on external funding with about 50% dependent on outside sources. Furthermore, specific FNS activities receive low prioritization in terms of resource allocation, during the annual *Imihigo* Performance Contracts, in which they receive an estimate of 5% of the total planned budget (see FY- 2015/16). The resource mobilization capacity of social protection programmes constitutes about 12% of the annual budget increment; this stands as a proxy for institutional capacity to raise the resources needed to implement planned activities. Thus, budget allocations to food and nutrition-related activities need to be more specific and to increase if higher impacts are expected. Comparatively, the role of the private sector in raising funds and investing in FNS-related activities is still limited, partly because FNS continues to be perceived as more of a social responsibility of the government rather than an investment opportunity.

With regard to *Institutional arrangements and capacities*, the findings of this Strategic Review assume the existence of various coordination and accountability mechanisms within the central and local government levels. Unfortunately, there is limited information on how the existing structure fosters the necessary integrated and joint approach to achieving FNS. The newly established National Food and Nutrition Coordination Secretariat is the institution responsible for food and nutrition coordination within Rwanda. The effectiveness of the existing coordination mechanisms will depend on a clear accountability mechanism to ensure that vertical relations among the institutions, are translated into realistic plans and program implementation.

Finally, this Strategic Review opens up a debate on whether food and nutrition security should be considered a standalone sector beyond being a foundational issue in the ongoing national sector strategic planning. This revised division would give FNS more weight in terms of planning, programme implementation, resource mobilization, and coordination and institutional arrangements.

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Appendices

Appendix 1. Guide questions used for data collection and stakeholder's interviews for the Strategic Review in Rwanda

Purpose of the study

The main purpose of this Strategic Review is to:

- establish a comprehensive understanding of the current situation of food and nutrition security,
- identify any gaps in the national response to food insecurity and malnutrition,
- provide an overview of potential measures and mechanisms in priority areas towards achieving targets under SDG-2, and
- provide recommendations to inform policies and strategies on food and nutrition in line with the NST1 (the third generation of EDPRS) in Rwanda.

Below is a proposal of guide questions that will be used for additional data collection through a semi-structures interview with key stakeholders.

Proposed template for data gathering and recording

Characteristics of key informant

Name of the Institution consulted	
Sector of the institution ²	
Name of Key informant	
Gender	
Position	

Policies, Strategies/ Programmes

1. What are the most current policies, strategies, and programmes, to promote food security and nutrition? (At national level and Specific sector). What are the key priorities to be incorporated into the next national planning documents (7YGP, EDPRS, and Vision 2050)? Are there already some initiatives to ensure that these priorities are integrated? What gaps?
2. How are genders aspects mainstreamed in policies/strategies/ programs and plans on Food and Nutrition Security?

Main food security and Nutrition targets:

1. What are the main issues underpinning food and nutrition security as per your experience and in the perspective of your institution/ sector?
2. How your institution / organization does identification of issues/ enabling factors affecting food and nutrition security sustainability? How are these issues streamlined into the national planning and sector strategic planning process? What are the loopholes in food and nutrition targets?

Programme implementation and Activities

1. What major programmes and activities implemented by the organization or institution to achieve food and nutrition security targets?
2. What are your beneficiaries and partners? How are they selected? What is the coverage, and what delivery mechanisms or channels? Key achievements / benefits and impacts resulting from the programme implementation? Who are the stakeholders and their roles? What gaps?
3. What are gender specific issues related to food and nutrition security experienced during programme implementation? How are they addressed?
4. How can social protection programmes be more effective towards food and nutrition security?
5. What are the challenges pertaining the poverty graduation process? How specific nutrition issues are addressed during programme implementation? What are the gaps (probe)?

Resources for Food and Nutrition Security

1. What are the major sources of funding? What is the estimate amount from each partner and for what period? What proportion allocated to specific food and nutrition related interventions? For what period? What are the funding gaps already observed?
2. Do you expect the current sources of funding to be the same for the next five years? What changes are anticipated in this regard? What are the gaps?

Institutional Arrangement and Capacity

1. What is the current institutional arrangement to respond to food insecurity and malnutrition? (e.g. at national level, Sector level, District level, and community level)?
2. What are the coordination and accountability mechanisms related to food and nutrition security? (e.g. at national level, Sector level, District level, and community level)?
3. What are the capacity gaps in the area of food and nutrition security? (Policy and legislation, institutional accountability, strategic planning and financing, stakeholder program design and delivery, engagement participation of non-state actors)? What are the existing mechanisms for capacity strengthening towards improved food and nutrition security? What are the most areas needed for capacity strengthening?
4. Is there any M&E framework for food and nutrition security components? Sources of data? Are these Disaggregated? (Sex, age group, employment)
5. What are reports in relation to Food and nutrition security shared from your institution to the high level, and how often?

Interactions with other policies

1. What are other policies/strategies/programs from other sectors reinforcing, enabling, or constraining the achievement of your goals towards food and nutrition security?
2. What mechanisms used to ensure that identified constraints are addressed?

Appendix 2. Overview of nutrition status in Rwanda

1. Background

The Government of Rwanda recognizes that the problem of malnutrition is a multi-sectoral challenge that requires all concerned sectors to work together in synergy; and it recognizes the importance of nutrition in achieving national economic and social development goals through access to an age-appropriate balanced diet and living in a favorable healthy environment.

To this effect, the Government, in partnership with development partners, embarked since April 2009, on a historic effort to improve the nutrition of its young children with the initiation of the Emergency Plan to Eliminate Malnutrition (EPEM), that later became known as Presidential Initiative to Eliminate Malnutrition (PIEM), since it all started with the presidential call. This demonstrated a new level of unprecedented commitment to national and decentralized action. The immediate result was a national screening exercise that involved more than 30,000 Community Health Workers (CHWs), all district authorities and health facilities, and development partners. Over 1.1 million of the 1.3 million children under the age of five years in the country were screened for acute malnutrition using Mid-Upper Arm Circumference (MUAC). Some 65,000 children were identified with acute malnutrition (20,000 severe) and provided with appropriate treatment.

Towards the end of the first phase of the PIEM, the First National Nutrition Summit was organized (November 2009). This summit was a strategic step that provided evidence and lessons learned for the Government to move further forward towards the elimination of malnutrition in Rwanda. The summit also ushered the second phase of the PIEM that aimed at consolidating the work on managing acute malnutrition and moving towards the implementation of preventive strategies at the decentralized level.

In 2010, the government developed a National multi-sectoral Strategic Plan to Eliminate Malnutrition (NMSEM 2010-2013) to guide the implementation of the various interventions. The Ministry of Health was tasked to coordinate, under the auspices of the Prime Minister's Office, implementation of interventions by various sectors including Agriculture, Education, Infrastructure (responsible for WASH), Local Government and Commerce as well as Gender & Family, Finance, Information and others.

One of the key objectives (also endorsed by the Second National Nutrition Summit in November 2011) of the national strategic plan was to decentralize the implementation responsibilities to the district level through formulation of 'District Plans to Eliminate Malnutrition' (DPEMs) by each individual district. Since then, all districts now implement and report on nutrition activities in their regularly updated DPEMs.

During the 2011 December National Dialogue, malnutrition was highlighted as a major concern. In response to that, Government Social Cluster ministries developed the annual *Joint Action Plan to Eliminate Malnutrition* (JAPEM) underpinning efforts to strengthen the fight against malnutrition but also consolidating gains while scaling up "limited feasible" interventions at a time as key to sustainable development. To this effect, under the auspices of the Prime Minister, the Ministry of Local Government is now mandated to provide leadership and, in collaboration with other social cluster ministries, accelerate implementation through several sectors including health, agriculture, education, gender, social protection and family promotion at decentralized structures.

In 2013, the Government reviewed its nutrition policy and strategic plan, and the National Food and Nutrition Policy (NFNP 2013) and the National Food and Nutrition Strategic Plan (NFNSP 2013-2018) were developed. One of the key objectives of the NFNP (2013) and NFNSP (2013-2018) is address the most serious remaining problems regarding nutrition. These include, as the highest priority, the persistently high level of chronic malnutrition or stunting among children under 2 years, focusing on the child's first 1000 days window of opportunity from conception until the child is 2 years old. Both the NFNP (2013) and NFNSP (2013-2018) were officially launched during the 3rd National Food and Nutrition summit that took place in February 2014.

2. Situation analysis

Malnutrition is still widespread especially among children under 5 years. According to the 2015 Rwanda Demographic and Health Survey (RDHS), chronic malnutrition (stunting) affects 38% of children under 5 years, constraining good health and affecting mental and developmental growth. Underweight (low weight for age) affects 9% children under 5 years, and wasting (acute malnutrition or low weight for height) which is associated with a high death rate, affects 2.2% of these children. Compared to the 2005 and 2010 DHS, stunting was 51% and 44%, underweight was 18% and 11%, and wasting was 5% and 2.8% respectively. Despite the remarkable improvements in children's nutritional status, stunting is still alarmingly high as it is above the World Health Organization (WHO) high severity threshold levels (figure a), and only wasting seems to be on track to meet the 2018 HSSP III targets (figure b).

Fighting against stunting, requires all actors to work together in synergy. The Government is collaborating with development partners to implement the NFNP (2013) and the NFNSP (2013-2018), and fighting against stunting is a priority area.

Figure a: Malnutrition among children under 5 years compared to the WHO severity threshold

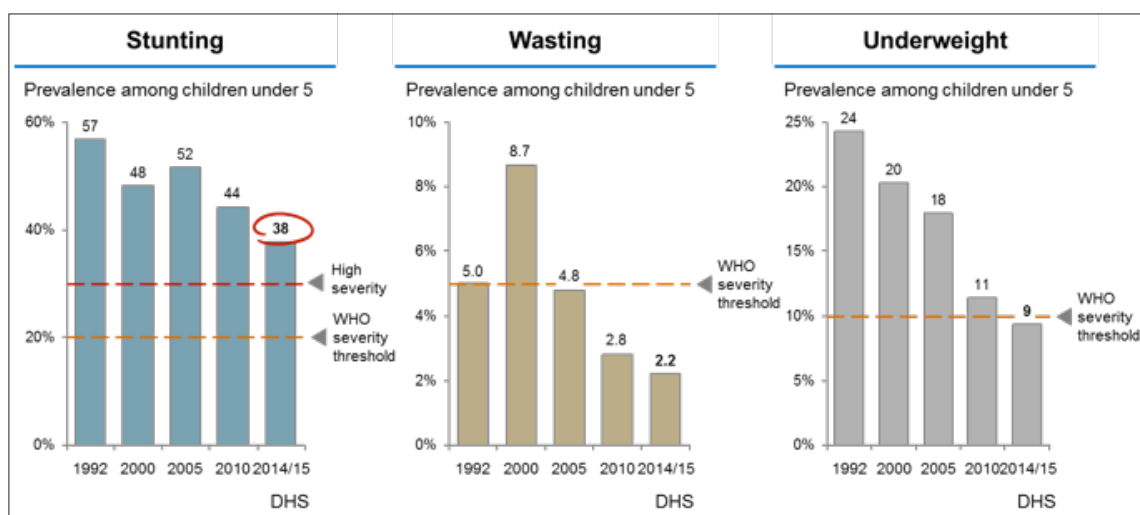
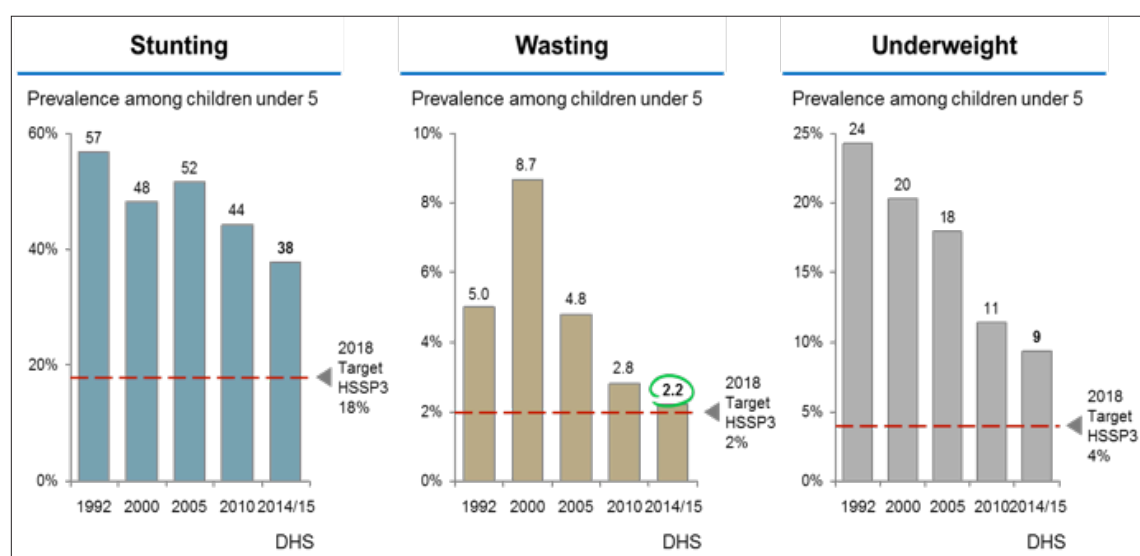


Figure b: Malnutrition among children under 5 years compared to the 2018 HSSP III targets

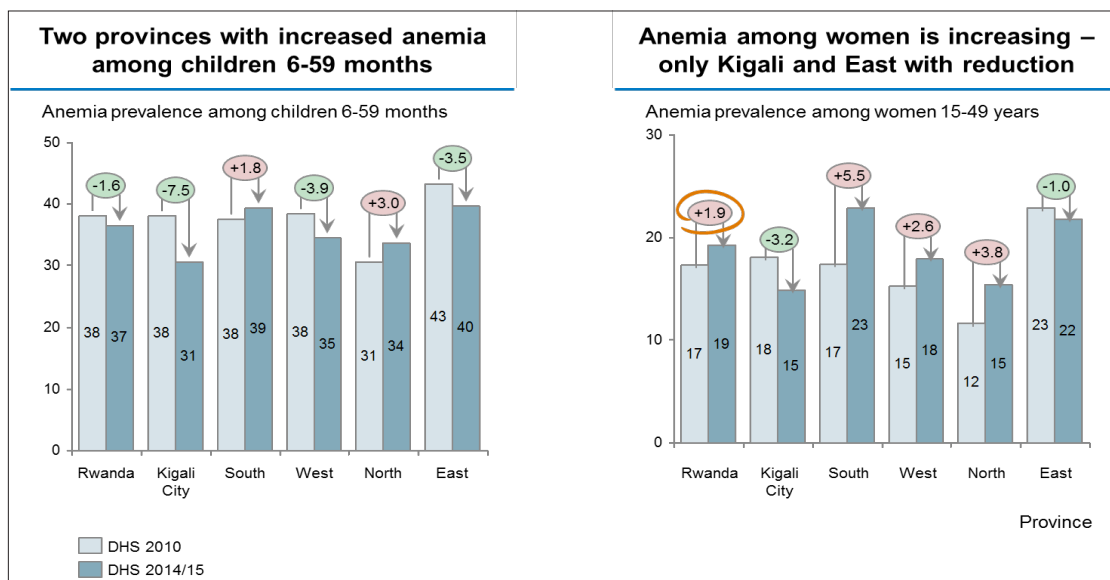


Micronutrient deficiencies are also a public health concern in Rwanda. Anemia levels are high and reduction is slow in children, while it is increasing in women. According to the 2015 DHS, anemia affects 37% of Rwandan children under 5 years, and 19% of women of reproductive age (15-49 years).

Compared to the 2010 DHS, anemia among children under five was 38% and anemia in women 15-49 years was 17 % (Figure c).

The primary cause of anaemia among young children is insufficient bioavailable dietary iron intake in relation to the high iron needs to support rapid growth and brain development. The Rwandan diet is primarily plant based with plantains, cassava, sweet potatoes and potatoes providing the majority of food energy.

Figure c: Prevalence of anemia among children under 5 years and women of reproductive age

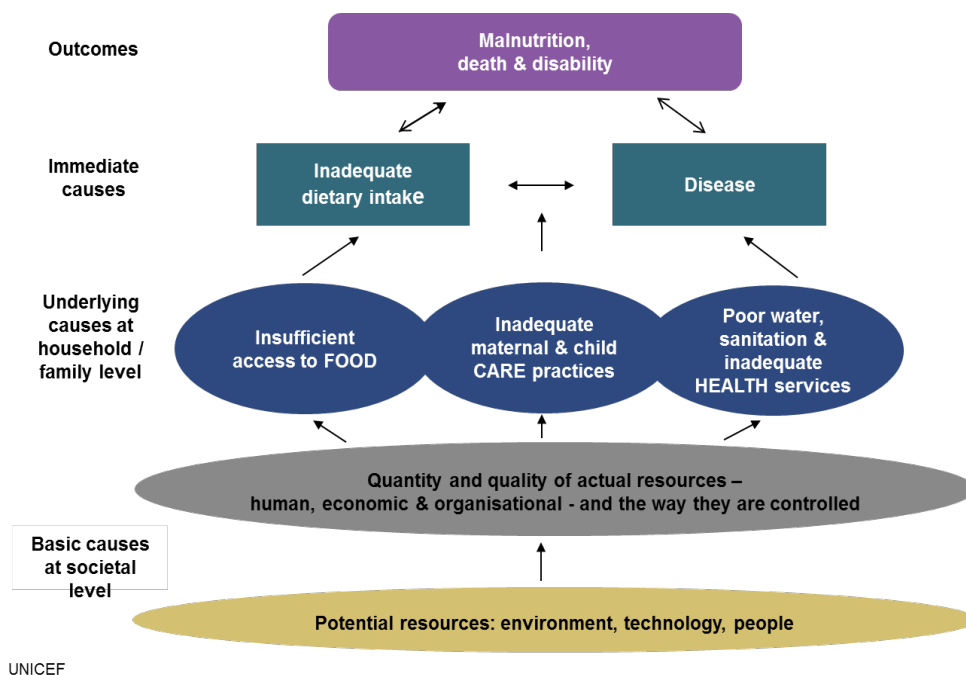


3. Linkages and complementarities between nutrition and food security

Food security and nutrition security are interlinked concepts. According to the conceptual framework of malnutrition (figure d), insufficient access to food (or food insecurity) is one of the underlying causes of malnutrition.

Food security exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Good nutrition or nutrition security also requires having enough of the right foods, but in addition, it requires having access to adequate feeding, caregiving and hygiene practices, as well as access to health, water and sanitation services. Nutrition security thus depends on having access to a healthy diet which provides all nutrients required for a healthy life, and being healthy so that the body can make optimal use of these nutrients for its different functions.

Figure d: Conceptual framework for analyzing the causes of malnutrition



Achieving food and nutrition security is a multi-faceted challenge which requires a multi-sectoral approach. Food systems can play a critical role in protecting both food security and nutrition if careful attention is paid to targeting the poor, reducing inequalities (including gender inequalities), and incorporating nutrition goals and actions where relevant.

4. Status of Obesity and overweight in Rwanda

According to The World Health Organization (WHO), Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. It is defined as a person's weight in kilograms divided by the square of his height in meters (kg/m²). The same organization has also showed that the Raised BMI is a major risk factor for non-communicable diseases such as: cardiovascular diseases (mainly heart disease and stroke), which were the leading cause of death in 2012 worldwide, diabetes, musculoskeletal disorders (especially osteoarthritis – a highly disabling degenerative disease of the joints) and some cancers including endometrial, breast, ovarian, prostate, liver, gallbladder, kidney, and colon.

The World Health Organization (WHO) has estimated that in 2016, more than 1.9 billion adults aged 18 years and older were overweight. Of these over 650 million adults were obese. In addition, in 2016, 39% of adults aged 18 years and over (39% of men and 40% of women) were overweight. Overall, about 13% of the world's adult population (11% of men and 15% of women) were obese in 2016 and the worldwide prevalence of obesity nearly tripled between 1975 and 2016

The WHO has also shown that overweight/obesity is a global concern and in low and middle-income countries, where under-nutrition is endemic, obesity is not usually considered to be a public health priority.

Mukabutera et al. (2016), carried out research looking at overweight or obesity prevalence, trends and risk factors among women in Rwanda using the Rwanda Demographic and Health Survey findings from 2000 to 2010. Findings revealed that the prevalence of being overweight/obese increased between

2000 and 2010, both in urban and rural areas. Nationally, it was 13%, 12% and 16.5% in 2000, 2005 and 2010, respectively and particularly high in urban areas such as Kigali. The study also shown that being overweight or obese was most common in the following groups: those aged 25–34 years; Protestants; those with three or more children; those without a partner and non-breastfeeding. In addition, being overweight/obese tended to increase with increasing wealth. According to *GMO gender profiles (2014)*, some cultural attitudes and perceptions may also contribute to the obesity/overweight among women than men especially because of cultural believes, fatness among women is considered as a sign of beauty among some Rwandan communities who have lived and grown up in some countries such as Tanzania, Uganda and DRC.

Being overweight or obese is associated with an increased risk of various non-communicable diseases in both men and women (Webber et al., 2014), threatening healthcare systems that are already overburdened by communicable diseases in developing countries (Boutayeb, 2006; Mukabutera A. et al. 2016). In women of childbearing age, obesity and a tendency to be overweight are associated with polycystic ovarian syndrome, which can lead to reproductive dysfunction (Moran, Dodd, Nisenblat, & Norman, 2011).

In order to respond to this issue, the WHO has adopted the *Global Strategy on Diet, Physical Activity and Health* which describes the actions needed to support healthy diets and regular physical activity. The Strategy calls upon all stakeholders to take action at global, regional and local levels to improve diets and physical activity patterns at the population level. In addition, the *Political Declaration of the High Level Meeting of the United Nations General Assembly on the Prevention and Control of non-communicable Diseases of September 2011*, recognizes the critical importance of reducing unhealthy diet and physical inactivity. The political declaration commits to advancing the implementation of the *“WHO Global Strategy on Diet, Physical Activity and Health”*, including, where appropriate, through the introduction of policies and actions aimed at promoting healthy diets and increasing physical activity in the entire population

Reducing overweight and obesity requires country and individual commitments and disciplines including knowledge and skills in nutrition and regular physical activities. Policies such as increased taxes on sugar sweetened beverages to reduce country consumption may be applied. In Rwanda, the policy on supporting regular physical activity practice in the workplace has been institutionalized especially for civil servants although not effectively implemented and monitored.

It is also recommended to conduct a research on the influence of traditional attitudes and perception to obesity/overweight among the Rwandan population especially women.

Appendix 3. Overview of the Social Protection in relation to FNS in Rwanda

1. Background

The national social protection policy (Sept. 2005) cites food insecurity and malnutrition as some of the key challenges that affect extremely poor households and vulnerable children. The policy goes further to propose the following strategies to tackle these challenges:

To ensure the protection of households against agricultural risks, the policy proposes the following:

- Reducing the agricultural risks by improving storage capacities, irrigation and through the development of marshlands;
- Initiating and increasing labour intensive public works (HIMO) during the famine period in regions that are the most affected.

To promote health and to face health risks especially to tackle nutrition challenges, the following are proposed:

- Intensifying functional literacy for adults, especially women literacy on nutrition, modern agriculture and other practical techniques serving to meet daily life issues.
- Strengthen and to intensify nutritional programs in a bid to protect households, especially children and the youth.
- To proceed not only with the improvement of nutritional quality but also with the rationalization of their agricultural production.

While the policy has set out these strategies, it is silent on how these strategies should be implemented or how these should be addressed. The other weakness is that the policy developed in 2005 is outdated and should be revised to align it to the EDPRS 3, SDGs and 2050 Vision.

2. Social Protection Strategy (NSPS 2013/14-2018)

According to the NSPS 2013, pg. 14), poverty levels are highest by far among those needful mainly on farm wage labour (77% of those whose primary occupation is farm wage labour are poor) followed by those working in agriculture (52% of those whose primary occupation is agriculture are poor). Poverty is much lower in other categories.

Evidence in Rwanda shows that extremely (rural) people households invest their social transfers in agriculture. For example, recipients of VUP cash transfers invest their transfers in productive assets, including livestock and farms thus contributing to both rural development and poverty reduction.

Social protection directly reduces poverty depth. Social protection plays a key role in stabilizing assets, incomes and capabilities in the poorest households.

VUP Public works also create agricultural assets and other rural infrastructure. The majority of community assets constructed through VUP public works to date support agricultural livelihoods and will continue to do so. Some of the VUP Public Works interventions besides providing employment include anti-erosive ditches, radical terracing and agriculture projects account for the majority of VUP public works projects.

3. Linkage between Social Protection Agriculture and Food and Nutrition Security

“Agriculture and social protection are fundamentally linked in the context of rural livelihoods. Poor

and food-insecure families depend primarily on agriculture for their livelihoods, and make up a large proportion of the beneficiaries of social protection programmes”.

Social Protection and Nutrition: The national social protection strategy (2013, page 14) has a strategic outcome which is aimed at “addressing child poverty and vulnerability in the poorest households”. The strategy recognizes that young children face particular vulnerabilities related to their biological immaturity and that malnutrition in childhood has lifelong impacts on physical and intellectual capacity.

EICV3 shows that there is a particular challenge of ensuring that social protection benefits reach extremely poor especially larger households with children (See section 2.4). 44% of children under 5 are stunted due to chronic malnutrition according to DHS-4 (higher than the Sub-Saharan African average of 38%) and stunting is highest in the Northern Province at over 50% of all children

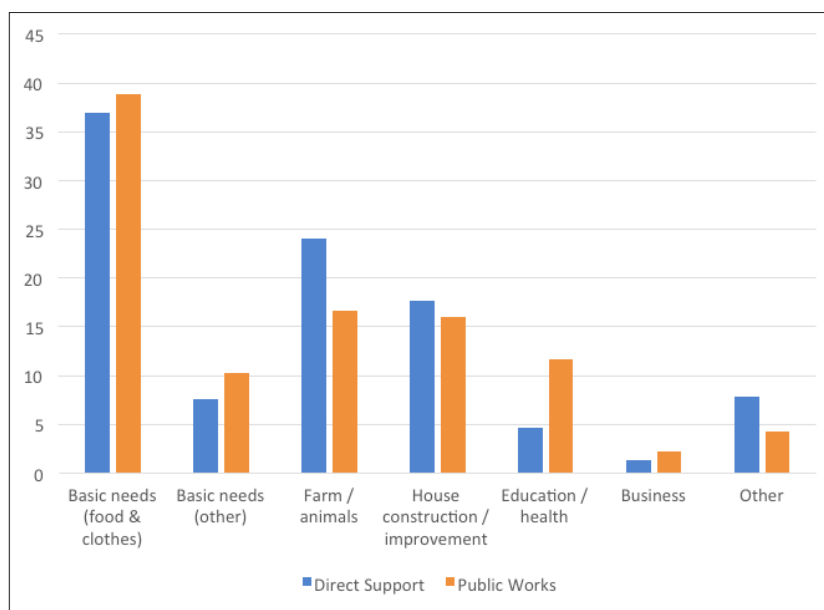
Food security is a major basic need for social protection beneficiaries. Social Protection beneficiaries are predominantly in agricultural activities. Both social protection and agricultural policies target practically the same population. In Rwanda, extreme poor and food insecure families live especially in rural area. According to EICV4, 16.3% of the population of Rwanda live in extreme poverty (in rural area extreme poverty reaches 43.8%). Social protection aim at reducing extreme poverty, vulnerability and risks. Provision of food implies elimination of the critical shock for poor families. Agricultural policies focus on improving productivity, food security, eradicate malnutrition and increase revenues and assets of households.

a) Social Protection contribution to increasing the productivity of Agriculture

Through the VUP Public Works component, the VUP delivers significant **investment in community asset creation and environmental management**. Interventions financed through the VUP include a wide range of soil conservation activities including construction of radical terraces, anti-erosion ditches and reforestation. These investments will contribute to safeguarding Rwanda’s natural resources, thereby guaranteeing the sustainability of Rwanda’s agricultural production.

The social protection needs both to expand social protection coverage of very poor households with children and to ensure that programs are designed and linked with complementary interventions in ways that promote improvements in child welfare, including nutrition.

Impacts of Rwanda’s social protection system: Use of VUP transfers



From the graph above, it is evident that VUP transfers are mostly used to buy basic needs including food and also invest in farm animals which have an indirect contribution to agricultural productivity through manure etc.

- a) VUP public works create agricultural assets and other rural infrastructure.

The majority of community assets constructed through VUP public works to date support agricultural livelihoods and will continue to do so. Construction of feeder roads, anti-erosive ditches, radical terracing and agriculture projects account for the majority of VUP public works projects. The agricultural calendar involves peaks and troughs of employment and the benefits of public works can be further maximized by timing public works to coincide with periods of agricultural under-employment.

- b) The VUP enables poor people to invest in higher-risk, more productive activities.

Through provision of a safety net, poor households know that, even if their business ventures fail, they will still have some minimum income. This encourages and facilitates entrepreneurship and productivity. Indeed, the EICV4 Social Protection thematic report (NISR, 2014) shows that, after meeting basic needs (mainly food and clothing) the recipients of VUP cash transfers invest their transfers in productive assets, including livestock and farms, contributing to both rural development and poverty reduction.

- c) The VUP is protecting rural people's productivity in the face of shocks.

When climatic events or ill-health cause a sudden drop in rural people's income, they sometimes have little choice but to adopt harmful coping strategies, such as withdrawing children from school or reducing family meals. The VUP helps prevent this through the provision of temporary, short-term employment during times of hardship. As a result, people can ensure adequate nutrition for their infants, which is critical for their lifelong physical and intellectual development; and they can keep older children in school, boosting their skills and future productivity.

- d) Social Protection contributes in achieving the Sustainable Development Goals

Increased coverage of social protection is widely acknowledged to be critical to the achievement of the Sustainable Development Goals (SDGs):

- Goal 1. End poverty in all its forms everywhere
- Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

4. Gaps/Challenges

1. Limited coordination between social protection sector and agriculture sector

In line with the social protection sector's commitment to *"building and strengthening linkages with complementary programs"* (NPS, 2013: pg. 19), there is need for multi sectoral coordination and partnerships with key government programs and build the capacity of local governments to coordinate the programme with other programs and services delivered at Sector level. Some of the areas of coordination include for example:

- MINALOC and LODA should establish a partnership with MINAGRI and RAB to ensure a coordinated approach to targeting of agricultural asset transfer schemes and agricultural extension services.
- Social protection sector should provide advice on how to take account of the needs of the extreme poor and vulnerable and how to maximize access and benefits for those groups (e.g. need agricultural input subsidies, skills development, community development or early childhood development)
- There is opportunity for MINALOC and MINAGRI to work together on ensuring beneficiaries on agricultural extension services available to them and on how to access them.

- MINEDUC and MIGEPROF support to Early Childhood Development can complement public works programmes. The setting up of ECD centres/crèches near public works sites would enable the full participation of mothers, without compromising the well-being of small children.
 - MINAGRI's Girinka and other livestock programmes should be further strengthened to maximise pro-poor impacts, including through the distribution of more small livestock to poor households with little land.
2. **Targeting system:** In order to maximize access to public works employment, VUP PW and MINAGRI's PW schemes should harmonize the targeting principles, wages policies and other design features of these projects to respond to the needs of the extremely poor households. This should be executed concurrently with building capacity of local governments and other sector line ministries with a view to promoting the adoption of the community-based approach to labor-intensive public works in other sector programme. Most of the projects implemented in these Potential areas include: feeder road construction and maintenance; terracing; drainage ditch construction; reforestation etc.
 3. **The agricultural calendar** involves peaks and troughs of employment and so the benefits of public works to agricultural laborers can be maximized by timing them to coincide with periods of agricultural under-employment. The technical infrastructure elements of public works programmes must be planned well in advance, so that work is available at the right time to provide work for the poorest households outside peak agricultural season
 4. **Awareness campaign:** VUP has a major education/ awareness-raising component and this will be used to reinforce nutritional knowledge, as well as knowledge of family planning, HIV and AIDS and communicable diseases. **MoH** has an important role in helping VUP effectively deliver these messages.
 5. **Monitoring of pro poor programmes:** There is limited follow-up and advisory services of pro-poor programmes beneficiaries, to ensure the sustainability of programmes beyond the support programmes.
 6. **Exclusion of the poorest** from livelihood enhancement opportunities: The EICV-4 social protection thematic report finds that extremely poor households are somehow under-represented among the beneficiaries of agricultural support programs. The reasons for this are the following:
 - Firstly, extremely poor households are not attractive target for livelihoods programme managers in local governments and NGOs because of their high exposure to risk.
 - On the other hand, awareness of livelihood enhancement opportunities among the poorest households also appears to be lower than the among the general population

5. Opportunities for social protection in addressing food and nutrition security

The VUP program document (2017) attempts to address gaps identified through EICV4 and the Comprehensive Food Security and Vulnerability Analysis (CFSVA 2015) by putting in place interventions that can both address food and nutrition security in the poorest households such as:

VUP's specific out stated as "Increased income and food security among extremely poor households" with specific indicators

- % of DS/PW beneficiaries who are paid timely in their bank account (according to set criteria for timely payment)
- % and # of DS/PW beneficiaries eating three meals a day

Through its planned impact evaluation and graduation monitoring data, the VUP program will be able to assess the extent to which VUP contributes to increased income and food security.

At policy level, the Back ward Looking Joint Sector Review (2016) identified one of the priorities policy actions for 2017/18 as strengthen linkages between ECD, nutrition, agriculture and climate change including building capacities that are required for linkages. This will include supporting the new **food and nutrition coordination secretariat in MINALOC** as well as strengthening coordination with MINAGRI and MIDIMAR on agriculture and climate change

The introduction of minimum package for graduation (2015), has piloted in strong coordination with MINAGRI and RAB specifically on the small livestock component. As such, MINALOC introduced Minimum package for graduation which aims “strengthening a livelihood so that the household or recipient is able to maintain themselves out of extreme poverty for the medium to long term without the support of a core social protection programme”. Among package of which there is *‘training and coaching support, and linkages to complementary advisory services, especially business, agricultural and veterinary services’*.

The program is implemented through LODA and Local Government. It is currently implemented in 30 sectors on a pilot scale, where is presumed that beneficiary households will be benefit from a set of interventions including agricultural inputs (seeds, seedlings, fertilizer etc.) as well as agricultural processing equipment (milling machines etc.).

The introduction of expanded public works in 2016 which has strong focus on the households with caring responsibilities.

Graduation strategy which is cross sectoral and identified the need to focus resources to household which are more vulnerable by provision of seeds and farm inputs such as fertilizers inputs.

LODA milk program targets malnourished children under 2 with acute malnutrition

References

National Social Protection Policy; Republic of Rwanda, (Ministry of Local Government, Good Governance, Community Development and Social Affairs), Sept. 2005, Kigali

Appendix 4. Overview of gender as linked to food and nutrition security in Rwanda

1. Background

Rwandan population is predominantly female constrained by high fertility rate and limited family planning. In Rwanda, the population has regularly increased over time and in 34 years period, it has doubled from 4.8 million in 1978 to 10.5 million in 2012 with women representing 52% of the total population (NISR, 2014). The increase was steady between 1978 and 1991 and between 2002 and 2012 as reflected by the respective average annual growth rates of 3.1% and 2.6%. While the national total fertility rate equals to 4.2 children per a woman, this rate is even higher in the Western Province where the fertility rate stands at 4.6 with Rutsiro and Nyamasheke Districts having the highest countrywide with 5.2 and 5 children per a woman respectively. In addition, family planning among married women aged 15-49 years is still countrywide representing 53%. This leads to more women's care households works, fatigues and limited participation in food security initiatives.

In relation to food and nutrition security as embedded in SDG-2 targets (2.1, 2.3, 2.4, and 2.5), which entails the need to ensure sufficient food, increased productivity, resilient agricultural practices, and improved and diversified genetic seeds, women remain the key players

producing food both for their families and the market. They represent 82% in the agriculture sector compared to 73% of the total population in the sector but mainly in subsistence farming on small land size with limited access to modern agricultural inputs as well as agricultural loans. While this number is very high, it is even much higher in rural areas where women in agriculture represent 92% compared to 77% of men¹⁴.

Box 1: Extract from Rwanda's Land Policy 2004:

“women, married or not, should not be excluded from the process of land access, land acquisition and land control, and female descendants should not be excluded from the process of family land inheritance”.

2. Women's land rights:

In Rwanda, land is the major production factor and ultimate valuable asset for farmers and for food and nutrition security. In order to ensure the security of land tenure among men and women, boys and girls as well as ensuring effective management of land, the National Land Policy was developed in 2004 and implemented by the Organic Land Law, as revised in 2013 determining the use and management of land in Rwanda. Both the Land Policy and the land law guarantee equal rights between men and women in all aspects of acquisition, registration and management of land. The law recognizes that land is a family property and requires consent from all rights holders, including spouses and adult children, before any transaction on the land can be concluded. Article 4 highlights that *“All forms of discrimination, such as that based on sex or origin, in relation to access to land and the enjoyment of real rights shall be prohibited. The right to land for a man and a woman lawfully married shall depend on the matrimonial regime they opted for”.* The land is therefore registered in the name of both husband and wife with equal share (50% each) if they are married in a community of property regime. However, married women continue to experience limited power and control over the use of land due to negative cultural norms and beliefs whereby the husband is considered as the head of household and the primary owner and decision maker on all the household assets, especially land, regardless of whether the couple is legally married or not and regardless of the matrimonial regime they have chosen. As MINAGRI (2014) reports, decisions regarding land typically depends on the husband's needs and priorities even if, in the context of a married couple, the wife and husband are under the matrimonial regime of community of property. IFAD (2015) found that when women have land tenure security, they can grow more and earn more. When women earn more, they usually spend a higher proportion on caring for the family especially on food and other care related matters than do men.

14 NISR, The fourth population and housing census, thematic report on labour force participation, January 2014

Consequently, strengthening women's land rights not only contributes to gender equality but also improves food security and reduces poverty for the whole family. Additionally, women experience resistance to claim their rights to own and control land as men do due to lack of knowledge of the law, lack of legal support, fear of domestic violence and customary practices¹⁵. Further to the above, women are still growing subsistence crops due to social norms and care character of them while men are mostly in cash crops as found out by USAID (2014).

3. Livestock ownership

Gender issues are also noticed in livestock ownership. In Rwanda, 64.5 per cent of the population raise one or more types of livestock with a difference of around 7% of ownership between men and women headed households where their livestock ownership represents 66.2% and 59.5% respectively. Women are much involved in little livestock raising like goats, pigs and chickens which do not require big land size for grazing while men are involved in cattle raising at 53.3% compared to 40.8% for women. This may also be resulted from the fact that cattle have more monetary and cultural values than other types of livestock but also requires more resources such as finance, space of grazing and time to maintain them which many women headed households do not have.

4. Limited women access to improved agricultural inputs

Due to the land scarcity, 0.5ha is the average cultivated land size for female headed household compared to 0.6ha for male headed household (NISR, 2014) leading to over cropping with limited use of improved agricultural inputs such as fertilizers, seeds and technologies, therefore limited productivity as one of the components of food and nutrition security. Access to and use of agricultural inputs (improved seeds, organic and inorganic fertilizers) is still limited among Rwandan farmers with pronounced gender disparities in their access and usage as indicated in the National Agriculture Survey (2013). In fact, female farmers accessing inorganic fertilizers represent 15% compared to 20% males while for organic fertilizers, women having access account for 45% compared to 75% for male. In relation to access to improved seeds, only 8% women farmers have access compared to 18% of male farmers.

The National Fertilizer Policy (2014) indicates that women have a lesser role in decision making and are disadvantaged in benefiting from opportunities that arise from the fertilizer sub-sector in terms of access to, use of fertilizers and fertilizer trade as compared to their male counterparts. MINAGRI (2014) has also found that women continue to have limited access to and control of improved seeds due to limited land size (minimum land size required is 0.5ha) that prevents them from being eligible to the Fertilizers' Subsidy Programme. This, combined with power relations within households which is not in favour of women does not help women to influence decisions on what to do with the collected inputs. Consequently, women's farms remain less productive resulting in the production for family subsistence and thus women remain poor and economically dependent. This has also been proven by FAO (2013) which found that women's farm plots are usually less productive due to poor soil quality, lack of organic or chemical fertilizers, and lack of adequate farming tools, which also make women farmers more vulnerable to climate change and land degradation.

The fertilizer policy (2014) highlights that "Policies and programs in the fertilizer sub-sector shall be designed to ensure that women have a fair chance to benefit from opportunities in fertilizer extension, trade, and use"¹⁶. However, fertilizers are applied mostly to selected crops mainly cash crops such as maize, Irish potato, wheat, rice, coffee and tea¹⁷ that are generally grown by men and the government subsidizes the fertilizer for such crops. This policy has however stressed the limited opportunities of women in terms of access to and use of fertilizers as well as fertilizer trade. It provides therefore a framework for mainstreaming gender in the fertilizers distribution and trade systems across the country and would ensure that the enjoyment of benefits and opportunities arising from its enforcement are equal between men and

15 Abbot P. and Mulumba D., *The Promise and the Reality: Women's Rights in Rwanda*, Working Paper No. 5. Oxford Human Rights Hub, January 2015

16 MINAGRI, *National fertilizer policy*, June 2014, page 15

17 Science Publishing Group, *Effect of climate change on crop production in Rwanda*, Kigali, June 2015

women, boys and girls. There is thus a need to continue monitoring its implementation and enforcement to ensure consistency and that desired results are effectively achieved.

Limited decision making among women on agriculture produce:

Rwanda is a patriarchal society and men are the main decision makers and traditional heads of households although the new family law has changed that absolute power. They are seen as breadwinners and decision makers of households' income and properties. The table below shows that despite the high representation of women in the agriculture sector, when it comes to selling produce and getting income, men come first. This difference may be due to power relations within the households, as well as women's relative time poverty due to their caring roles at the household and community levels, which limit their mobility and engagement outside of their homes. Other reasons may include rural women's limited education which may limit their bargaining power and counting skills. Consequently, women's exposure to economic opportunities remains limited, which inhibits their economic potential, creates economic dependence on men, and increases women's vulnerability in relation to food and nutrition security.

Percentage of people responsible for selling of small and large scale crops by sex (Adult population aged 16 and above)

	Male (%)	Female (%)	Total (%)
Small-scale crops			
Not primary person responsible for crop selling	52.1	74.6	64.3
Yes, sells regularly	12.4	6.0	8.9
Yes, sells occasionally	22.5	11.2	16.3
Never sells	13.0	8.2	10.4
Large-scale crops			
Not primary person responsible for crops selling	52.9	75.9	65.4
Yes, sells regularly & occasionally	30.9	14.8	22.2
Never sells	16.1	9.3	12.4

Source: GMO, Gender and Agriculture, June 2015

5. Women's limited access to agricultural credit

Gender disparities also still persists in access to agricultural credits due to women's poverty. In fact, while men are likely to borrow for investment which in most of the cases gives return on investment, women tend to borrow for consumption such as paying medical treatment, ceremonial purposes or purchase of household items which may to some extent be challenging when it comes to loan.

Reasons for borrowing according to head of households disaggregated by sex

Reason	Male HH	Female HH	Total
Agricultural equipment	15.1%	11.8%	14.4%
Agricultural inputs	2.8%	1.6%	2.5%
Business expansion	23.9%	14.8%	21.8%
Home improvement	12.3%	8.2%	11.3%
Education	6.9%	10.9%	7.8%
Medical treatment	11.1%	11.7%	11.2%
Ceremonial	4.2%	4.5%	4.3%
Purchase of household items	41.7%	34.6%	36.2%
Livestock purchase	4.1%	2.9%	3.8%
Other reasons	20.4%	21%	20.6%

Source: NISR, EICV 4 Main indicator report (2013/2014), August 2015

As stressed by MINECOFIN (2013), women continue to rely on informal financing mechanisms such as Village based Savings and Loan Associations (VSLA) where they are represented at around 70%.

6. National Policy and Programmatic Response of government and Partners

6.1. Policies, strategies and plans

Rwanda is a country built on the principles of Unity, good governance, human rights and gender equality and the empowerment of women as well as non-discrimination in all its forms. It is a signatory of many regional and international conventions and treaties related to gender equality and the empowerment of women which among other things promote the rights to equal access to opportunities and benefits including access to productive assets and inputs, such as land, investment capital, equipment and technology, equal access to finance including credits, markets, equal treatment and benefits from agrarian reforms, food and nutrition as well as good health. These include among others the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW, 1979), Beijing Platform for Action (1995), Solemn Declaration on Gender Equality in Africa (AU, 2004), Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa (2003), The Agenda 2063: The Africa we want (2015), Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods (2015) as well as the Sustainable Development Goals (SDGs, 2015).

At Country level, gender equality and the empowerment of women are no longer debatable rather it has become everybody's business as emphasized by H.E Paul Kagame, the President of the Republic of Rwanda who is also the Global Impact Champion on HeForShe Campaign:

"Gender equality is not just women's business. It is everybody's business. Gender equality and women's empowerment are critical to sustainable socio-economic development". The 2003 constitution of the Republic of Rwanda as amended in 2015, in its chapter III, article 10 emphasizes on the principles of eradication of discrimination, equality of all Rwandans and between men and women. In its chapter IV, Article 21, the Constitution underlines the right to good health by all Rwandans. Therefore, any kind of malnutrition for men, women, children (boys and girls) compromises this constitutional rights. While food and nutrition security are multi-sectoral and crosscutting in themselves, gender equality and the empowerment of women are considered as key crosscutting issue in the various government long and midterm programmatic policy frameworks such as Vision 2020, government seven years Programme, EDPRS 2, sector strategies related to food security and nutrition such as PSTA 3, Health sector strategic plan, Water and sanitation policy and related strategic plans, National Food and Nutrition Policy (2014) as well as District development plans where service delivery is taking place. Although gender is considered as a key crosscutting issue, it is not backed by a gender situation analysis to identify key gaps and define concrete actions that food and nutrition security should be focusing on. It leaves the reader/implementers to think of what they should do and do what they think is right. There is therefore need of clear policy/strategy orientation on gender and food and nutrition security.

6. Gaps in the Food and Nutrition Response

Policies, strategies and programmes on food security and nutrition are not informed by a gender situation analysis which varies from one crop to another, one region to another with some household power relations and dynamics between men and women

which influence decision making on crop planting, production selling and/or eating

- ✓ Gender equality concept is not well understood and most of the time it is associated to only women without any facts to back it
- ✓ Gender is mentioned as a cross-cutting issue to be considered in policies, strategies and programmes related to food security and nutrition, but with limited orientation on what to focus on. It remains to the implementer to define what can be done to ensure that gender equality and women's empowerment are considered in their programmes

- ✓ Studies show that Rwandan boys are more stunted than girls. There is need to understand the underlying causes and effectively address them
- ✓ Cultural mindset and behavior towards food and nutrition which are more women's affairs with limited men engagement in all food and nutrition aspects unless it is attributed cash earning.
- ✓ Gender dynamics at household level especially culture and mindset, limited decision making power among women in relation to cash crops combined with their limited resources especially land and revenues as well as limited knowledge and skills of the service providers, community and households in nutrition are key factors contributing to food insecurity at household level and stunting among children.
- ✓ Lack of sex-disaggregated data and indicators to monitor gender equality progress

Appendix 5. Stakeholders/actors for food and nutrition security in Rwanda

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
Government Institutions			
Ministry of Agriculture and Animal Resources (MINAGRI) ⁴	Strategic Plan for the Transformation of Agriculture (PTSA-III)	<ul style="list-style-type: none"> - Crop intensification program (CIP) - One cow per poor family program - Kitchen garden program - One cup of milk per child (school milk feeding) - Small stock keeping - Crop bio-fortification (beans, OFSP, etc.) - Food security information system - National strategic food reserve - Aquaculture and fish farming program - Crop and Livestock insurance, innovative financing including the Weather Index Insurance, and the Extreme Climate Facility (ECF) of the African Risk Capacity 	<ul style="list-style-type: none"> -PTSA-III has a specific sub-program on nutrition and household vulnerability -Other FS&N related strategies include: Nutrition Action Plan, Fertilizer Strategy, National Agricultural Extension Strategy, National Dairy Strategy, Rwanda Poultry Strategy, Small Animal Industry Strategy, National Horticulture Development Strategy, Agriculture Gender Strategy -Ongoing discussions with the African Risk Capacity could expand crop insurance to the most vulnerable families in drought prone area and build a resilient society through home grown solutions.
Ministry of Health (MoH) ⁵	Health Sector Strategic Plan (HSSP-III)	<ul style="list-style-type: none"> - Home based food fortification - Dietary diversity - Hygiene promotion - Deworming campaigns - Vitamin A supplementation in U5 children - Vitamin A supplementation / post-natal care - Iron Folate supplementation ANC -Supplementary feeding to pregnant and nursing women - Good IYCF practices - Behavior change communication. 	<ul style="list-style-type: none"> -The HSSP-III has a specific priority program on Maternal and Child Health, including nutrition -Other FS&N related strategies include: National Food and Nutrition Policy and Strategy (2013-2018) and related Nutrition Action Plan (2013/2018) and Community Health Strategic Plan - As far as FS&N is concerned, the health sector intervenes in 3 major areas: Community Maternal, Infant and Young Child Nutrition, Supplementary Feeding and Mindset Changes

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
Ministry of Local Government (MINALOC) ⁶	<p>1) Social Protection Strategic Plan for Rwanda (SPSP)</p> <p>2) Multi-Sectoral Strategy to Eliminate Malnutrition: JAPEM 2016-2020</p> <p>3) National Food and Nutrition Coordination Secretariat (NFNCS)</p>	<ul style="list-style-type: none"> - Direct financial support to poor and vulnerable HH under VUP program -Labour intensive public works for poor households able to work -<i>Ubudehe</i> Program (social classes categorization and monitoring of social graduation) -Nutrition awareness campaigns (Radio and TV programs) -Five key programmes under JAPEM are: (i) to reduce all form of malnutrition, (ii) to improve household's food and nutrition security, (iii) to ensure socio protection for food and nutrition insecure households, (iv) to improve nutrition, WASH in schools, (v) to improve knowledge, attitudes and practices on optimal nutrition across the lifecycle. 	<ul style="list-style-type: none"> -There is a State Minister within MINALOC in Charge of Social Affairs -<i>Ubudehe</i> is one of Rwanda's best known Home Grown Solution because of its participatory development approach to poverty reduction. Most of social protection programs target first the lower social classes -The JAPEM is a joint program for all Sectors. It was submitted to PMO and has a strong commitment from DPs including the support of the new Food and Nutrition Security Secretariat within MINALOC. -The institutional framework for JAPEM implementation has 9 Ministries and the affiliated agencies. -The reporting mechanism from Village level to the PMO is in place but difficult to meet due to its tight deadline
Ministry of Finance and Economic Planning (MINECOFIN) ⁷	Finance Sector Strategic Plan (FSSP) & Public Finance Management (PFM)	—	MINECOFIN co-chairs the FS&N Inter-Ministerial Coordination Committee under existing arrangement and intervenes mostly in aspects related to budget planning and allocation
Ministry of Education (MINEDUC) ⁸	Education Sector Strategic Plan (ESSP)	<ul style="list-style-type: none"> - School feeding - School gardens - Hygiene promotion within schools 	In the Education Sector Strategic Plan, school health and nutrition appear as a cross-cutting issues
Ministry of Gender and Family Promotion (MIGEPROF)	National strategic Plan for Family Promotion (NSPFP)	<ul style="list-style-type: none"> - Behavior change communication - Umugoroba <i>w'ababyeyi</i> (Parents Evening Social Discussion) - Kitchen garden 	-Umugoroba <i>w'ababyeyi</i> is a new home grown platform initiative where parents come together to share ideas mainly on gender based violence, social & economic issues. Knowledge on fighting malnutrition among children, pregnant and lactating mothers is among key issues discussed in this platform. Umugoroba <i>w'ababyeyi</i> has been initiated in all villages across the country.

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
Ministry of Infrastructure (MININFRA) ⁹	Water and Sanitation Sector Strategic Plan (WSSSP)	<ul style="list-style-type: none"> - Rural and urban water supply programs -School water supply program -Hygiene promotion through appropriate management of solid and liquid wastes 	-There is a State Ministry in Charge of water and Energy within the Ministry of Infrastructure. WASAC (Water and Sanitation Corporation) is the institution in charge of Sanitation aspects within MININFRA.
Ministry of Disaster Management and Refugees (MIDIMAR)	Rwanda National Disaster Risk Management Plan	<ul style="list-style-type: none"> -Food assistance to disaster affected families and Refugees -Weather Index Insurance 	-African Risk Capacity Program (ARC) has initiated with MINAGRI and MIDIMAR to respond to natural risk. ARC mission is to use modern finance mechanisms such as risk pooling and risk transfer to create pan-African climate response systems that enable African countries to meet the needs of people harmed by natural disasters. The objective is to reduce the risk of loss and damage caused by extreme weather events and natural disasters affecting Africa's populations by providing targeted responses to disasters in a more timely, cost-effective, objective and transparent manner.
Local Government Administration	District Development Plans	The National Decentralization Policy and its Implementation Program (DIP) provide on the overarching framework for the implementation of sector programs at local level, including agricultural programs	Districts are local decentralized entities responsible of implementing sector policies and reporting directly through MINALOC. They play a major role in all the sector-based FS&N interventions highlighted above.
Capacity Development and Employment Services Board (CESB)	Strategic Capacity Building Initiative (SCBI)	Food Security Capacity Building program	CESB a government agency mandated to strengthening capacity in key strategic sectors in Rwanda, including Agriculture and Food Security.

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
UN Agencies¹⁰			
World Food Programme (WFP)	Rwanda Common Country Programme (2013-2018) Protracted Relief & Refugee Operation (PRRO) (2015-2017)	<ul style="list-style-type: none"> 1.1 Comprehensive Food security and Vulnerability Analysis and nutrition surveys 1.2 Disaster Risk Reduction and Management 1.3 Enhancing Market Access for Small-holder Farmers 1.4 Home Grown School Feeding 1.5 Building Resiliency Through Community-Driven Asset Creation and Rehabilitation 1.6 Targeted Preventative Feeding to Combat Stunting 1.7 Nutrition Programming within Integrated Early Childhood Development Services 1.8. Food and nutrition assistance to refugees and returnees 	The WFP also supports most of Government programs in the area of Maternal, Infant and Young Child Nutrition (MIYCN), School Nutrition and Supplementary Feeding
World Health Organization (WHO)	Country Cooperation Strategy for Rwanda	-Guidance and advocacy on population dietary goals and evidence informed policies and programmes, monitoring and surveillance, etc.	WHO intervenes mainly to support Government's MIYCN, Hygiene promotion and behavior change communication related programs
United Nations Children's Fund (UNICEF)	Common Country Programme for Rwanda	-Infant and Young Child Feeding, micro-nutrient fortification, nutrition security in emergencies -Nutrition and HIV/AIDS, Wash, Early childhood Education, social protection	UNICEF intervenes mainly to support Government's MIYCN, hygiene promotion, household food security and mindset change related programs

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
Food and Agriculture Organization (FAO)	Country program Framework (CPF 2013-2018).	<ul style="list-style-type: none"> -Increasing agricultural productivity, markets, consumption of nutritious and safe foods -Commercial aquaculture -Sustainable food for agriculture -Articulation of agriculture and social protection -Poultry development for youth employment and improved livelihood -No-food forest products: mushroom and honey production -Reducing food losses, etc. -Food balance sheet and Integrated Phase Classification, in collaboration with WFP & NISR -Gender and diary value chain -FIRST initiative (Food and Nutrition Security Impact, Resilience, Sustainability and Transformation), new global program to provide policy support to countries 	<p>-Most of FAO interventions are in support to Government's household food and nutrition security related programs</p> <p>-CPF has 4 priority areas under which all programs and interventions are aligned: (i) improvement of food and nutrition security among Rwandans, (ii) increasing productivity through use of natural resources management and climatic adaptation, (iii) agriculture commercialization and private sector development, (iv) enhancing institutional collaboration and knowledge sharing.</p>
International Fund for Agriculture Development (IFAD)	Country strategic opportunities program (COSOP 2013-2018)	<ul style="list-style-type: none"> -Support to the Crop Intensification Program for Food and Nutrition security under SO3 on Climate change, Environment and gender action learning (GALS) mainstreaming. -PASP program (post-harvest and agribusiness support project) 	IFAD supports the Government of Rwanda through MINAGRI. A wide range of ongoing and planned interventions including marshland development for food crop production, support to One Cow program, increase available food by reducing post-harvest losses and income support through Export value added crop commodities.

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
Other Bilateral and Multilateral Development Partners			
World Bank (WB)	–	Rural sector development through marshlands rehabilitation and development and hillside development through land-husbandry programs	The WB supports the agriculture sector in many initiatives to tackle issues of food insecurity and rural communities' livelihoods income through sustainable land development and crop production.
African Development Bank (AfDB)	–	Rural sector development through: (i) marshlands development programs, (ii) livestock infrastructure development, (iii) support to one cow per poor family, and (iv) intensification of fish production and fisheries	The AfDB support the agriculture sector in areas of land development for crop intensification, livestock intensification and fish farming and fisheries
USAID	–	Integrated Nutrition, Water, Sanitation and Hygiene Activity (INWA) Program in 8 Districts of Rwanda.	USAID intervenes mainly to support Government's priority programs in MIYCN, Hygiene promotion and household food security. INWA Program started in 2016 and is implemented through SNV and Catholic Relief Services (CRS). The role of CRS is the core nutrition activities, whereas SNV is responsible for the WASH activities linked to nutrition in the Program.
EKN	–	–	The Embassy of the Kingdom of Netherlands provides support to programs that contribute to food and nutrition security in Rwanda
SCD	–	–	The Swedish Development Cooperation intervenes in areas of capacity building for FNS programs, among other domains.
Civil Society Organizations: NGOs¹			
International and National NGOs	–	–	-International NGOs such as CRS, CARITAS, CARE, CHAI, PIH, SFH, SCR, GHI, GAIN, Heifer International, SNV, etc. are active in Rwanda in the area of food and nutrition security - There are also local NGOs that operate in the area of FNS but with limited coverage and scope

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
Universities and specialized national research institutions			
University of Rwanda: College of Agriculture, Animal Production and Veterinary Medicine (CAVM) & College of Medicine and Health Studies			-Agriculture, Health, Food and Nutrition Security education, research and technology transfer, outreach and community development, etc.
Rwanda Agriculture Board (RAB), through its research programs on: post-harvest and nutrition, plant breeding, horticulture, fish and fisheries, animal genetic improvement, small stocks and poultry, cereals, root and tuber crops, legume and oil crops, etc.			Agriculture, Food and Nutrition Security research and technology transfer
Rwanda Biomedical Centre (RBC)			Public health and nutrition research and technology transfer
National Industrial Research Development Agency (NIRDA)			Industrial research in food processing and technology
Private Universities and Institutes, Technical Colleges, IPRCs, etc.			Agriculture, Food and Nutrition Security education and research
National Institute of Statistics of Rwanda (NISR)			National surveys and data collection in all sectors pertaining to food and nutrition security (e.g. Agriculture, health, social protection, ...)
Independent Research Organizations			
International research and technology transfer organizations (e.g. CGIAR Centers- CIP, CYMIT, CIAT, IITA, AfricaRice, etc.; AGRA, Harvest Plus, BMGF, Rockefeller Foundation, Clinton Development Initiative, International Food Policy Research Institute (IFPRI), etc.)			<p>-These research & philanthropic organizations support development and dissemination of bio-fortified crops (e.g. Orange Flesh Sweet Potato, Iron-rich Beans, Orange Maze, etc.).</p> <p>-They also support programs such as: plant breeding, seed sector development, fertility management and fertilizers, food technology, etc.</p> <p>On the policy side, IFPRI is particularly key in providing research-based policy solutions to sustainably reduce poverty as well as end hunger and malnutrition in developing countries.</p>

Entity	Strategies ²⁸	Key programs/plans relevant to FS&N	Observations
Private Sector Operators			
Rwanda Private Sector Development Strategy (RPSDS) developed by the Ministry of Trade, Industry and EAC Affairs (MINEACOM)	<ul style="list-style-type: none"> - Commodity chains development -African Improved Food (AIF) has started production of high quality food for children under 2 years at the end of 2016 in the special economic zone (SEZ). 	<ul style="list-style-type: none"> - In the RPSDS, there is a priority program that focus on Entrepreneurship Development, with a focus on Commodity Chains Development based on CIP achievements - Private operators involved in FS&N aspects include large and SMEs agri-processors (e.g. Inyange Industries Ltd, AZAM Industries, Sina Gerard Enterprises, MINIMEX, DUHAMIC ADRI, SHEMA Fruits, etc.), food produces traders, agri-inputs producers (e.g. Seed companies, fertilizer distributors, etc). 	
Farmers Organizations			
Farmers' Unions and Cooperatives along commodity and food value chains (producers, traders, inputs dealers, farmer-based collection centers for various commodities, community-level agro-processors, farmer field school facilitators, village-level farmer promoters, etc.).		<ul style="list-style-type: none"> -These CBOs play an important role ensuring food security in nutrition in Rwanda since agriculture is still the main source of livelihood for more than 70 % of Rwandan households. -A list of 51 CBOs are registered in RGB covering all districts in the country 	

Appendix 6. Key Sectors Relevant to Food and Nutrition Security in Rwanda

Sector	Policy/strategy	Policy/ Strategy Goal (s)	Key outcome indicators and target for Food and Nutrition Security	Reference Indicator (s)
Finance and Economic Planning Sector	Vision 2020 (2000–2020)	Transformation of Rwanda into middle – income Country, including poverty reduction from 44.9% in 2011 to 20% in 2020	- Agricultural production kcal/day/person from 1,612 to 2,600 from the year 2000 to 2020 - Poor food consumption score from 4% to 0% and borderline from 17% to 5% by 2020	Indicators no 15 and 16 of the Vision 2020
	Economic Development and Poverty Reduction Strategy (EDPRS II) (2013–2018)	Accelerating progress to middle income status, including accelerating poverty reduction to less than 30% of the population	Increased graduation from extreme poverty from 9.8% to 50% from 2012 to 2018 (% of category 1 or 2 households who move to category 3 poverty level)	-Indicator no 9 of EDPRS-2 under Rural Development thematic area -In EDPRS-2, Food and Nutrition Security is highlighted among the long-term foundational issues that need attention
Agriculture and Animal Resources	Strategic Plan for the Transformation of Agriculture (PSTA-III, 2013–2018)	-To transform Rwandan agriculture from a subsistence sector to a market-oriented, value creating sector -To grow as rapidly as possible, both in relation to production and commercialization, in order to increase rural incomes and reduce poverty	- Number of school children in one cup of milk program from 74,728 to 200,000 -Percent of rural households with functional kitchen gardens from 58 to 80% -Percent of households that reach acceptable food consumption scores from 70 to 90% -Percent of food insecure households that consume bio-fortified foods to reach 50% -Percent of food insecure households from 21 to 14% -Percent of households with poor and borderline FCS during the lean season from 21 to 15% -MT of maize and beans existing as food reserve from 15,909 to 100,909 MT.	Indicators n° 1 to 7 of Sub-Program 1.7 of SPAT-3 on nutrition and household vulnerability

Sector	Policy/strategy	Policy/ Strategy Goal (s)	Key outcome indicators and target for Food and Nutrition Security	Reference Indicator (s)
Health	Health Sector Strategic Plan (HSSP III) (2013–2018)	To ensure universal accessibility (in geographical and financial terms) of quality health services for all Rwandans	<ul style="list-style-type: none"> - Prevalence of stunting among 6-59 month children from 44 to 18% - Prevalence of underweight children under 5 from 11 to 4% - % children < 5 yrs. screened in CBNP from 70 to 88 - % children in nutrition rehabilitation programme / total children malnourished) from 70 to 88% 	Indicators no 1 to 5 of sub-component 1.6 of the HSSP-3 on nutrition services
Social Protection Sector ^{1,2}	Social Protection Sector Strategic Plan (SPSSP, 2013–2018)	Reducing the social and economic vulnerability of poor, vulnerable and marginalized groups	<ul style="list-style-type: none"> - % of children < 5 yrs. In <i>Ubudehe</i> categories 1 and 2 who are stunted from 60 to 48 for category 1 and from 53 to 42 for category 2 in 2016 - % of children aged 6-23 months in bottom two quintiles who are fed in line with minimum standards from 12 to 24 in 2017 	Indicators no 2 and 3 of the Sector Priority Program 3.1.1 on building a sustainable social protection system
Family and Gender Promotion	National Strategic Plan for Family Promotion (NSFPF, 2011–2015)	To ensure the protection of the Rwandan family and support it in order to enable it to efficiently play its role in the process of the national development, including reinforcing family's economic and financial capacity	<ul style="list-style-type: none"> - Number of training modules elaborated on increasing food stuff production quality and conservation (from 43.5 to 48.0 million Frw annual budget allocation) - Number of Community mobilization campaigns organized on best practices of production, trading and consumption of agricultural products (from 6.7 to 7.6 million Frw annual budget allocation) - Percentage of households with a kitchen garden increased (from 75 to 135 million Frw annual budget allocation) 	Indicators no 1, 2 and 4 of the Sector Specific Objective 5.2 on encouraging food self-sufficiency in families

Sector	Policy/strategy	Policy/ Strategy Goal (s)	Key outcome indicators and target for Food and Nutrition Security	Reference Indicator (s)
Education	Education Sector Strategic Plan (ESSP, 2013–2018)	Expanding access to education at all levels, improving the quality of education and training, and strengthening the relevance of education and training to meet labour market demands.	School Feeding and gardening for junior secondary, upper secondary and nursery schools, including provision of milk to primary pupils. Target is given in terms of budget allocation per school per district	This indicator is captured as a cross-cutting issue no 4 on School Health, Prevention of AIDS/HIV and Sport in the ESSP
Infrastructure Sector ¹³	Water and Sanitation Sector Strategic Plan (WSSSP, 2013–2018)	Ensure sustainable and affordable access to safe water supply, sanitation and waste management services for all Rwandans, as a contribution to poverty reduction, public health, economic development and environmental protection	% of households with improved sanitation facilities increased from 75 % (73 for rural HH and 83 for urban HH) to 100% in 2018	Indicators no 1 to 3 sector under specific objective 4 on Raising Household Sanitation Coverage
	Transport Sector Strategic Plan (TSSP, 2013–2018)	To develop an integrated and seamless multimodal transport system for passenger and goods both at national and regional level	% of Districts feed roads in good condition to increase from 0.9 to 31.6	Indicator no 5 of the Sector Priority no 1, outcome 1.1 on improved and sustained quality of road network

Sector	Policy/strategy	Policy/ Strategy Goal (s)	Key outcome indicators and target for Food and Nutrition Security	Reference Indicator (s)
Disaster Management	National Disaster Management Policy (2012) & National Disaster Risk Management Plan (NDMP – 2013)	<p>-To promote linkages between Disaster Management and sustainable development for the reduction of vulnerability to hazards and disasters;</p> <p>-To strengthen the legal and institutional framework for the management of disasters, including the promotion of a culture of disaster awareness and for building the capacity for Disaster Management at all levels</p>	<p>Quantities of food mobilized and distributed to affected households</p> <p>Level of impact of nutrition programmes on affected households</p>	The Policy and Plan recommend more outcome indicators, which are important to attaining the Disaster Management goals.
Private Sector	Rwanda Private Sector Development Strategy (PSDS, 2013–2018)	To achieve accelerated, broad-based and diversified economic growth, including creation of new jobs and increasing the returns from existing jobs	The PSDS highlights the promotion of activities that contribute to linking producers with markets as an important priority action under its program on market access.	Program 7 on market access of the PSDS

Appendix 7. Other Agriculture Subsectors Relevant for Food and Nutrition Security

Sub-sector	Policy/Strategy/Program/Action	Policy objective(s)	Key outcome indicators and targets for Food and Nutrition Security	Observation
Dairy sub-sector	National Dairy Strategy (2013)	Develop a competitive dairy sector that provide quality dairy products which are affordable, available, and accessible to all Rwandans and other consumers in the region	Self-sufficiency in milk production by 2020	This is a subsector strategy of the livestock intensification program (LIP) in Rwanda
Small stock	Strategy and Investment plan for small animals in Rwanda (2012)	Increase small animal production, value addition of small animal by-products and marketing	Small animal industry boosted from a subsistence-based activity to an income-generating activity and export	This is a subsector strategy of the LIP
Fish and fisheries	Fish and fish farming strategy (2011)	Promote an intensive aquaculture and fisheries program that contributes to the food security of the communities and poverty reduction through increased incomes of rural dwellers	Increase domestic fish production from 15,500 MT/year in 2011 to 131,000 MT/year in 2017	This is a subsector strategy of the LIP
Poultry	Poultry industry Development Strategy (2012)	Strengthen and modernize the poultry industry that contributes to the food security and income generation of small-scale producers	Enhance poultry meat and eggs production and marketing	This is a subsector strategy of the LIP
Meat	Strategy and Investment Plan to strengthen meat industry in Rwanda (2012)	Modernize and develop meat industry infrastructure, increase meat supply, and improve access to domestic and foreign markets	Promote domestic consumption of quality meat, and take advantage of business opportunities of meat value markets in the region	This is a sub-sector strategy of the LIP
Horticulture	Horticulture strategy for Rwanda (2006)	Foster development of a competitive horticulture industry and create employment for rural communities	Achieve export revenues of more than US\$9.0 million per year by 2015.	This is a subsector of the National Export Strategy for Rwanda

Multilateral /Bilateral Organizations	WB																						1	0.7	
	AfDB																							3	2.0
	USAID		1																					8	5.3
	EU																							3	2.0
	EKN																								9
Research. Organiz.	Harvest Plus																							1	0.7
	CIAT																							1	0.7
	CIP																							1	0.7
	WRR																							6	4.0
	Care																							5	3.3
	CARITAS																				1			5	3.3
	GCR																							4	2.6
	CRS																					1		7	4.6
	WVI																							5	3.3
	SCR		1																					4	2.6
	PIH																							3	2.0
	SFH									1						1								6	4.0
	GHI																							3	2.0
	SNV				1	1	1	1																4	2.6
	GAIN																								2
CHAI																							1	0.7	
Heifer International																								2	1.3
	Totals	6	7	6	15	4	6	16	16	10	6	4	2	2	2	4	5	1	1	1	13	1	3		
	Weight (%)	4.6	5.3	4.6	11.5	3.1	4.6	12.2	12.2	7.6	4.6	3.1	1.5	1.5	1.5	3.1	3.8	0.8	0.8	0.8	9.9	0.8	2.3		

Appendix 9. Stakeholders' programs, partners, source of funds, beneficiary targeting and delivery channels

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
Government	MIGEPROF	He for she programme -Tumurerere mu muryango programme (TMM) -ECD programme -Women empowerment programme	NCC, NWC, PROFEMMES Twese Hamwe, RWAMREC, UN WOMEN, UNICEF, UNFPA, WB, Rwanda National Police, MoH, MINIJUST	Funding for nutrition-related activities totally depends on partners such as UNICEF,	Families (focusing on the most vulnerable) especially women and children	All families, but focus on most vulnerable through ubudehe targeting	Radio spots (e.g.: Itetero twubake umuryango), household visits, umugoroba w'ababyeyi, Inshuti z'umuryango, and NWC's structures
	MINALOC	Governance and social protection (VUP, coordination of all food and nutrition partners through the NFNCS...)	UNICEF, FAO, WFP, WHO, EU, USAID, Civil Society Alliance, and private companies such SOSOMA and AIF	Government funding and Development partners including UNICEF, WFP, WHO, and FAO	-Extreme poor households (ubudehe cat 1&2) without jobs (Direct support) -Extreme poor households able to work (Public works)	Ubudehe Community targeting, surveys, and statistical data.	Through the local government entities
	LODA	VUP (Direct support, Public works), Milk support programme, and Minimum package for graduation	WB, DFID, UNICEF, FAO	Government and development partners	Extreme poor households (ubudehe cat 1&2)	Studies and surveys, EICV, and Comprehensive food and Vulnerability surveys	Through the local government entities
	MININFRA	WASH-related technologies and infrastructure	JICA, UNICEF, NGOs (Water Aid, world vision and Water for People) and Private sector (Engineering companies)	Government funds, and donors including JICA and UNICEF	Entire population with focus on the household level		Community outreach

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
	MOH	-Community based nutrition programme (CBNP) including growth monitoring and promotion (GMP), nutrition education and BCC, home visits, cooking demonstrations, ... -Management of malnutrition which is basically the treatment of acute malnutrition (both severe and moderate) -Elimination of micronutrient deficiencies	EU, USAID, EKN, WB and the One UN (WHO, UNICEF, FAO, UNFPA, WFP) as well CSOs: National and international NGOs	Government funding, and donors such as EU, WB, EKN, USAID, UNICEF, WFP, WHO...	Entire population with more focus on under five children, pregnant and lactating women	DHS, CFSVA, community targeting	Health care facilities (hospitals, health centres, health posts,..) and community outreach through the community health workers
UN Agencies	FAO	Food Security: Kitchen gardens, small livestock, fish value chain, youth employment	MINAGRI, MINALOC, MINERENA and CSOs such as Urugaga Imbaraga, INADES, IAKIB cooperative	FAO core funds and donor funds (SDC, EKN,EU, Swedish SIDA, Norway government, IFAD,..)	Farmers from categories 1&2 of Ubudehe programme having children of less than 2years , pregnant and lactating women	Local authorities community targeting information	Through field level implementing partners
	UNICEF	Nutrition, Social Protection, WASH, Childhood development and Health, focusing on stunting reduction, pushing for the multi-sectorial approach, and alignment with government priorities	MOH, MINEDUC, MINALOC ,FAO, WHO, UNFPA, WFP and CSOs including Access project, World relief, Caritas Rwanda, Save the Children, ARC, Concern Worldwide, Care International	UNICEF core funds, Dutch Embassy, EU, Suisse Development Cooperation, IKEA Foundation, National committees of UNICEF and Individual	Government of Rwanda, Children under 2 years, pregnant and lactating women	Research, lessons learnt and dialogue with government and partners, DHS, CFSVA...	Through government institutions and CSOs as implementing partners

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
	WFP	Nutrition, Purchase for progress (P4P), Farmer to market alliance (FtMA), School feeding, Seamul Ultimate Zero Hunger programme, refugee operations.	NISR, MINAGRI, MoH, MINALOC, MINEDUC, REB, One UN (FAO, UNICEF, WHO), CSOs and farmer cooperatives	Donor funding such as USAID, SDC, AGRA, IFC...	Natural disasters victims, most vulnerable groups based on Ubudehe categories focusing on children under 2 years, pregnant and lactating women	Most poor and food insecure districts,	Direct implementation and implementing partners
	WHO	Promotion of good Maternal Infant and Young Child Nutrition (MIYCN) practices, Prevention and management of nutrition-related non-communicable diseases (NCDs), and M&E, and operational research	MOH	WHO core funds, One UN funds, donors (SDC, EKN)	Entire population, and in some programmes with more focus on children under 5, pregnant and lactating women	DHS, other national studies such as operational research, and global guidelines	Health facilities (hospitals, health centers, health posts,...), Community Health Workers (community outreach)
Multilateral/bilateral organizations	EKN	Access to safe food for all children, capacity building, Access to market and Integrated water resources management; Value chains development/Pilot project to focus on bananas and horticulture (fruits and vegetables), Support to the coordination of food and nutrition	Government and Other partners including UNICEF, and WB	Netherland Government	Entire population with more focus on children under 2 years, pregnant and lactating women	Data about poverty and stunting levels (DHS, CFSVA,..), as well as potential for soil to grow the crops	Through funded partners
	EU	Sector Budget Support (SBS) Programme, Behaviour Change Communication (BCC) for nutrition programme. Support to the multisectoral nutrition coordination and M&E	Government of Rwanda	EU member states	Government of Rwanda	Government targeting system	Through government budget support

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
	USAID	<ul style="list-style-type: none"> -Integrated nutrition and WASH interventions (Gikuriro by CRS&SNV, Gimbuka by Caritas, Turengere abana by FXB, Ubaka Ejo....by AEE, Nutrition Interventions by Global Communities -Isuku Iwacu by SNV Climate smart agriculture -Nutrition project (Hinga Weze by CNFA) -Nutrition Sensitive agriculture programme in 16 districts(Orange fleshed sweet potatoes by CIP, and High Iron Beans by Harvest Plus) -Tworore Inkoko by Zamura Feeds in Musanze district -Market Place for Nutritious Food products by GAIN 	NGOs working in Food and nutrition security area such as FXB, Caritas, CRS, SNV, CNFA, GAIN...	US government	Children under 5, pregnant and lactating women, and rural farmers	Open bidding process, and research studies	Through funded partners
	WB	Agriculture, Health, nutrition, and Social Protection (Cash transfer programmes, Public works & expanded public works, Caseworkers programmes operating at community levels to help in the graduation process; and Early Childhood Development /ECD)	Government	Member Governments, loans, Financial markets, International Bank for Reconstruction and Development(IBRD), International Development Association (IDA)	Population under Ubudehe cat 1&2, People with Disabilities (PWDs) , Nutrition vulnerable households, pregnant and Breastfeeding women	Global evidences, research on the country; information sharing, and bilateral discussions/ dialogue with the Government.	Through funded partners
Research and academic institutions	CIAT, IITA, CIP, and Harvest-Plus	Agriculture, food and Nutrition security	MOH, MINEDUC, MINALOC/Districts and communities, MINAGRI, and cooperatives in the private sector, NGOs such as World Vision, CRS, Global Communities.	USAID, DFID, IFAD, AfDB	Community health workers (MOH), Schools (MINEDUC), Districts and Communities, Farmers , and cooperatives	Through research, Programme implementations, and discussions with stakeholders including farmers	In collaboration with Government agencies (RAB, Universities, etc.)

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
	UR/CAVM	Teaching students in Food Science and technology including some courses on nutrition	Government (MINEDUC)	Government, USAID, SIDA...	Students	N/A	Teaching
Non-governmental Organizations	Caritas	-Gimbuka and Gikuriro projects (food security, WASH and nutrition)	CRS and CBOs	Internal Caritas funds, and funds from USAID, CRS, Global communities	Pregnant and lactating women, children under five years	Collaboration with government to identify the needy areas	local government, Caritas field implementers
	CHAI	-Technical support to the FBF programme (supply chain management, seconded staff, raw material subsidies...) -Technical support to the implementation of the MoH and MINALOC Shisha Kibondo programme (supply chain management) -Agriculture programme that supports cooperatives on production (Supply chain management)	MINALOC and MOH	Private foundation and New Zealand government,	Pregnant and lactating women, and children within 6-23 months	DHS docs and Ongoing impact assessment	Through the health centers and community health workers
	CRS	- Gikuriro project -Crops for health -Youth employment (Economic reinforcement) -ECD (pilot in Muhanga district) -Family project	Partners : local NGOs such Caritas, DUHAMIC ADRI, EPR, WIF	UNICEF, EKN, USAID, CRS internal funds	Pregnant and lactating women, children under 2 years	Selection is done in collaboration with local government entities	Health care facilities and implementing partners

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
	GAIN	Market place for Nutritious Foods with 2 components : 1. Innovations and grants making (for food processing) Capacity building 2. Learning and networking with other communities (in food handling/ processing)	RSB, small scale farmers	USAID	All local entrepreneurs working in agro-processing sector		Small scale farmers and their implementing partners
	GHI	-Health center based nutrition programmes : Nutrition education on MIYCN, Antenatal care (ANC), hygiene promotion -Promotion of establishment of kitchen gardens (trainings on how to establish them, provision of seeds, nutrition education...),	CHWs, health centers, NGOs (such as Save the Children and NUSPA).	US Government funds, Different foundations in the US, FAO, and WFP.	Pregnant and lactating women with malnourished children.	DHS, CFSVA, EICV, identify the most vulnerable families with malnourished children.	Health centres, and FFLs groups
	Heifer International	Food Security: Livestock-based organization with mission of ending hunger and poverty, and environment protection	MINAGRI, MINALOC, SNV, Send a Cow.	Heifer Foundation, and government through MINAGRI, and Donors : AfDB, DFID	Most vulnerable population according to ubudehe categorization,	Sustainable Livelihood Assessment Survey, Involvement of beneficiaries and government partners, and Participatory self-review and planning done every 3 months by beneficiaries themselves	Direct implementation

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
	Send a cow Rwanda	<ul style="list-style-type: none"> -Livestock development (provision of cows and small livestock) -Sustainable agriculture (establishment of kitchen gardens, improved soil fertility...) -Environment protection (forestry and agroforestry, renewable energy(BIOGAS) and energy saving stoves -Social development (Income generating activities, savings and credits/self-help groups, education on family planning, nutrition, hygiene, sanitation and gender 	Government especially MINAGRI	DFID, Star Bucks Coffee, Jessey overseas, FONERWA	Households from ubudehe category 1&2	Initial identification done by the government, then there is screening and validation	Direct implementation by field staff
	SFH	Health and family planning: Social behavior change programme, Community based nutrition (CBN) programme, and Availing nutritious food on the market	500 community-based organizations	USAID	BCC messages on radio and billboards it the entire population, whereas for other intervention are for target districts chosen on the basis of poverty and malnutrition levels	Internal assessments : Every 2 years, and MAP research; and DHS	Mass media (Radio broadcasts, billboards), mid-media (community events, drama, cine mobile, Umugoroba w'ababyeyi), and community outreach (door to door, one on one.)

Stakeholder category	Stakeholder name	Key programmes	Partners	Source of funds	Beneficiaries	Some references for beneficiaries' targeting	Delivery channels
	SNV	WASH /renewable energy, Agriculture, and Sustainable Nutrition for all	Government and Civil Society Organization (CSOs)	Dutch government, USAID, Mac Donald, IFAD, FAO and NAEB.	Households and Civil Society Organizations (CSOs)	Through application/ bidding process	Through implementing partners

Appendix 10. SDG2- Level of coverage in national policy and development frameworks in Rwanda

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture (No Hunger)		Level of Integration			
SDG2_Targets	Indicators	FR	PR	NR	Corresponding FNS Pillar
2.1. By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.	2.1.1. Prevalence of undernourishment	x			FASP & FU
	2.1.2. Prevalence of population with moderate or severe food insecurity, based on the Food Insecurity Experience Scale (FIES).	x			FASP & FU
2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	2.2.1. Prevalence of stunting (height for age <-2 SD from the median of the WHO Child Growth Standards) among children under five years of age	x			FU
	2.2.2. Prevalence of wasting	x			
2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	2.3.1. Volume of production per labour unit (measured in constant USD), by classes of farming/pastoral/ forestry enterprise size		x		FASP
2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	2.4.1. Percentage of agricultural area under sustainable agricultural practices	x			FS
	2.4.2. Percentage of agricultural households using irrigation systems compared to all agricultural households			x	FS
	2.4.3. Percentage of agricultural households using eco-friendly fertilizers compared to all agricultural households using fertilizers	x			FS

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.	2.5.1 Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities		x		FASP
	2.5.2 Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction.			x	FASP
2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.	2.a.1 The agriculture orientation index for government expenditures			x	FASP & FS
	2.a.2 Total official flows (official development assistance plus other official flows) to the agriculture sector		x		All
2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.	2. b.1. Percent change in Import and Export tariffs on agricultural products		x		FASP
	2. b.2. Agricultural Export Subsidies			X	FASP
2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility	2.c.1 Indicator of food price anomalies	x			FA

Notes: FR: Fully reflected; PR: Partially Reflected, NR: Not Reflected; FASP: Food Availability and Small holder farmers' production, FA: Food Accessibility, FS: Food Stability; FU: Food Utilization

Appendix 11. Road-map for implementation of Strategic Review recommendations

Rf.#	Recommendation	Responsible institution(s)	Timeframe
Enhancing policy framework			
A1	Improve coherence among sector policies and strategies on FNS interventions during the current national planning cycle	PMO & MINECOFIN	2017-2018
A2	Investigate linkages between <i>Ubudehe</i> categories, food security and nutrition to better inform policy interventions	MINALOC & MINAGRI	2017-2018
A3	Explore policy options that allow resource-poor households to effectively access and use subsidized agricultural inputs such as fertilizer, seed, lime and small scale irrigation kits	MINAGRI & MINALOC	Season 2018B
A4	Include women-headed households in the special social protection programs as majority have scarce land and are mostly in very poor categories	MINALOC	2018
A5	Update the existing Social Protection Policy to reflect how social safety-net interventions are linked to FNS outcomes and ensure its alignment with EDPRS-3, Vision 2050 and SDGs.	MINALOC & MINECOFIN	2017-2018
A6	Develop a national policy on climate change that gives direction on how to deal with recurring climate-related shocks	MOE & MINAGRI	2018
A7	Develop a policy on agriculture commodity price regulation and a framework to monitor food price inflation, including coping mechanisms in the event of a price crisis	MINICOM & MINAGRI	2018
A8	Effectively address gender equality and women empowerment in the national policies and strategies based on well informed gender analysis with disaggregated data on gender issues	MIGEPROF & MINECOFIN	2017-2018
A9	Put in place a national strategy to fight obesity and overweight among all categories of the Rwandan population	MoH, DPs	2018-2019
A10	Develop a policy of food fortification in Rwanda (including standards on rational addition of essential vitamins and minerals to food products) to promote access to energy dense/nutrient rich foods by poor and vulnerable households	MoH, MINICOM & DPs	2018-2019
A11	Establish a national strategy on crop bio-fortification and strengthen research programs on bio-fortified crop varieties	MINAGRI	2018-2019
A12	Develop a specific policy on food quality and safety management	MOH & MINAGRI	2018-2019
A13	Currently, food security and malnutrition features in EDPRS-2 as a foundational issue. The GoR should explore the option of requalifying "food and nutrition security" as a standalone cross-cutting sector in order to increase focus in terms of planning and resource allocation	PMO & MINECOFIN	2017-2018

Rf.#	Recommendation	Responsible institution(s)	Timeframe
Improving program design and implementation			
Regarding food security programs			
B1	Continue investments in programs that enhance sustainability of crop productivity for smallholder farmers such as irrigation, land-husbandry, mechanization, agroforestry, integrated soil fertility management practices	MINAGRI, MINECOFIN & DPs	2018 onward
B2	Improve the existing input subsidy scheme through better targeting of program beneficiaries and increase access to quality seeds, fertilizer and lime by poor households	MINAGRI & MINALOC	Season 2018B
B3	Strengthen and expand proximity extension services (i.e. <i>Twigire Muhinzi</i> , Farmer Field School, Community Animal Health Workers, etc.) on efficient use of input packages and good agronomic practices to maximize outputs; including involvement of private service providers	RAB & Districts	Season 2018B
B4	Increase marketing opportunities for agricultural products to increase income for rural farming households, including strengthening skills of extension workers on supply chain management aspects	MINAGRI, MINICOM and DPs	Season 2018A
B5	Promote climate resilient/stress tolerant and nutrient responsive varieties to ensure sustainability	RAB, CG-Centres & Univ.	Continuous
B6	Operationalize the existing crop protection strategy that provides guidance on how to monitor and cope with emerging diseases and pests	RAB & MINAGRI	Season 2018B onward
B7	Scale-up existing programs that promote nutritionally diverse food (e.g. vegetable kitchen gardens, mushroom production, fruits, poultry and fish farming, etc.)	MINALOC, MINAGRI & DPs	Continuous
B8	Expand the range of priority crops under the crop intensification program taking into consideration new crop varieties with high nutrient content and nutritional benefits	MINAGRI	Season 2019A
B9	Promote and support development of post-harvest management, storage and processing technologies at household level	MINALOC and MINAGRI	Continuous
B10	Scale-up the existing government subsidy scheme of small-scale irrigation equipment to allow farmers growing crop during the lean season (season C). This shall be coupled with promotion of short duration crop varieties	MINAGRI & MINECOFIN	Season 2019A
B11	Expand existing initiatives that allow market information access to farmers and to commodity traders	MINAGRI, MINICOM & DPs	2018
B12	Promote entrepreneurship and business oriented mindset among rural households in order to diversify their source of income through non-farm job opportunities	MINALOC & MINICOM	Continuous
B13	Expand investment in market infrastructure improvement (e.g. feeder roads development, cold storage, produce collection centers, market information access, etc.) to stabilize food prices and optimize access to diversified food items all Rwandans	MINAGRI, MINICOM, MININFRA & DPs	Continuous
B14	Promote value addition innovations targeting nutrient-rich foods (e.g. fruits, vegetables, milk, fish, etc.)	MINAGRI & MINICOM	Continuous
B15	Develop innovations in produce marketing that can promote increased market integration of smallholder farmers (e.g. warehouse receipt system, commodity exchanges, etc.)	MINAGRI, MINICOM & DPs	Continuous

Rf.#	Recommendation	Responsible institution(s)	Timeframe
B16	Develop an effective Market Information System (MIS) for Rwanda to help consumers deal with changes in commodity prices along the year	MINICOM & DPs	2018
B17	Increase capacity of the national strategic food reserve to deal with potential sudden food shortage events.	MINAGRI & MINECOFIN	2018
B18	Expand public investment in collection centers for agriculture produces (milk, vegetables, fruits, honey, etc.).	MINAGRI & MINICOM	Continuous
B19	Upscale and disseminate innovations on household post-harvest management (low-cost silos, hermetic bags, etc.) through private service providers and farmers' cooperatives.	MINAGRI, MINICOM & DPs	Continuous
B20	Promote private sector investment in food storage and food market systems (e.g. metallic silos, cold chain and cold transport logistics, etc.) to reduce prices of nutritious food items.	MINICOM & MINAGRI	Continuous
B21	Strengthen a private sector-led inputs system under CIP to avoid delays in procurement, distribution and retail to smallholder farmers.	MINAGRI	Season 2019A
B22	Establish linkages between input markets, agro-processors and output markets.	MINAGRI, MINICOM & DPs	Continuous
B23	Continue supporting initiatives that enhance knowledge of small holder farmers, commodity buyers and other actors on value chain financing aspects.	MINAGRI & MINICOM	Continuous
B24	Review and expand existing crop insurance programs (inputs and yield insurance products), and where applicable build-in crop insurance within the subsidy program.	MINAGRI	2018
B25	Enforce implementation of existing land use master-plans to protect land that is suitable for agriculture across all Districts of the country.	MINILAF & MINALOC	2018
B26	Initiate a turn-around program aiming at optimally using all developed lands (terraced and irrigated fields) currently underutilized.	MINAGRI & MINALOC	2018
B27	Promote alternative livelihood development opportunities (i.e. non-agriculture employment prospects) through close collaboration between relevant government ministries (agriculture, ICT, youth, public service and labor, education/ TVT, etc.) and private sector.	MINICOM, MICT, MIFOTRA & DPs	Continuous
B28	Update the crop regionalization policy based on existing suitability maps and changing rainfall patterns.	MINAGRI	2018
B29	Promote local production and use of fertilizer blends that fit requirements of specific crops and specific soils.	MINAGRI & PSF	2017 onward
B30	Expand use of secondary and micro-nutrients to optimize productivity, value-cost ratio and increase farm income.	RAB & MINAGRI	Season 2019A
Regarding nutrition programs			
C1	Strengthen nutrition awareness and education programs at household level.	Districts, MoH, MIGEPROF & DPs	Continuous
C2	Strengthen woman's education, empowerment and influence within the household; including special access to extension services.	MIGEPROF & DPs	Continuous
C3	Incorporate nutrition education component into all agriculture programmes and projects to improve consumption of nutritious crops among producing farmers.	MINAGRI & DPs	2018 onward

Rf.#	Recommendation	Responsible institution(s)	Timeframe
C4	Develop programs that support awareness campaigns against risks of overweight and obesity among all categories of the population.	MoH & DPS	2018 onward
C5	Strengthen nutrition and gender education components in the training curriculum of agriculture extension agents.	RAB & Districts	2018
C6	Ensure consistency in implementing of Essential Nutrition Actions and promote efficient geographic targeting across the 30 Districts of the country.	MoH, Districts & DPs	Continuous
C7	Develop extension messages related to safe handling of food items and safe storage, and integrate these as part of the package of FFS facilitators, farmer promoters, CHWs and other private services providers.	MINICOM, MINAGRI, MoH & DPs	2018
C8	Set-up national food based dietary guidelines to inform food choices of consumers and facilitate nutrition education and behaviour change activities through grass root agriculture and health extension workers.	MoH and DPs	2018
C9	Increase community sensitization to regularly take their children under 5 years to GMP sessions at health center level.	MoH & Districts	Continuous
C10	Strengthen programs that promote access to energy dense/nutrient rich foods, especially for children and pregnant and lactating women groups (PLWG).	MoH, Districts & DPs	2018-2019
C11	Expand access to potable water in both rural and urban areas through increased investment in treatment and supply infrastructure.	MININFRA, Districts & DPs	2018 onward
C12	Promote integration of WASH in all community level intervention programs on food and nutrition security.	MoH, MININFRA, Districts & DPs	Continuous
C13	Design and implement awareness programmes that promote improved sanitation and enforce adoption of individual latrines in rural areas.	MoH, MININFRA and Districts	Continuous
C14	Expanded and strengthened support to community health workers and other grassroots nutrition agents that disseminate sanitation and hygiene messages.	MoH & Districts	2018 onward
C15	Improve health facility infrastructures to properly accommodate nutrition services.	MoH & DPs	2018 onward
C16	Mobilize and allocate sufficient budget, commodities and materials for nutrition services at health facility level.	MoH, MINECOFIN & DPs	2018 onward
C17	Strengthen programs that promote access to energy dense/nutrient rich food for school-going children	MoH & DPs	2018 onward
C18	Maintain external food assistance for refugees and other forcibly displaced populations with the aim to "leaving no one behind".	MIDIMAR & DPs	Continuous
C19	Provide sufficient and quality food for refugees in exiting camps in Rwanda to avoid malnutrition. Recent assessments indicate for instance that access to nutritious food by refugee households is inadequate and the current food rationing lasts for 23 days only.	MIDIMAR & DPs	Continuous
C20	Promote alternative income sources other than humanitarian assistance the refugee camps, through effective implementation of the newly developed Strategy on Economic Inclusion of Refugees.	MIDIMAR & DPs	2018 onward
C21	Support interventions that promote other dimensions of nutrition security such as WASH in refugee camps.	MIDIMAR & DPs	2018 onward

Rf. #	Recommendation	Responsible institution(s)	Timeframe
C22	Maintain feeding programs to prisoners with the aim to “leaving no one behind”.	RCS, MINIJUST & DPs	2018 onward
C23	Provide sufficient food to prisoners in exiting prison establishments to avoid malnutrition.	RCS, MINIJUST & DPs	2018 onward
C24	Strengthen existing alternative sources of income and food for prisoners through support to strategy developed by the Rwanda Correctional Services (RCS).	RCS & DPs	2018 onward
C25	Support interventions that promote other dimensions of nutrition security such as WASH in prison establishments.	RCS, MININFRA & MINIJUST	2018 onward
Regarding social protection programs			
D1	Continue expansion of social safety nets interventions to include the poor, food insecure, and households with children affected by malnutrition.	MINALOC & DPs	2018 onward
D2	Ensure that the most food insecure and vulnerable households are rightly categorized under <i>Ubudehe</i> classification scheme so as to benefit targeted pro-poor support opportunities.	MINALOC, LODA, Districts & DPs	2018 onward
D3	Improve and fine-tune existing mechanisms to address complaints and ensure more transparency and inclusiveness.	MINALOC, LODA & Districts	2018 onward
D4	Include <i>Ubudehe</i> categories 2 & 3 among beneficiaries of blended fortified food with Government subsidies. However, an exit strategy with clear timelines has to be elaborated for each category and enforced.	MINALOC & MINECOFIN	2018 onward
D5	Establish a strong partnership between MINAGRI/RAB and MINALOC/LODA to ensure a coordinated approach on targeting of agricultural asset transfer schemes and agricultural extension services to poor and vulnerable population groups.	MINALOC & MINAGRI	Season 2019A
D6	Align priorities of social protection and agriculture in the <i>Imihigo</i> performance contracts at District level.	MINALOC, MINAGRI, MINECOFI & Districts	2018-2019 planning
D7	Build the capacity of Local Governments to coordinate social protection interventions with other programs and services delivered at Sector level.	MINALOC & DPs	Continuous
D8	Strengthen <i>Girinka</i> program and other livestock programmes to realize impact at scale, including through the distribution of small livestock animals to poor and vulnerable households that are land-constrained.	MINAGRI & MINALOC	2018 onward
D9	Timely payment for VUP-PW to allow beneficiary households re-invest in productive activities such as inputs.	MINALOC, LODA & Districts	2018 onward
D10	Enforce harmonization of a cross-sectoral M&E system between MINAGRI & MINALOC and create a dedicated joint working group.	MINAGRI, MINALOC & MINECOFIN	2018 onward
D11	Reinforce harmonization of project design and beneficiary targeting under public works (PW) programmes (e.g. feeder road construction and maintenance, land terracing, construction of drainage ditches, reforestation, etc. under VUP and MINAGRI’s PW schemes) in order to efficiently respond to the needs of the extremely poor households and communities exposed to national disasters.	MINALOC, MINAGRI & DPs	2018 onward
D12	Strengthen capacity of Local Governments and agents from other sector line ministries with a view to promoting the adoption of the community-based approach to labor-intensive public works in other sector programmes.	MINALOC, LODA, Districts & DPs	2018 onward
D13	Improve planning and timing between agriculture and social protection PW to ensure that poor households have employment and income even during off-agricultural season period.	MINALOC and MINAGRI	2018-2019 planning

Rf.#	Recommendation	Responsible institution(s)	Timeframe
D14	Improve nutrition sensitive social protection interventions and strengthen linkages with the needs of the target groups.	MINALOC, Districts & DPs	2018 onward
D15	Support a comprehensive capacity development for nutrition education strategy for extension services.	MINAGRI, RAB, Districts & DPs	2018 onward
D16	Develop an effective shock-responsive/sensitive social protection system (including early warning system, contingency plans, financing and adequate institutional arrangement) that will strengthen risk mitigation and rapid response system to weather shocks and disasters that induce food insecurity among poor households in bad years.	MINALOC, MINAGRI & DPs	2018 -2019
D17	Continue the support to the subsidized health insurance scheme.	MoH & MINECOFIN	2018 onward
D18	Customize and scale-up implementation of the minimum package for household graduation that is being piloted and comprising of training, coaching support, and linkages to complementary advisory services, especially business, agricultural and veterinary services.	MINALOC, MINAGRI and Districts	2018
D19	Strengthen follow-up and advisory services of pro-poor programmes beneficiaries to ensure sustainability beyond direct provision of support.	MINALOC & Districts	2018 onward
D20	Enhance VUP's awareness-raising component, including nutritional knowledge, as well as knowledge of family planning, HIV, AIDS, etc. among program beneficiaries.	MINALOC, Districts, MoH, MIGEPROF & DPs	2018 onward
Closing data and knowledge gaps			
E1	Initiate national level studies to assess risk underlying factors behind the persistence of child under nutrition (e.g. by gender, residence and wealth quintiles) despite the progress made in food production and poverty reduction; reasons why infants and young children tend to become more malnourished after introduction of complementary foods; why some districts/regions are doing better than others in reducing malnutrition, impact of nutrition interventions on Minimum Acceptable Diet, etc.	MoH & DPs	2018-2019
E2	Review the methodology of national statistics in order to collect disaggregated data on household FNS outcomes by sex, age group, employment status, vulnerability level- i.e. disabilities, economic activity, poverty status, geographic location- i.e. rural vs. urban households, AEZs, etc.	NISR & DPs	2018-2019
E3	Improve the Seasonal Agriculture Survey (SAS) design in order to capture data that is required to monitor SDG-2 targets and provide analysis on national food balance sheet taking into account supply (domestic production, imports, exports, change in stocks and available supply), domestic utilization (feed, seed, waste and other uses) and per capita food supply (Kcal, protein and fat/person/per day). Food balance sheet should be a regular annual exercise based on countrywide pre-harvest and post-harvest information.	NISR & MINAGRI	2018-2019
E4	Improve the scope of the Demographic Health Survey (DHS) in order to collect data on other micronutrients deficiencies (such as vitamin A, other minerals and vitamins) than anaemia.	NISR & MoH	2018-2019
E5	Commission policy studies on food systems to understand linkages between food needs, food preferences, food production and food costs; and provide guidance on how to fill nutrient gaps at national, local and household levels. These studies shall also explore how the food basket price could be progressively reduced in Rwanda.	MINAGRI, MINICOM & DPs	2018-2019
E6	Carry out standardized studies aiming at understanding other micronutrients deficiencies, diet diversification between ages and between various geographical locations.	MoH, NISR & DPs	2018-2019

Rf.#	Recommendation	Responsible institution(s)	Timeframe
E7	Set-up and/or improve monitoring and evaluation systems that provide continuous feedback mechanisms to inform FNS programs at all levels. For instance, to better understand the food and nutrition security situation in the country, the following additional intermediate outcome indicators could be integrated in the M&E framework: <i>diversity of foods produced on-farm, smallholder farmers household income, physical access to markets, price of nutrient rich foods in local market (or price of a healthy diet), food preferences, women's empowerment in agriculture index, productivity and diversity of off-season farming, proportion of sustainable agriculture practices, the minimum acceptable diet for children 6-23 months, minimum dietary diversity for women of reproductive age, household dietary diversity score, household hunger score, coping strategies index, etc.</i>	MINAGRI, MoH, MINALOC & DPs	2018-2019
E8	Institute impact research of programmes supporting homestead production e.g. CIP, One Cow per Poor Family Programme (<i>Girinka</i>), Kitchen garden programme, small livestock rearing programme.	MINAGRI, MINECOFIN & NISR	2018-2019
E9	Train and involve community level workers in collecting data that will improve monitoring and evaluation of FNS progress.	NISR, MoH & MINAGRI	2019
E10	Create systems for data and information sharing, including an accessible dashboard or portal of best practices for scaling up successful programs or interventions.	NISR, MINECOFIN & DPs	2018-2019
E11	Build a framework and database of <i>Ubudehe</i> beneficiary households.	LODA & MINALOC	2018-2019
E12	Generate information on nutrition budgets and spending in order to improve accountability and to track and monitor resourcing progress.	MINECOFIN	2018
E13	Strengthen and capacitate the national research system in order to increase research outputs in new areas relevant for FNS as above described.	MINAGRI & MoH	2018-2019
E14	Develop a national communication plan that involve all types of media in conveying innovative messages and approaches on consumption of nutritious food and eradication of malnutrition.	MoH, MIGRPROF & MIN-AGRI	2018

Rf.#	Recommendation	Responsible institution(s)	Timeframe
Strengthening coordination and capacity improvement for FNS			
F1	Continue strengthening cross-sectoral collaboration to deliver interventions (policies, programmes, activities, etc.) at scale through the newly established "joint <i>Imihigo</i> " framework.	PMO & MINECOFIN	2018-2019 planning
F2	Revisit the options of placing the NFNCS under a higher level office for an effective vertical and horizontal coordination of activities under line ministries and agencies.	PMO & OTP	2018
F3	Develop a capacity building plan in order to enhance skills and expertise related to FNS by all stakeholders. Majority of focal points in different Ministries have education background that is not really relevant to the mainstreaming of food and nutrition security in the sector planning and implementation. Government and partners should train more nutrition specialists that will be placed in various ministries that engage in cross-cutting FNS issues.	MINECOFIN, MINAGRI, MoH & DPs	2018-2019
F4	Resource mobilization to finance FNS sector will need to go beyond the allocated resources to a one basket of fund that is specific to FNS interventions. Alternatively, increasing the budget proportions in these relevant sectors can also increase resources needed. Government and partners will need to come up with innovative models of resource mobilization to finance FNS in addition to conventional sources of finance.	MINECOFIN, MoH & MIN-AGRI	2018-2019 planning
F5	Partners in all clusters contributing to FNS should have clear and integrated accountability mechanisms to ensure "joint planning, resourcing, implementation, and evaluation".	PMO & MINECOFIN	2018-2019 planning
F6	Regular training of health care givers (including CHWs) in nutrition specific interventions such as maternal infant and young child nutrition (MIYCN), management of acute malnutrition, management of diet-related non-communicable diseases, etc.	MoH & DPs	2018 onward
F7	Invest in capacity development of agricultural extension agents on nutrition related matters and develop appropriate information packs for farmers to improve the link between food production and nutrition security.	MINAGRI, MoH & DPs	2018 onward
F8	Develop an operational plan for implementing the National Food and Nutrition Strategic Plan, including strengthening human and financial capacities of the NFNCS.	MoH, MINALOC, MIGE-PROF & MINAGRI	2018

Rf.#	Recommendation	Responsible institution(s)	Timeframe
F8	Continue enforcement of a strong involvement of Local Government (Districts, Sectors, Cells, and Villages) in policy and program planning for food security and nutrition.	MINECOFIN	2018-2019 planning
F9	Strengthen community level programs that builds capacity, knowledge, and accountability of households to synergistically address food utilization, sanitation and hygiene.	Districts, CSOs & DPs	2018 onward

Appendix 12. List of Key Informants during the Consultations

Stakeholder/ category	S/ N	Institution/Organizat ion	Focal Points	Area	E-mail address	Phone number
GOVERNMENT	1	MOH/RBC	Mucumbitsi Alexis	Food & Nutrition	mucumbitsi2002@yahoo.fr	0788585333
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NGOs	22	CARITAS	Kanyamibwa Callixte	Food & Nutrition		
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Acronyms/Abbreviations

AI	Artificial Insemination	FAO	Food and Agriculture Organization
AIF	Africa Improved Food	FARG	Fonds pour l'Assistance aux Rescapés du Génocide au Rwanda
AfDB	African Development Bank	GBV	Gender-Based Violence
BCC	Behavioral Change Communication	FC	Farmers in Cooperatives
BNR	Banque Nationale du Rwanda	FDI	Foreign Direct Investment
CAADP	Comprehensive Africa Agriculture Development Programme	FDRL	Force Démocratique de Libération du Rwanda
CBNP	Community-Based Nutrition Program	FLJSR	Forward Looking Joint Sector Review
CCP	Common Country Programme	FNS	Food and Nutrition Security
CCS	Country Cooperation Strategy	FPs	Farmer Promoters
CPF	Country Programming Framework	FTMA	Farm to Market Alliance
CEDAW	Convention on the Elimination of All forms of Discrimination against Women	GDP	Gross Domestic Product
CFSVA	Comprehensive Food Security and Vulnerability Analysis	GoR	Government of Rwanda
CHWs	Community Health Workers	HH	Household
CIP	Crop Intensification Program	HSSP	Health Sector Strategic Plan
CSOs	Civil Society Organizations	ICT	Information and Communications Technology
CSR-FNS	Rwanda Strategic Review for Food and Nutrition Security	IFC	International Finance Corporation
DAP	Di-Ammonium Phosphate	IFPRI	International Food Policy Research
DFID	Department for International Development (United Kingdom)	IMCC	Inter-Ministerial Coordination Committee
DF&NSC	District Food and Nutrition Steering Committee	IMP	Irrigation Master Plan
DHS	Demographic Health Survey	IPAR	Institute of Policy Analysis and Research
DPEM	District Plans to Eliminate Malnutrition	IYCF	Infant and Young Child Feeding
DPs	Development Partners	JADF	Joint Action Development Forum
ECD	Early Child Development	JAPEM	Joint Action Plan to Eliminate Malnutrition
EDPRS	Economic Development and Poverty Reduction Strategy	KM	Kilometer

EICV	Enquête Intégrale sur les Conditions de Vie des Ménages (Integrated Household Living Conditions Survey)	LODA	Local Administration Entities development Agency
ENAs	Essential Nutrition Actions	MDGs	Millennium Development Goals
ERFS	Environmental Remediation and Financial Services	M&E	Monitoring and Evaluation
MIDIMAR	Ministry of Disaster Management and Refugee Affairs	RDHS	Rwanda Demographic and Health Survey
MIGEPROF	Ministry of Gender and Family Promotion	RDRC	Rwanda Demobilization and Reintegration Commission
MINAGRI	Ministry of Agriculture	REACH	Renewed Effort Against Child Hunger and Undernutrition
MINALOC	Ministry of Local Government	REMA	Rwanda Environmental Management Authority
MINECOFIN	Ministry of Finance and Economic Planning	RPHC	Rwanda Population and Housing Census
MINEDUC	Ministry of Education	RWF	Rwanda Franc
MINICOM	Ministry of Trade and Industry	RPSDS	Rwanda Private Sector Development Strategy
MINILAF	Ministry of Land and Forestry	LODA	Local Development Authority
MININFRA	Ministry of Infrastructure	SAS	Seasonal Agricultural Survey
MIYCN	Maternal Infant and Young Child Nutrition	SCF&NSC	Social Cluster Food and Nutrition Steering Committee
MoE	Ministry of Environment	OTP	Office of the President
MOH	Ministry of Health	SDGs	Sustainable Development Goals
MYICT	Ministry of Youth and ICT	SHF	Smallholder Farmers
NFNP	National Food and Nutrition Policy	SMART	Specific, Measurable, Agreed upon, Realistic and Time-based
NFNSP	National Food and Nutrition Strategic Plan	SSPs	Sector Strategic Plans
NFNCS	National Food and Nutrition Coordination Secretariat	UN	United Nations
NF&NTWG	National Food and Nutrition Technical Working Group	UNDAP	United Nations Development Assistance Plan
NGOs	Non-Government Organization	UNICEF	United Nations Children's Fund
MIS	Market Information System	UNHCR	United Nations High Commission for Refugees
NISR	National Institute of Statistics Rwanda	USAID	United States Agency for International Development

NPK	Nitrogen Phosphorus Potassium	VUP	Vision 2020 Umurenge Program
ODA	Official Development Assistance	VUP/ PW	VUP Public Works
PAC	Parliament's Public Account Committee	WASH	Water, Sanitation and Hygiene
PMO	Prime Minister's Office	WFP	World Food Programme
PSF	Private Sector Federation	WB	World Bank Group
PSTA	Plan Stratégique pour la Transformation de l'Agriculture	WHO	World Health Organization
P4P	Purchase for Progress Program	WSS	Water Supply and Sanitation
RAB	Rwanda Agriculture Board	7YGP	Seven Years Government Program
RDB	Rwanda Development Board	9YBE	Nine Years Basic Education
RDF	Rwanda Defense Force	12YBE	Twelve Years Basic Education

Food and nutrition security is particularly linked to SDG 2: “End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.” On a continental level, the commitment is reiterated under the 2014 Malabo Declaration to “End hunger in Africa”, which stipulates that African countries must end malnutrition in all its forms by 2025. To further facilitate the localization of SDGs, the Government has undertaken this *Rwanda Country Strategic Review of Food and Nutrition Security* (Strategic Review) to accelerate progress toward achieving national and global FNS goals. This Strategic Review is expected to provide the current status of FNS, identify gaps in the national policy and programming response, and give recommendations to inform the ongoing strategic planning processes. Specific objectives of the Strategic Review are:

- (i) to establish a comprehensive and detailed status of food and nutrition security;
- (ii) to conduct a review of existing food and nutrition security related strategies, policies, plans and programs, and to identify policy and strategic response gaps;
- (iii) to provide an overview of potential measures and mechanisms of priority areas designed to accelerate progress towards achieving FNS targets.

The Strategic Review is based on a comprehensive and holistic content analysis of all existing and relevant policies, strategies, programmes, surveys, and studies on FNS. The Strategic Review is also informed by data collected from consultations and feedback collected from various stakeholders within the public and private sectors, including UN agencies, bilateral and multilateral partners, Civil Society Organizations (CSOs), DPs, international and national Non-Government Organizations (NGOs), and research and development organizations among others. It is worth noting that the Strategic Review does not include an impact assessment of previous programmes and policies on FNS. An Advisory Group was established to provide overall guidance, inputs and comments towards this Strategic Review.

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