



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 01-May-2018 | Report No: PIDISDSC23361

**BASIC INFORMATION****A. Basic Project Data**

Country Rwanda	Project ID P164520	Parent Project ID (if any)	Project Name Sustainable Agricultural Intensification and Food Security Project (P164520)
Region AFRICA	Estimated Appraisal Date May 14, 2018	Estimated Board Date Jun 14, 2018	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Republic of Rwanda	Implementing Agency Rwanda Agriculture Board (RAB)	

Proposed Development Objective(s)

To increase agricultural productivity, market access and food security in targeted project areas.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	26.30
Total Financing	26.30
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS**Non-World Bank Group Financing**

Trust Funds	26.30
Global Agriculture and Food Security Program	26.30

Environmental Assessment Category

B - Partial Assessment

Concept Review Decision

Track II-The review did authorize the preparation to continue



Other Decision (as needed)

B. Introduction and Context

Country Context

Rwanda is a small landlocked country, with arable land estimated to be 48 percent of the total area of 26,338 km² with few natural resources, a population of 10.7 million (2012), and a projected population of 13 million by 2020. Its hilly terrain covers 85 percent of the land mass and the country has the highest population density in Africa, with 416 people per square kilometer, 53 percent of them female. Rwanda has made a remarkable transition from genocide to peace and development.

Despite being among Africa's poorest countries, Rwanda has achieved impressive growth and poverty reduction over the last decade. Although the country is still dependent on Official Development Assistance which finances approximately 40% of the country's annual budget. Rwanda's economy has grown at 7.9% per year since 2000. Between 2000 and 2016 GDP per capita has increased from \$242 in 2000 to \$729 and poverty has fallen from 60.3 to 39.1%¹. Inequality has reduced as well with the Gini coefficient dropping from 0.49 in 2011 to 0.45 in 2014. Life expectancy at birth has increased from 48.2 years in 2000 to 64.5 years in 2015², while the child mortality rate dropped from 183/1000 to 42/1000³. The youth literacy rate increased from 77 per cent in 2010 to 85 per cent in 2015⁴. Financial inclusion increased from 48 per cent in 2008 to 89 per cent by 2016⁵. However, despite strong economic growth and falling poverty levels, Rwanda faces significant challenges in meeting food demands and food security and malnutrition remain a concern with overall stunting rates at 38%.

While improving, Rwanda remains a low-income country. About one in four rural households lives in extreme poverty. Poverty is still mostly a rural phenomenon: 49 percent of the poor live in rural areas compared to 22 percent in urban areas. Poverty is highest (76.6 percent) among households (often landless) who obtain more than half of their income working on other people's farms. On the other-hand demographic projections suggest that by 2032 rural areas will be home to an additional 2.5 – 3.5 million Rwandans; land is already so scarce (50 percent of rural farm households farm less than 0.35ha) that few can be meaningfully accommodated in farming. With a working age population projected to increase from 5.2 million (in 2014) to 6.6 million – of which 4 million will be youth (14 – 35 years old), realizing labor productivity potential and meeting individual aspirations will require off-farm employment opportunities.

¹ NISR, EICV 1-4

² World Bank Indicators: http://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=RW&name_desc=true

³ Ibid.

⁴ Ibid

⁵ NISR, FinScope (2016) financial inclusion is defined as access to formal financial institutions and the uptake and usage of financial products and services.



Rwanda's National Strategy for Transformation (NST)⁶ focuses on economic, social and governance transformation toward the aspiration of Vision 2050. Under this vision, Rwanda aspires to attain upper middle-income country status by 2035 and high-income status by 2050 with the intention of providing high quality livelihoods and living standards to Rwanda citizens by mid-century. Vision 2050 stresses the importance of agro-processing and technology-intensive agriculture with a commercial focus.

Sectoral and Institutional Context

Agriculture is crucial for Rwanda's economic growth and reduction of poverty. Accounting for about 33 percent of the gross domestic product (GDP) (2015), and contributing to 35 percent of the total decline in poverty rates over the past decade⁷. Agriculture plays an important role in the overall economy. Also, about 70 percent of population is engaged in the sector. At the aggregate level, domestic food production almost equals domestic demand and farmers' own production is an important source of food at the household level. Agriculture is also a major source of export earnings, in 2016, exports of agricultural and agro-processed goods were about \$252 million, roughly 52 per cent of total goods exports.

With 5.3 per cent average annual growth, the agricultural sector has more than doubled in value from 2000 to 2016. A well-established set of policy frameworks and enhanced access to better agricultural inputs, has greatly contributed to the positive agriculture sector performance. Crop yields increased significantly with the start of the Crop Intensification Program (CIP) in 2007 and the beginning of land consolidation in 2008. The total production of cassava and maize, as well as milk, meat, fish and eggs, more than doubled between 2005 and 2015. Despite these positive developments, Rwanda has yet to meet its production potential as agricultural yields have starting plateauing. Current estimates indicate that major crops such as cassava, maize, wheat, potatoes, and beans are at 40-50 percent of their productivity potential, due to suboptimal use of production factors. Similarly, livestock yields have remained consistently low over time.

Small plot sizes, limited land availability and low soil fertility due to erosion are major constraints on farm productivity and profitability and prevent farmers from moving further up the value chain. More than 60% of households cultivate less than 0.6 ha⁸ and 15% of rural household's farm less than 0.1ha many of which are female-headed households, cultivating only 1.32% of national cultivable land⁹. The prevalence of small scale, subsistence, rain-fed farming results in sub-optimal agricultural practices, low crop yields and exposure to risks such as weather-related shocks and pest and disease outbreaks. Soils in Rwanda also tend to have low levels of organic matter and around 75% of soils are acidic¹⁰, with a pH below 5.5 and deficient in nitrogen and phosphorus – these are also constraining factors for plant growth. The projected increase in the rural population, an estimated additional 2.5-3.5 million people by 2032, is likely to add more pressure on land resources and farm incomes, unless alternative employment opportunities become available.

Rwanda agriculture sector is vulnerable to climate change. With less than 20% of agriculture land irrigated, Rwanda agriculture rely strongly on rain-fed agriculture making it highly vulnerable to climate change. Rwanda already experiences periodic floods and droughts that take a severe socio-economic toll on the country and decrease food availability and with

⁶ The NST follows the Economic Development and Poverty Reduction Strategy 2 (EDPRS 2, ending in June 2018) and will implement the last years of Vision 2020 and the first four years of the Vision 2050.

⁷ World Bank (2017), Transformation of Agriculture Sector Program Phase 3, Program -for -Results, Additional Financing Program Paper

⁸ NISR, EIVC 4 2013/2014

⁹ IFPRI calculations, based on EIVC 4 data 2013/2014

¹⁰ REMA (2015) State of Environment and Outlook Report



climate change, those costs could rise additionally to 1% of GDP per year by 2030, an estimate which excludes the heavy periodic costs of extreme events¹¹. Localized projections for climate change in Rwanda point unequivocally to an already occurring increase in mean temperature and a projected additional increase of 1.7 to 2.8C by 2065 with a likely increase in precipitation amounts and timing variability¹². Adaptation concerns are central to the Rwanda's Green Growth and Climate Resilient Strategy (2011) and have been translated in the Rwanda's Intended Nationally Determined Contribution (INDC). Identified adaptation actions in agriculture include sustainable pest management techniques to control plant parasites and pathogens; soil conservation and land husbandry; irrigation and water management, value addition of agriculture produces and access to market.

Despite substantial growth in agricultural production over the past 10 years, food security and nutrition remain a concern, especially when looking at the vulnerability to shocks at the household level. While stunting and undernourishment have been reducing at a steady pace, overall stunting rates remain high by international comparison (38 per cent)¹³, and 17.8 per cent of 6-23 months old do not meet the Minimum Acceptable Diet¹⁴. By the CARI measure, 20% of Rwandan households are food insecure¹⁵. The Food Consumption Score has improved from 65 per cent in 2006 to 74 per cent by 2015 but a large share of the population remains dependent on rain-fed agriculture and auto-consumption. Hence, people's ability adequately to feed themselves is vulnerable to shocks to the domestic harvest such as periodic droughts and floods. Consequently, food security and nutrition remains important areas to which agriculture development can contribute.

The government of Rwanda has made a strong political commitment to gender equality and is determined to see this reflected in government policies at all levels. In Rwanda women make up 57% of the agriculture labor force, working an estimated 14-17 hours a day. A Women's Empowerment in Agriculture Index (WEAI) survey conducted in 2012 identified that key constraints for Rwandan women are very high workloads, lack of access to and decisions on credit, and inability to control the use of income. MINAGRI, guided by its agriculture gender strategy, make concerted efforts to mainstream gender and engage in gender sensitive policy making and programming. Interventions aimed at empowering women in agriculture make specific gender-responsive provisions to target and include women and design solutions that are tailored to their gendered needs and challenges such as improving access to finance for women, and reducing their workload.

The Strategic Plan for Agricultural Transformation (PSTA4), part of the National Strategy for Transformation (NST), covering the period of 2018-2024 is currently being designed. The new strategy is being designed around the updated National Agriculture Policy (2017-2030). Priority actions in the new strategy are centered around four pillars of the policy which aims towards a *productive, green and market-led agricultural sector*: (i) Productivity and commercialization for food security, nutrition, and incomes; (ii) Resilience and sustainable intensification; (iii) Inclusive employment and improved farmers' skills and (iv) an Effective enabling environment and responsive institutions. The new policy and strategy emerging priorities include climate smart and nutrition sensitive agriculture, market access for farmers and feeding the cities, support to institutions towards a private sector enabler role from an actor. This proposed project will contribute mostly to the PSTA4 priorities (i) Productivity and commercialization for food security, nutrition, and incomes; and(ii)

¹¹ Downing et al. (2009) Economics of Climate Change in Rwanda. Stockholm Environment Institute

¹² McSweeney, R. (2011) Rwanda's Climate: Observations and Projections Appendix E. Cole, M., ed. UK Department for International Development.

¹³ NISR, Rwanda Demographic and Health Survey (2014/2015)

¹⁴ Ibid.

¹⁵ NISR, Comprehensive Food Security and Vulnerability Assessment (CFSVA), (2015)



Resilience and sustainable intensification. The project implementation will focus on climate smart agriculture, nutrition sensitive agriculture and market access to small holder farmers. The World Bank will also support the implementation of the PSTA4 through a Program for Result operation.

The central government, through the Ministry of Agriculture and Animal Resources (MINAGRI), provides policy, coordination, and monitoring. Implementation responsibilities rest with implementing agencies, Rwanda Agriculture Board (RAB), National Agriculture Export Board (NAEB) and donor funded projects implementation units referred at as Single Project Implementation Units (SPIUs). The recent decentralization of the Rwandan public administration empowers local governments to deliver agricultural services to farmers and, more broadly, serve as the focal point in representing the needs of the local communities and coordinating multi-sector responses. They absorb the functions of the previous local branches of MINAGRI, and rely on a new partnership with the central government. Extension is mainly implemented through the “*Twigire-Muhinzi-Mworoz*” Extension Model. The “*Twigire*” extension model is a national strategy that decentralizes extension services to the village level (Umudugudu) to empower the agricultural promoters living daily with farmers, especially 2500 certified facilitators of Farmer Field School (FFS) disseminated throughout the country.

Relationship to CPF

The proposed project well aligned with the Country Partnership Strategy (CPS) FY14-20, which supports government efforts to accelerate private sector-led growth and further reduce poverty. The project will support the following agriculture priorities outlined in the CPS: (i) boosting productivity based around soil conservation and land husbandry; (ii) facilitating a transition from subsistence to more commercial farming practices; (iii) tackling underemployment in rural areas and raising rural incomes; (iv) strengthening the enabling environment to attract and retain private investment; (v) encouraging entrepreneurship; and (vi) facilitating market access. Another priority of the CPS is to address the persistent challenge of child malnutrition in rural areas. The proposed project will contribute to this objective through nutrition-sensitive agriculture interventions. Overall, the project will contribute to the achievement of three CPS outcomes: (i) CPS Outcome 5, ‘improved agriculture productivity and sustainability’, (ii) CPS Outcome 6, ‘improved access of rural /small farmers to inputs, financing, and markets’, and (iii) CPS Outcome 7, ‘improved agriculture value chains.’

C. Proposed Development Objective(s)

To enhance agricultural productivity, value chain development and food and nutrition security of targeted rural populations in an environmentally sustainable manner.

Key Results (From PCN)

The success of the project will be measured in terms of the capacity of the rural institutions supported to continue and expand the activities undertaken for the benefit of farmers without additional external support.

Four indicators have been identified as potential PDO indicators:

- (i) an increase in the productivity of targeted crops in project areas (t/ha) disaggregated by crop,
- (ii) an increase in both the volume and value of produce marketed,
- (iii) number of people receiving improved nutrition services and products through the project and
- (iv) the number of direct project beneficiaries, of which women (percentage).



D. Concept Description

The proposed Sustainable Agricultural Intensification and Food Security Project (SAIP) will consolidate and expand results obtained in the Bank funded projects, Land Husbandry, Water Harvesting and Hillside Project (LWH) and the Third Rwanda Sector Support Project (RSSP3), and other selected MINAGRI developed schemes. The project will continue capacity building activities of the farmers' organizations (WUAs, SHGs, cooperatives) established under these projects, help them link better to the markets to create additional livelihood opportunities and expand activities to further scale up nutrition sensitive and climate resilient agriculture. The sustainability of the outcomes achieved depend, to a large degree, on the robustness and strength of the producers' organizations, their entrepreneurial skills and their negotiation capacity with commodity buyers, other value chain actors, and their entrepreneurial capacity. This project will invest in ensuring the sustainability of these achievements and introduce a gradual exit strategy for the existing projects. As part of the consolidation of previous work done, the project will document the pathways of transformation triggered by a holistic approach and document the approaches for project exit strategies. Special consideration will also be given to youth to stimulate profitable engagement in agriculture and agribusinesses, through developing skills and promotion entrepreneurship.

The project's Theory of change and lessons learnt, is based on a holistic approach combining several transformative pathways simultaneously to secure the ultimate result of improving livelihoods, food and nutrition security through increased agricultural productivity, value addition and access to markets in an environmentally sustainable manner.

- **The social capital pathway** starts from the premise that farmers' organizations, including Self Help Groups (SHGs), Cooperatives and Water User Associations (WUAs), unions and commodity associations are central to a sustainable and inclusive agricultural development. They need to develop into strong, well-organized, well-managed professional and financially independent institutions, able to provide services and added value to their members. Experience shows that the consolidation of socio-economic institutions like cooperatives and WUAs, is a mid to long-term objective. Therefore, SHGs, WUAs and cooperatives, at varying levels of maturity, which have earlier received support, will continue to receive support to bring their organizational and managerial capacities to a level where they can be independent from external assistance and the engines of their own development. Continued investment in asset building (including drying, processing and storage facilities) in favor of the less mature cooperatives, will strengthen their physical capital and increases their competitiveness. At the same time these assets can function as a catalyst to strengthen social capital (i.e. training is anchored on the need to build skills and systems to manage and maintain rural infrastructures) while also serving as a venue for nutrition sensitive activities (e.g. peer nutrition messaging, cooking demonstration, etc). The more mature cooperatives that have already benefitted from previous investments in post-harvest infrastructure will be supported to plan necessary investments with their own capital.
- **The sustainable production pathway**, considers the transformative changes required to realize environmentally sustainable and resilient production and productivity increases. Rwanda's major environmental problem is related to a very high population density on agricultural land which is mostly hilly resulting in high erosion levels and consequent soil degradation. GOR has been investing heavily on terracing and liming, agroforestry as well as production and application of compost and manure with positive results in terms of improvements in soil fertility and, consequently, productivity gains. These techniques will be consolidated and up-scaled through the training-of-trainers at the level of District extension agents in conjunction with SHGs and the agricultural specialists employed directly by the cooperatives. Co-financing of small scale irrigation schemes will be made available to



complement the large-scale irrigation model and increase significantly the resilience of the production systems. Diversification of production is also key to resilience and to improve nutrition outcomes of the agriculture.

- **The business and market development pathway** focuses on building inclusive and durable market linkages through which strong and self-reliant cooperatives are able to sell increased volumes of produce. A number of successful cooperatives supported by MINAGRI are now capable of exploring and consolidating market outlets for their produce at well-negotiated prices. The proposed project will continue to accompany those cooperatives which have not yet reached the required level of maturity to develop this market development function. Efforts will be made to strengthen the role of cooperatives in business and market development, while at the same time building the capacity of supporting institutions such as unions and commodity federations in business development and policy dialogue to create an enabling environment for private sector engagement. To build successful market linkages, cooperatives need to be able to produce consistent and good quality products. Investments improving post-harvest processes and value addition will be made, while at the same time Saving and Credit Cooperatives (SACCOs) will be supported to be able to provide finance to the cooperatives enabling them to professionalize and expand their operations.

Areas of intervention and beneficiary targeting, for the proposed project are existing LWH and RSSP sites in Gatsibo, Gicumbi, Karongi, Kayonza, Ngoma, Nyabihu, Nyamagabe, Nyanza, Rulindo and Rwamagana districts; and in other areas where MINAGRI has developed agriculture schemes. The target group will be farmers operating in the selected sites areas. Though most of these farmers have received prior assistance, they need further support to consolidate gains and sustainably reap the benefits of the investments and marketing systems made in these sites.

The project will target men, women and youth in rural households in existing and newly developed irrigation schemes and their catchment areas; 200,000 beneficiaries will benefit directly, through households organized in self-help groups (SHGs) of 20-30 members established under the LWH project. In each of the approximately 20 production sites to be supported, these self-help groups have mobilized to form 2-3 cooperatives. In some areas, the irrigation and post-harvest infrastructure are newly developed, and the project will support the formation and strengthening of SHGs to form into cooperatives. The project will work directly with these cooperatives to ensure that at least 80% become sustainable and more resilient (rated category A or B, based on MINAGRI's cooperative grading system³). Emphasis will be placed on ensuring women and youth participation and leadership in the SHGs and cooperatives. The project will ensure that benefits translate directly into improved outcomes at household level.

The impact of the LWH Project has improved land-husbandry and productivity on 20,601 ha lands in 34 pilot watersheds which has resulted in a 79% and 84% reduction in sediment loads and soil erosion respectively. Its approach focused on raising yields through irrigation and other land husbandry practices to reduce erosion, and enhance farm livelihoods. These improved agronomic practices resulted in significant production increases: Irish potato production increased from 3 tons/Ha to 15 tons/Ha, wheat from 0.6 tons/Ha to 2.5 tons/Ha; maize and beans from 0.8 T/Ha to 4T/Ha and 0.6 T/Ha to 3T/Ha respectively. The project also facilitated frameworks that link farmers to commodity buyers and to initiate agreements with several private sector investors thus facilitating farmers' access to loans and improved income. The project also contributed to improving the overall nutrition status of households in the project area, through promotion of kitchen gardens and nutrition education. The proposed project will allow further consolidation of these achievements, focusing on strengthening producers' organizations, their entrepreneurial skills and their negotiation capacity with commodity buyers, other value chain actors, and their entrepreneurial capacity. It will also expand activities to further scale up nutrition sensitive and climate resilient agriculture, while ensuring the sustainability of these achievements by introducing a gradual exit strategy and graduation of supported beneficiaries.



The proposed SAIP will be implemented through four components: (i) capacity development and institutional strengthening for sustainable crop intensification; (ii) support to marketing, value addition and access to finance; (iii) infrastructure for agriculture development and (iv) project management, monitoring and evaluation and technical assistance.

Component 1: Capacity Development and Institutional Strengthening for Sustainable Crop Intensification US \$ 7.8 million

The objective of this component is to strengthen the capacity of existing farmers' organizations and public extension services to provide services to their members for sustainable land development, improved agricultural production. The ultimate objective is to render these organizations autonomous from Government intervention and a level playing partner for Government and private sector. This component will have the following sub-components (i) strengthening farmers' organizations; (ii) strengthening participatory knowledge-intensive extension approaches; and (iii) food security and nutrition ensuring gender equality.

Sub-component 1.1: Strengthening Farmers' Organizations

The project will consolidate past efforts in strengthening farmer organizations (SHGs, cooperatives and Water user's associations (WUAs)). Support will focus on the two broad areas namely the establishment of effective, transparent and accountable management systems and building of a culture of entrepreneurship that encourages market-oriented production. Support to these organizations will focus on ensuring their financial sustainability towards their graduation from Government institutions and external support and encourage participation of women and women in leadership positions.

Some of the more mature cooperatives would benefit greatly from experience exchange and knowledge sharing with neighboring countries and in the region. On the other hand, newer cooperatives would also benefit enormously in visiting more mature cooperatives within Rwanda, an approach that was used by LWH.

Finally, the project will work with and through unions and crop-specific associations and federations. Strengthening these institutions will improve their capacity to support and provide services to the cooperatives and contribute to policy dialogue with Government.

Sub-component 1.2: Strengthening Participatory Knowledge-Intensive Extension Approaches

Rwanda has adapted the farmer field school (FFS) approach to local conditions, promoted as the Twigire Muhinzi extension model, in which farmer promoters (lead farmers) are linked to farmer field schools and are trained by FFS facilitators for increased outreach and to complement services provided by extension workers. The aim of the Twigire/FFS is to build farmers' capacity to independently analyze their production systems, identify problems, test possible solutions and adopt appropriate practices and technologies in a changing environment.

The proposed project, together with District authorities, farmers and their associations, will look for practical solutions to make these systems more sustainable. It will also concentrate on the outstanding and most critical knowledge gaps of farmers. Sustainable crop intensification will depend on the capacity of farmers to make wise technological choices, considering both short and long-term implications. The proposed project will include climate smart agriculture approach



in the extension services. Extension services will also focus on promoting farming as a business (linking with component 2) and will pay attention to strengthening cooperatives, unions and crop-specific federation's capacity to tackle issues related to post-harvest, processing and marketing, including by involving private sector players through different types of contractual arrangements and partnerships.

Attention will be given to horticultural development given Rwanda's ideal agro-climatic conditions to produce a wide variety of fruits and vegetables and because of the high profitability of these crops. The project will promote selected activities in the production and adoption of seed, including of horticultural crops, given the lack of availability of good quality seed and the high financial returns of this activity. Research for highly productive, fortified and disease resilient seeds will also be supported in collaboration with national research institutions and CGIAR system.

Sub-component 1.3: Food security and Nutrition ensuring Gender Equality

The Government of Rwanda (GoR) remains dedicated to achieving food and nutrition security for all. MINAGRI is committed to addressing the food security challenge by building its capacity to mainstream nutritional outcomes into its policy, plans, and programmes. Similarly, the GoR has made a strong political commitment to gender equality and is determined to see this reflected in government policies at all levels. MINAGRI, guided by its agriculture gender strategy, will continue to make concerted efforts to mainstream gender and engage in gender sensitive policy making and programming.

Rwanda has seen significant improvements in wasting and undernourishment rates, but stunting, indicating chronic under-nutrition, remains at 38%. A One UN nutrition project, evaluated in February 2016, has concluded that growing vegetables in home/kitchen gardens is the most direct way for many urban and rural poor families to improve their access to a variety of micronutrient-rich food. In the One UN project, 75% of the beneficiaries, as compared to 7% at baseline, indicated that they consume vegetables from their garden at least once a week. Furthermore, 58% of beneficiaries reported consuming bio-fortified foods (sweet potatoes, beans, maize) at least once a week compared none at project inception. The evaluation also revealed strong synergies between kitchen gardens and nutrition education. With the introduction of education, those households who did not consume from their gardens at all fell from 16% to 2%. The project also indicated that introduction of small livestock increased the consumption of protein at household level, in addition to raising incomes of households.

The proposed project will build on experience from nutrition interventions of the LWH project such as kitchen gardens, nutrition education and cooking demonstrations. The proposed project will scale up those interventions with added feature of introducing small-scale animal rearing. Activities will include training beneficiaries on kitchen garden construction, maintenance, and nutrition messaging. Using the model used under LWH using beneficiary's contribution, households will also be supported to have access to vegetable seeds, bio-fortified crops such as Iron fortified beans and vitamin A rich sweet potatoes, small livestock such as chickens, pigs or goats, and veterinary services. They will learn how to pair animal protein (meat, milk, and eggs) with produce from their gardens for a balanced, diverse meal

Aquaculture has been piloted in some of the dams constructed by MINAGRI. The proposed project will actively support dam aquaculture, as well as fish marketing as an income generating activity. Local marketing and consumption will be promoted to improve dietary diversity and enhance nutritional intake, especially among children. Opportunities for fish drying and processing, for example to produce fish bone meal, will be explored to add value, increase marketing options and to maximize the contribution of fish to human consumption. In addition, as dams will always have stored water, fish farming will also provide supplementary food source even during drought periods.



Component 2: Support to Marketing, Value Addition and Access to Finance: US \$ 9.3 million

The objective of this component is to develop the capacity of farmers and their organizations on stronger and sustainable agricultural value chains and expanded access to financial services. It is expected to be implemented through the following sub-components (i) post-harvest handling and infrastructures; (ii) market linkages; and (iii) rural finance.

Sub-component 2.1: Post-harvest Handling and Infrastructure

The proposed project will invest in post-harvest infrastructure such as collection points, drying and storage facilities to the benefit of those cooperatives which are not yet mature enough to be able to self-finance required infrastructure.

Production and marketing of high quality produce, respecting food-safety standards, requires hands-on technical assistance for several years, and interventions throughout the value chain. This includes drying and collection (near the fields as well as in bulk), processing, packaging and marketing. Under LWH focus was on drying and bulking at main collection points, but a need has been identified in immediate post-harvest handling such as food waste and food safety including reduction in aflatoxins. The proposed project will construct drying and collection points near farmer fields for immediate post-harvest handling. From these smaller drying/collection facilities, the produce will be transferred to existing bigger storage facilities at the cooperatives level. These larger storages will also be used to stock strategic reserves to cope up with food shortage during possible droughts. As part of its overall exit strategy, the project will continue training to cooperatives to manage these facilities to ensure their profitability and sustainability.

In addition, the project will co-invest in simple, primary processing equipment and business training of cooperatives and/or individual entrepreneurs managing the business. This will be done through grants agreements based on beneficiary contributions with cooperatives. The project will facilitate the linkages with potential investors to financing opportunities. This is expected to reduce post-harvest losses, improve quality, increase quantities and ensure value addition. It will allow farmers to add value to their produce, and find reliable market outlets, leading to significant increases in income

Sub-component 2.2: Market Linkages

The LWH project facilitated the establishment of links between farmer organizations and private entrepreneurs (buyers), provided technical assistance for quality control and certification, and facilitated the introduction of financing frameworks where farmers could receive advance payments from buyers (varieties of contract farming).

The proposed project will continue supporting the development of sustainable market links in existing and newly developed areas, by consolidating and scaling-up the efforts undertaken by LWH. The project will promote a public private partnership approach (PPPs), facilitating dialogue between farmers' organizations, unions and/or cooperatives and the private sector to establish contractual arrangements throughout the value chain. The project will facilitate farmers to obtain certification of their products to ease access to domestic and export markets. This search for market linkages will be undertaken together with farmer groups and cooperatives in a "learning by doing" fashion to empower them to become independent from external assistance also regarding this aspect of their business.

Sub-component 2.3: Rural Finance

Access to finance remains a limiting factor for farming activities in Rwanda and Government is focusing on local level institutions to ensure that farmers are served. SHGs often have savings schemes (rotating funds), however, the groups' ability to save determines, or rather limits, the scope for productive loans to individual members. Given the capital needs



for farmers to develop their businesses, LWH initiated work with Savings and Credit Cooperatives (SACCOs) to enable them to better serve the LWH beneficiaries and others in the catchment area.

To meet the growing business needs of cooperatives and farmers, the proposed project will continue to support financial literacy of farmers, business planning, and need based support of SACCOs. Linkage with other financial institutions like insurance companies will be undertaken to enhance their understanding of the agriculture sector, linkage to SACCOs and farmers' needs. This intervention will support farmers with specific needs to de-risk their investment and enable them to secure needed financial services.

The project will facilitate direct linkages between farmers who are not able to provide the co-financing immediately and SACCOs and reduce the risk of such capital by providing hands-on support to farmers and farmers' organizations in business plan development, crop selection and follow-up training.

As some challenges met by farmers to get loans are related to the risky nature of the agricultural sector as well as the knowledge of the sector by bankers, special campaigns will be organized to explain to financial institutions how to handle agricultural projects. In addition, the project will look at how to subsidize interest rate and pilot insurance schemes to promote the creation and sustainability of selected businesses.

Component 3: Irrigation Development and Infrastructure for Agricultural Development: US\$ 6.25 million

The Objective of this component is to provide the essential infrastructure and technology for small-scale irrigation, to intensify crop production in a participatory fashion, accompanying the capacity development and institutional strengthening activities of Component 1. Under this component, the project will support the Subsidized Farmers owned Small Scale Irrigation Development Program (SSIT) by subsidizing farmers to access small scale irrigation equipment in accordance with the GoR guidelines.

The proposed project will support the establishment of around 2,500 ha under small-scale irrigation through rainwater harvesting and rehabilitation of existing schemes. The project will support farmers in assessing suitable options for irrigation and crop selection on their land (including relevant land-husbandry techniques), to form groups and develop business proposals for submission to MINAGRI/RAB small scale irrigation subsidies. The project will support farmers to get access to finance through linking them with project supported SACCOs or other financial institutions. In cases of vulnerable households or youth, the project will consider co-financing the farmer contribution of their business plan. This will provide an inclusive approach to development, and ensure that agriculture is intensified in a sustainable, farmer-owned way. The project will also finance operation and maintenance for a two years' period, to enable the farmer to start reaping the financial return on their investment allowing them to make provisions for regular operation and maintenance costs.

Component 4: Project Management, Monitoring and Evaluation and Technical Assistance: US\$ 3 million (of which 1.5 million directly to FAO)

Component 4 will support all aspects of project management including: (a) management and coordination, (b) monitoring and evaluation, (c) technical assistance, and (d) a grievance redress system. The expected outcome of this component is an effective and transparent project management system. The main functions and activities will be to: (a) provide overall governance and direction to the project; (b) provide strategic, management, and operational guidance and support to project staff for achieving the PDO and expected outputs; (c) regularly monitor and analyze the overall and component specific quality and pace of implementation, ESMF compliance, budget and expenditures, and address any issues,



bottlenecks, and gaps to ensure that progress in project implementation is on track; (d) conduct a capacity needs assessment of project staff and provide requisite knowledge, management skills, exposure visits, and specific thematic/technical training in a systematic manner; (e) establish a robust monitoring and evaluation (M&E) and reporting system, including baseline surveys, a mid-term assessment, and end of project evaluation; (f) establish a clear and effective mechanism for grievance redress, including a system for receiving, recording, and addressing complaints and using them for course corrections as required; (g) strengthen project communication and knowledge management as well as document, collate, and disseminate project experiences and learning; and (h) support reviews, studies, and policy analysis that would contribute to the country's agriculture, food security, and nutrition policies and plans.

The Government of Rwanda has identified FAO as the main provider of technical assistance to the project with an allocation of US\$ 1.5 million. This component will fund technical assistance from FAO to improve project performance, to incorporate best practices and document lessons learnt. Three specific areas, (i) support to the further development of the extension services; (ii) nutrition and (iii) implementation of the farmer led small scale irrigation technologies; have been identified for FAO technical assistance based on their comparative advantage and experience in Rwanda.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project aims at delivering on improving livelihoods, food and nutrition security through increased agricultural productivity, value addition and access to markets. The project will be implemented in the RSSP and LWH sites in the districts of Gatsibo, Gicumbi, Karongi, Kayonza, Ngoma, Nyabihu, Nyamagabe, Nyanza, Rulindo and Rwamagana districts; in addition to other agricultural schemes developed under MINAGRI. The targeted implementation sites are characterized by cultivated marshlands and hillsides under intensive agriculture.

The project which proposes to build on the results of LWH & RSSP, will target existing and newly developed irrigation schemes as well their catchment areas. In addition to other activities the project aims at:

- Adopting and scaling up successful production practices such as utilization of improved seeds, integrated pest management; soil and water conservation approaches and technologies;
- Reducing post-harvest losses through increased investment in post-harvest infrastructure development;
- Doubling agricultural productivity in line with LWH and RSSP results; and
- Increasing access to irrigation through scaling up of existing farmer-led small-scale irrigation schemes

B. Borrower's Institutional Capacity for Safeguard Policies

The main project implementing entity is RAB with the oversight of MINAGRI. A preliminary safeguards capacity assessment indicates that RAB has no prior experience implementing similar projects under World Bank financing; and as such has limited safeguards capacity for project implementation. RAB currently has one Environmental Specialist taking on both roles of environmental and social safeguards oversight of all RAB implemented projects.

However, following a recent restructuring, the MINAGRI Single Project Implementation Unit (SPIU) implementing the LWH and RSSP projects has been moved to RAB. It is anticipated that the MINAGRI SPIU safeguards staff, with sufficient capacity from working on Bank projects in agriculture and roads sectors, will take on similar roles for the proposed project. At the central level MINAGRI SPIU has 5 full time staff working on environment and social safeguards, who are supported at the decentralized level by district staff.

Environmental Category: B - Partial Assessment; owing to the location specific and manageable nature of the potential



environmental impacts.

C. Environmental and Social Safeguards Specialists on the Team

George Bob Nkulanga, Social Safeguards Specialist

Emmanuel Muligirwa, Environmental Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project will support increased agricultural production; post-harvest handling infrastructure development; and scale-up of small scale irrigation schemes. These activities will potentially impact the environment. The environmental impacts will vary in scale or magnitude and will be site specific; and manage through site specific Environmental Management Plans (EMP). In the absence of sufficient information on the actual implementation sites to be selected, an Environmental and Social Management Framework (ESMF) will be prepared and consulted upon and disclosed before appraisal. The ESMF will provide guidance on environmental safeguards compliance during project implementation.
Performance Standards for Private Sector Activities OP/BP 4.03	No	
Natural Habitats OP/BP 4.04	Yes	The project targets LWH and RSSP implementation sites with activities involving agricultural intensification in marshlands and hillsides. The project proposed expansion of irrigation may potentially contribute to degradation of natural habitats such as wetlands downstream of the command areas. These risks will be assessed and managed through implementation of the ESMF
Forests OP/BP 4.36	No	The target project areas are under agricultural production. Potential impacts to forests will be assessed during EMSF preparation and addressed through site specific EMPs. The policy is not triggered.
Pest Management OP 4.09	Yes	The project aims at increasing agricultural production. This is likely to lead to increased pesticide use. a Pest Management Plan (PMP) will be prepared and implemented to promote integrated pest management.



		<p>The project plans on operating in existing LWH and RSSP sites with Bank cleared PMP. It is anticipated that team will seek clearance of the PMP, adopted to incorporate project activities if different. The basic assumption is that the RSSP PMP covers similar biophysical and social environmental, and can thus be adopted for the project.</p> <p>Timeline for PMP updating will be clarified, when the project activities are confirmed.</p>
Physical Cultural Resources OP/BP 4.11	Yes	<p>Construction works for both irrigation and postharvest handling infrastructure may lead to opportunistic finds of physical cultural resources. The ESMF will provide “Chance Finds” procedures.</p>
Indigenous Peoples OP/BP 4.10	No	<p>There are no indigenous peoples in the project targeted areas based on the screening conducted by the Bank. The policy is not triggered.</p>
Involuntary Resettlement OP/BP 4.12	Yes	<p>The project will most likely acquire more land for irrigation and postharvest handling infrastructure development.</p> <p>Since details of the actual location of project implementation sites are not known, a Resettlement Policy Framework (RPF) will be prepared and disclosed before appraisal. Wherever appropriate and required, site specific RAPs will be prepared during implementation.</p>
Safety of Dams OP/BP 4.37	Yes	<p>The project activities do not involve the construction or rehabilitation of any dams but rely on existing LWH and RSSP plans that were covered by dam safety assessments and for which dam safety plans have been reviewed and cleared by the Bank. Therefore this project will use existing dam safety plans.</p>
Projects on International Waterways OP/BP 7.50	Yes	<p>The project targeted sites under LWH and RSSP are located in tributaries of the Nile, an international river of transboundary significance. Similar to the LWH and RSSP, the project activities are likely to affect international waterways.</p> <p>The project will apply for exception to notification. The justification for an “exception” is that the project will be supporting improvements on ongoing irrigations schemes; and the estimated extractions from the Nile or Congo Basins are extremely minimal. The estimated abstraction as percentage of mean annual discharges for the Nile and Congo basin</p>



respectively are 0.155% & 0.028%. No new dams will be constructed.

Projects in Disputed Areas OP/BP 7.60

No

None of the investments or project financed activities will be located in disputed areas so this policy is not triggered.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Apr 30, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

The ESMF, PMP &RPF will be prepared, reviewed consulted upon by May 5th 2018

CONTACT POINT

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APPROVAL

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