Executive Board

President's report
Proposed loan
Republic of Rwanda
Rwanda Dairy Development Project – Phase 2

Project ID: 2000004315

Document: EB 2023/LOT/P.2

Date: 26 October 2023

Distribution: Public

Original: English

FOR: APPROVAL

Action: The Executive Board is invited to approve the recommendation contained in paragraph 55.

Technical questions:

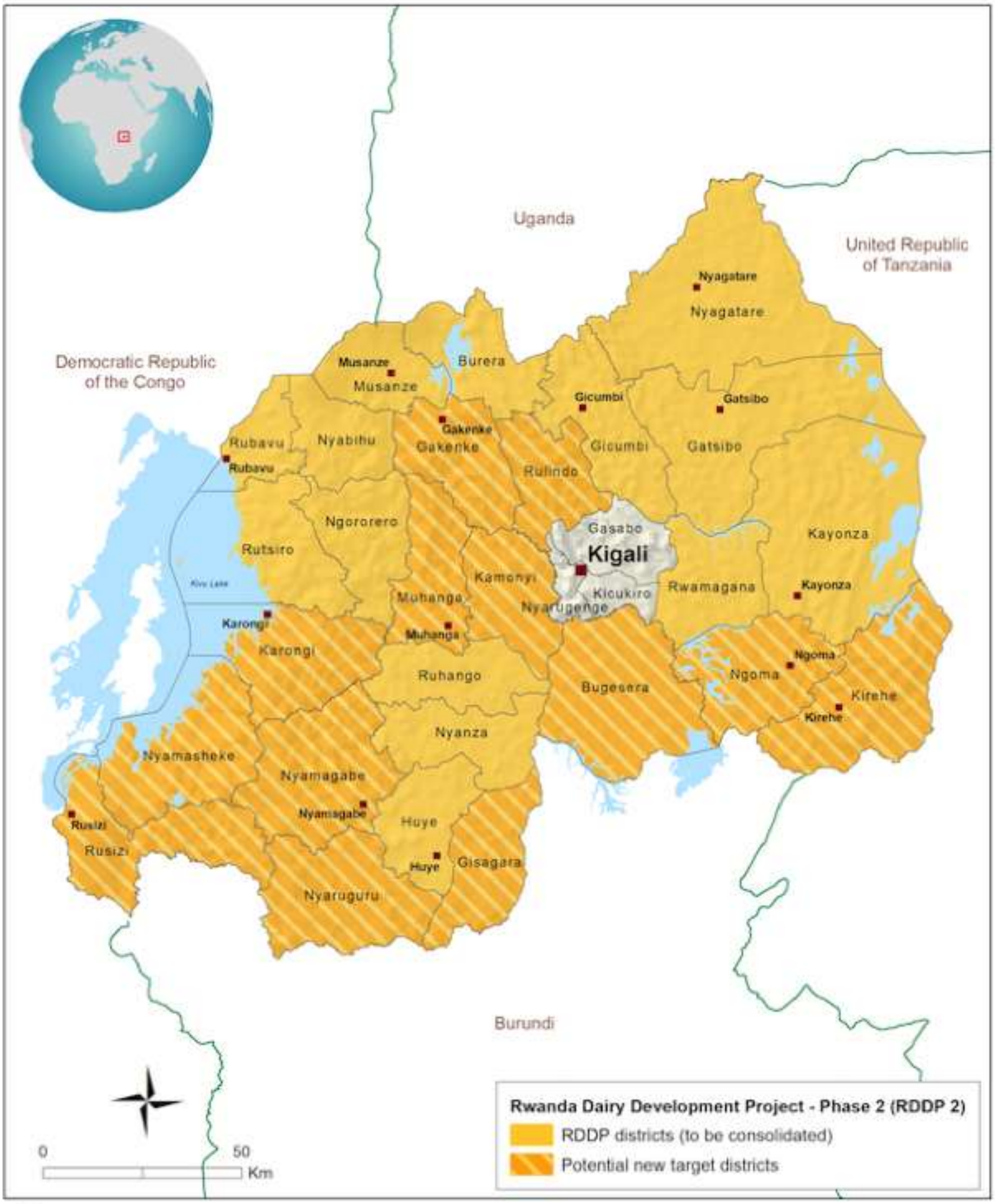
Sara Mbago-Bhunu
Regional Director
East and Southern Africa Division
e-mail: s.mbago-bhunu@ifad.org

Dagmawi Habte-Selassie
Country Director
East and Southern Africa Division
e-mail: d.habte-selassie@ifad.org

Contents

Project delivery team	
Regional Director:	Sara Mbago-Bhunu
Country Director:	Dagmawi Habte-Selassie
Technical Lead:	Nadhem Mtimet
Finance Officer:	Sengul James
Climate and Environment Specialist:	Erica Doro
Legal Officer:	Ebrima Ceesay

Map of the project area



IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 25-04-2023

Financing summary

Initiating institution:	IFAD
Borrower/recipient:	Republic of Rwanda
Executing agency:	Ministry of Agriculture and Animal Resources
Total project cost:	US$100.37 million
Amount of IFAD loan 1:	EUR 7.76 million (Equivalent to US$8.44 million)
Terms of IFAD loan 1:	Super Highly Concessional: 50 years, including a grace period of 10 years, with a service charge of 0.10 per cent per annum (adjustments for single-currency loans)
Amount of IFAD loan 2:	EUR 1.94 million (Equivalent to US$2.11 million)
Terms of IFAD loan 2:	Highly Concessional: 40 years, including a grace period of 10 years, with a service charge of 0.75 per cent per annum (adjustments for single-currency loans)
Amount of IFAD loan 3:	EUR 9.2 million (Equivalent to US$10 million)
Terms of IFAD loan 3:	Ordinary: 30 years, including a grace period of 9 years, subject to interest at a rate equal to the IFAD reference interest rate, including a variable spread
Cofinanciers:	OPEC Fund for International Development (OPEC Fund), Green Climate Fund (GCF), Equity Bank, Heifer International
Amount of cofinancing:	OPEC Fund loan: US$20 million GCF grant & loan: US$8.5 million Equity Bank loan: US$10 million Heifer International grant: US$6 million
Terms of cofinancing:	Loans; grants
Contribution of borrower/recipient:	EUR 16.24 million (Equivalent to US$17.64 million)
Contribution of beneficiaries:	US$9.52 million
Financing gap:	US$8.16 million
Amount of IFAD climate finance:	US$7.16 million
Cooperating institution:	Directly supervised by IFAD

I. Context

A. National context and rationale for IFAD involvement

National context

1. The Republic of Rwanda (henceforth Rwanda) is one of Africa's rapidly developing economies, with aspirations to attain middle-income country status by 2050. Despite global economic slowdown in recent years, Rwanda's gross domestic product (GDP) increased by 8.2 per cent in 2022, driven mainly by service sector expansion, while unfavourable climate conditions hampered the agriculture sector.

2. Rwanda's rural economy depends largely on agriculture, which contributes one-third of its GDP and employs two-thirds of the country's population. The agriculture sector is particularly affected by climate change, which could cost the country between US$50 million and US$300 million annually by 2030 if not addressed.

3. The livestock subsector in Rwanda holds significant potential to alleviate poverty and enhance the nutritional status of households. In 2021, the country produced approximately 1 billion litres of milk, 86 per cent of it marketed. Smallholder dairy farmers (owning 1 to 5 cows) supply over 80 per cent of the milk consumed domestically. Per capita milk consumption is expected to increase from 75.3 litres in 2021 to 115 litres by 2032.

Special aspects relating to IFAD's corporate mainstreaming priorities

4. In line with IFAD's mainstreaming commitments, the project has been validated as:

☒ Including climate finance;

☒ Nutrition-sensitive;

☒ Youth-sensitive;

☒ Including adaptive capacity.

5. **Climate vulnerability.** According to the [Notre Dame Global Adaptation Initiative (ND-GAIN) Matrix](), Rwanda ranks 32nd in vulnerability and 88th in climate resilience readiness. Vulnerabilities include low preparedness for climate shocks, limited water and fodder availability, poor waste management and chemical disposal facilities and a high emission intensity and carbon footprint within the dairy value chain. A climate-smart approach to dairy intensification will be adopted that involves improved breeding, animal feed and water access and increased energy efficiency along the dairy value chain.

6. **Nutrition.** The Comprehensive Food Security and Vulnerability Analysis (2022) reveals a national stunting rate of 32.4 per cent, with 24 per cent of children under 5 moderately stunted and 8.4 per cent severely stunted. Inadequate dietary intake, particularly low consumption of animal-source foods, directly contributes to malnutrition, especially among food-insecure and low-income groups. In line with the government-led nutrition initiatives, the project will offer support to nutrition education and social and behaviour change communication (SBCC).

7. **Youth involvement in the dairy sector.** Over 50 per cent of rural youth are engaged in agriculture, but a mere 5 per cent are registered as youth members of a milk collection centre (MCC). Instead, the majority engage in off-farm service activities such as milk transport. Their participation is hindered predominantly by factors that include limited land access, financial constraints and perceived unattractiveness of dairy production. The Rwanda Dairy Development Project – Phase 2 (RDDP-2) seeks to increase youth engagement by presenting opportunities for various activities.

Rationale for IFAD involvement

8. RDDP introduced new market dynamics in the dairy sector and yielded positive outcomes such as increased assets for smallholders, improved development of MCC infrastructure and milk collection points (MCPs), along with advancements in artificial insemination and disease control. Recognizing the dairy sector's pivotal role in driving rural economic transformation, the Government of Rwanda has made substantial investments aimed at boosting milk value addition.

9. Despite RDDP's positive impact on the dairy subsector and its target groups, several challenges persist, impeding full realization of the value chain's potential and sustainability. These challenges include: (i) suboptimal milk productivity levels among cows due to limited access to forage and water; (ii) low producer and cooperative capacity across value chains; (iii) poor market information and infrastructure; and (iv) low resilience to economic shocks.

10. In line with IFAD's pro-poor value chain development approach, RDDP-2 will amplify sectoral modernization by upscaling interventions, with emphasis on climate-smart practices, fostering financial access via private sector collaboration and integrating digitalization into the value chain.

B. Lessons learned

11. RDDP-2 is informed by achievements and lessons from the implementation of RDDP. The project will consolidate the impacts and scale up in new districts, with particular attention to the following aspects:

   (a) "Pass on the gift" fits the Rwandan context and allows for a scale-up of cow placement under the Girinka programme at minimal cost. Its sustainability hinges on collaboration with local authorities and implementation within livestock farmer field school (L-FFS) groups, leveraging strong social links;

   (b) Domestic fodder production falls short of demand. It is necessary to expand seed production by assisting more producers and establishing a dedicated commercial value chain to increase market access and availability for farmers;

   (c) The rehabilitation and construction of MCCs and MCPs boosted milk supply. Yet, 19 per cent of MCCs face cooling equipment problems, reducing efficiency. This is mostly due to poor management, causing 67 per cent of MCCs to lack self-sustainability and depend on external support;

   (d) Matching grants created heavy reliance on grants without fostering sustainable financing options such as credit or private sector engagement. Challenges on both the demand and supply sides have impeded inclusive financial services within the dairy value chain.

II. Project description

A. Objectives, geographical area of intervention and target groups

12. The project's goal is to reduce the poverty level of targeted rural households and mitigate the impact of the dairy sector on climate change. The project development objective is to enhance the income, nutrition and resilience of rural households through a more inclusive, sustainable, digitalized and competitive dairy sector.

13. RDDP-2 will be implemented in 27 of the 30 districts of Rwanda, divided into two groups. Category 1, which comprises 14 districts where RDDP was implemented, will leverage achievements to further transform the sector with new innovations and technologies while capitalizing on emerging market prospects. Category 2 covers 13 new districts, while the remaining three urban and peri-urban districts may be targeted for milk processing and marketing activities.

14. The project will benefit 175,000 poor and nutrition-insecure rural households, 100,000 of them from the first phase, and be the primary focus of scaled-up interventions. The additional 75,000 new households will be selected from category 1 (25,000 households) and category 2 (50,000 households). The targeting mechanisms will be guided by the national wealth-ranking system (Ubudehe), aligned with IFAD's targeting strategy. RDDP-2 will give preferential treatment to women (45 per cent) and youth (25 per cent).

B. Components, outcomes and activities

15. The project will have the following components: (i) Increasing the productivity and resilience of smallholder dairy production systems; (ii) Increasing dairy value chain efficiency through scaled-up investments and improved market access; and (iii) Policy support and project management, monitoring and evaluation (M&E), and knowledge management (KM).

16. **Component 1: Increasing the productivity and resilience of smallholder dairy production systems** will primarily target the production aspect by employing a climate-smart livestock approach. This blends efforts to boost productivity and adapt livestock to climate change while implementing measures to curtail greenhouse gas (GHG) emissions linked to livestock activities. This will be achieved through two subcomponents: one focuses on enhancing the capabilities, production assets and community organization of smallholder dairy farmers, while the other centres on improving access to services, inputs and innovations that increase the availability of quality feed and water, thus strengthening climate resilience.

17. **Component 2: Increasing dairy value chain efficiency through scaled-up investments and improved market access.** This component focuses on optimizing the operational efficiency of the dairy value chain. This entails integrating climate-smart energy systems and digital technologies to facilitate the tracing of milk transactions across the value chain, with the goal of channelling milk through formal market avenues. This component has three interconnected subcomponents: the enhancement of dairy value chain efficiency; the promotion of shorter value chains by refining milk collection and distribution through digitalized systems; and the promotion of inclusive and innovative financial access by offering tailored, accessible and sustainable financial products in partnership with financial service providers. RDDP-2 will support SBCC, nutrition awareness campaigns and the establishment of market linkages with school feeding programmes.

18. **Component 3: Policy support and project management, M&E and KM.** This will focus on policy engagement and stakeholder coordination to achieve the objective of a "strengthened policy and institutional environment for sustainable and inclusive growth of the dairy sector". Policy intervention and formulation efforts will be reinforced by robust project M&E systems and evidence-based knowledge products. RDDP-2 will facilitate stakeholder engagement in policy dialogue via national and district-level dairy platforms.

C. Theory of change

19. RDDP-2 aims to tackle challenges within the dairy value chain by optimizing production efficiency and strategic marketing enhancements. The project will begin by forming groups, building assets and improving infrastructure. This will be accompanied by trainings in climate-smart practices and capacity-building for farmer organizations. Improved animal health and breeding services, coupled with enhanced water and feed accessibility, will boost milk productivity and diminish emission intensity. RDDP-2 will also support collective marketing through productive partnerships.

20. The project will promote the integration of digital technologies, facilitating access to finance and establishing a conducive policy and institutional framework. By

promoting sustainable improvements in milk production and improved marketing practices, the project aims to sustainably increase incomes. These augmented incomes can subsequently be reinvested in sustainable production, creating a virtuous cycle that bolsters the sector’s resilience. Moreover, higher incomes and milk consumption are expected to enhance food security and nutrition through awareness campaigns and SBCC.

21. RDDP-2’s theory of change is based on the assumptions of (i) substantial adoption of improved production practices; (ii) sufficient high-quality milk supply for market needs; (iii) efficient implementation structures; (iv) capable cooperative management and good governance; and (v) adequate labour and working conditions for women and youth in the target districts.

D. Alignment, ownership and partnerships

22. RDDP-2 is well-aligned with IFAD’s Strategic Framework 2016-2025 and the Country Strategic Opportunities Programme 2018-2024. Successful implementation of RDDP-2 will contribute to achievement of the following Sustainable Development Goals: 1: No Poverty; 2: Zero Hunger; 5: Gender Equality; 8: Decent Work and Economic Growth; 13: Climate Action; and 15: Life on Land. These goals are integrated into national strategic frameworks and the United Nations Sustainable Development Cooperation Framework for Rwanda.

23. The project will broaden impacts by leveraging existing networks and synergies with key strategic partners, including specialized government agencies, local governments and other development partners. Access to finance activities will be implemented to foster links between stakeholders and financial institutions.

24. RDDP-2 will be integrated with the regional Pathways to Dairy Net Zero (PADNET) programme being prepared for GCF funding approval, expected in 2024.

E. Costs, benefits and financing

Project costs

25. The total project costs, including price and physical contingencies, are estimated at US$100.37 million over the six-year project implementation period. The overall recurrent costs are 5.55 per cent of the total project costs, and investment costs represent 94.5 per cent of the total project costs.Project components 1 and 2 are partially counted as climate finance. As per the multilateral development banks’ methodologies for tracking climate change adaptation and mitigation finance, the total amount of IFAD climate finance for this project is estimated at US$7.16 million, representing 34.8 per cent of IFAD’s total project costs.

Table 1
Project costs by component and financier
(Thousands of United States dollars)

	IFAD loan 1		*IFAD loan 2*		*IFAD loan 3*		*Equity*		*Heifer*		*OPEC Fund*		*GCF PADNET*		*Beneficiaries*			*Borrower/recipient*			*Financing gap*		*Total*
Component	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Cash*	*In kind*	*%*	*Cash*	*In kind*	*%*	*Amount*	*%*	*Amount*
1. Increasing the productivity and resilience of smallholder dairy production systems	4 750	11.4	1 187	2.9	2 607	6.3	-	-	6 000	14.5	6 330	15.3	5 417	13.1	1 617	7 699	22.5	3 671	-	8.8	2 160	5.2	41 438
2. Increasing dairy value chain efficiency through scaled-up investments and improved market access	10	-	3	-	7 393	15.3	10 000	20.7	-	-	12 670	26.2	2 658	5.5	200	-	0.4	2 888	10 785	28.2	1 803	3.7	48 410
3. Policy support and project management, M&E and KM	3 678	35.0	919	8.7	-	-	-	-	-	-	1 000	9.5	425	4.0	-	-	-	300	-	2.9	4 201	39.9	10 523
Total	**8 438**	**8.4**	**2 109**	**2.1**	**10 000**	**10.0**	**10 000**	**10.0**	**6 000**	**6.0**	**20 000**	**19.9**	**8 500**	**8.5**	**1 817**	**7 699**	**9.5**	**6 859**	**10 785**	**17.5**	**8 164**	**8.1**	**100 371**

Table 2
Project costs by expenditure category and financier
(Thousands of United States dollars)

	IFAD loan 1		*IFAD loan 2*		*IFAD loan 3*		*Equity*		*Heifer*		*OPEC Fund*		*GCF PADNET*		*Beneficiaries*			*Borrower/recipient*			*Financing gap*		*Total*
Expenditure category	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Cash*	*In kind*	*%*	*Cash*	*In kind*	*%*	*Amount*	*%*	*Amount*
Investment costs																							
1. Goods, services and inputs	2 544	6.5	636	1.7	4 585	11.8	3 824	9.8	3 481	8.9	8 375	21.5	3 228	8.3	200	6 751	17.8	3 702	38	9.6	1 584	4.1	38 948
2. Training, workshops and meetings	1 681	15.4	420	3.8	1 514	13.8	-	-	1 904	17.4	3 002	27.5	301	2.8	-	-	-	-	-	-	2 106	19.3	10 928
3. Grants and subsidies	243	26.7	60	6.6	112	12.3	-	-	-	-	-	-	384	42.1	112	-	12.3	-	-	-	-	-	911
4. Civil works	-	-			-	-	526	3.8	511	3.7	5 923	42.8	2 022	14.6	1 505	948	17.7	2 395	-	17.3	-	-	13 830
5. Vehicles	67	2.3	17	0.5	-	-	2 687	90.7	-	-	-	-	-	-	-	-	-	50	-	1.7	144	4.8	2 965
6. Equipment and materials	211	1.2	53	0.3	866	4.9	2 963	16.7	91	0.5	1 231	7.0	635	3.6	-	-	-	712	10 747	64.9	161	0.9	17 670
7. Technical assistance and consultants	1 787	18.7	447	4.8	2 923	30.6	-	-	13	0.1	469	4.9	1 505	15.8	-	-	-	-	-	-	2 397	25.1	9 541
Total investment costs	**6 533**	**6.9**	**1 633**	**1.8**	**10 000**	**10.6**	**10 000**	**10.6**	**6 000**	**6.3**	**19 000**	**20.0**	**8 075**	**8.5**	**1 817**	**7 699**	**10.0**	**6 859**	**10 785**	**18.6**	**6 392**	**6.7**	**94 793**
Recurrent costs																							
1. Salaries and allowances	1 652	34.0	413	8.5	-	-	-	-	-	-	999	20.5	29	0.6	-	-	-	-	-	-	1 771	36.4	4 864
2. Operating costs	253	35.4	63	8.9	-	-	-	-	-	-	1	0.1	396	55.5	-	-	-	-	-	-	1	0.1	714
Total recurrent costs	**1 905**	**34.2**	**476**	**8.5**	**-**	**-**	**-**	**-**	**-**	**-**	**1 000**	**17.9**	**425**	**7.6**	**-**	**-**	**-**	**-**	**-**	**-**	**1 772**	**31.8**	**5 578**
Total	**8 438**	**8.4**	**2 109**	**2.1**	**10 000**	**10.0**	**10 000**	**10.0**	**6 000**	**6.0**	**20 000**	**19.9**	**8 500**	**8.5**	**1 817**	**7 699**	**9.5**	**6 859**	**10 785**	**17.5**	**8 164**	**8.1**	**100 371**

Table 3
Project costs by component and project year (PY)
(Thousands of United States dollars)

	PY1		PY2		PY3		PY4		PY5		PY6		Total
Component	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*	*%*	*Amount*
1. Increasing the productivity and resilience of smallholder dairy production systems	5 082	12.3	8 938	21.6	8 935	21.6	6 776	16.4	6 709	16.2	4 998	12.1	41 437
2. Increasing dairy value chain efficiency through scaled-up investments and improved market access	6 032	12.5	15 917	32.9	15 318	31.6	6 743	13.9	2 514	5.2	1887	3.9	48 411
3. Policy support and project management, M&E and KM	1 745	16.6	1 347	12.8	1 679	16.0	1 887	17.9	1 859	17.7	2 005	19.1	10 522
Total	**12 859**	**12.8**	**26 202**	**26.1**	**25 932**	**25.8**	**15 406**	**15.3**	**11 082**	**11.0**	**8 890**	**8.9**	**100 371**

Financing and cofinancing strategy and plan

27. IFAD’s financial commitment totals US$20.55 million, with EUR 9.7 million (equivalent to US$10.55 million) from the IFAD12 performance-based allocation system (PBAS) and EUR 9.2 million (equivalent to US$10 million) from Borrowed Resource Access Mechanism (BRAM) resources. The OPEC Fund will cofinance US$20 million, while Equity Bank Rwanda pledges at least US$10 million and Heifer International provides a grant of US$6 million. Government cofinancing is projected at EUR 16.24 million (equivalent to US$17.64 million) through in-kind and cash contributions, while beneficiaries are anticipated to contribute US$9.52 million, with US$1.82 million in cash and US$7.70 million in kind. RDDP-2 will leverage financing from GCF PADNET with an initial US$8.5 million allocation. The financing gap of US$8.16 million may be sourced through subsequent PBAS cycles or by cofinancing identified during implementation.

Disbursement

28. The project categories include equipment and materials, goods, services and inputs, consultancies, grants and subsidies and salaries and allowances.

29. Funds will flow into two designated accounts (DA) opened in EUR at the National Bank of Rwanda (BNR) – one to receive IFAD-PBAS/BRAM loans and the other to receive GCF financing through IFAD. Similarly, RDDP-2 will maintain two project accounts in Rwandan franc (RWF) to receive the resources from the DAs. RDDP-2 will also maintain a separate operational bank account in RWF to receive the Government of Rwanda counterpart contribution.

30. RDDP-2 will receive financing from the OPEC Fund, and the borrower/recipient will enter into a separate loan agreement with the OPEC Fund. IFAD will stipulate a loan administration agreement with the OPEC Fund to act as administrator of the OPEC financing for RDDP-2, on which basis withdrawal applications will follow IFAD’s procedure/controls and be submitted through the IFAD Client Portal. IFAD will notify the adequacy of any withdrawal application submission to the OPEC Fund. OPEC will then issue the final disbursement to the borrower/recipient into a dedicated DA, opened in hard currency at BNR. The project will maintain a separate project account in RWF at a commercial bank to receive the resources from the DA to the OPEC Fund.

31. RDDP-2 will be cofinanced by Heifer International. The IFAD financing will flow from the RDDP-2 operational account into a segregated bank account opened by Heifer International Rwanda in RWF at a commercial bank. The funds will be withdrawn on a quarterly basis, upon justification of previous advances (i.e. 70 per cent) and fulfilment of the reporting requirements stipulated in the annual memorandum of understanding signed between the lead agency and Heifer.

32. Equity Bank Rwanda will participate in RDDP-2, making financial resources available directly to project beneficiaries in the form of loans. No funds will flow from Equity Bank into RDDP-2 accounts.

Summary of benefits and economic analysis

33. The project's economic rate of return is estimated at 23.10 per cent, with a net present value of US$101.12 million. A sensitivity analysis indicates that potential cost overruns would result in a moderate impact. The financial analysis, drawn from 16 financial models, demonstrates the soundness and economic viability of the project.

Exit strategy and sustainability

34. Besides strong government ownership based on the project's alignment with national strategic plans, the exit strategy revolves around sustainability-enhancing elements. These include (i) a thriving local and national dairy market; (ii) strengthened business management capabilities and governance, empowering market-oriented enterprises; (iii) private sector collaboration for digital platforms and business models; and (v) partnering with financial institutions that capitalize on value chain relationships and invest in de-risking to amplify sustainable access to financial services.

III. Risk management

A. Risks and mitigation measures

35. The overall inherent and residual risks are classified as **moderate.** The major risks and corresponding mitigation measures are presented in the Integrated Project Risk Matrix (appendix III).

Table 4
Overall risk summary

Risk areas	*Inherent risk rating*	*Residual risk rating*
Country context	Moderate	Low
Sector strategies and policies	Moderate	Low
Environment and climate context	Substantial	Moderate
Project scope	Substantial	Low
Institutional capacity for implementation and sustainability	Substantial	Moderate
Financial management	Moderate	Moderate
Project procurement	Moderate	Low
Environment, social and climate impact	Moderate	Moderate
Stakeholders	Substantial	Moderate
Overall	Moderate	Moderate

B. Environment and social category

36. The environment and social category is **substantial.** Potential risks include gender-based violence, low occupational safety standards, increased disease risks, child labour and youth unemployment. RDDP-2 will prioritize job creation, household mentoring through the Gender Action Learning System and the application of International Labour Organization guidelines for improved working conditions. The Environmental, Social and Climate Management Framework (ESCMF), Pesticide Management Plan, Stakeholder Engagement Plan (SEP) and Chance Finds Procedure have been prepared to address environmental and social issues.

C. Climate risk classification

37. The climate risk category is **moderate**. Dairy is seen as both a contributor to and victim of climate change. The sector can emit GHG through various processes and is vulnerable to shifting climate conditions, including rising temperatures and

altered rainfall patterns. These factors affect feed and water availability, animal health and, consequently, milk production and quality. To address this, climate change adaptation and mitigation strategies will be integrated along the dairy value chain and include: (i) increasing milk productivity, resulting in lower GHG emissions per cow or litre of milk; (ii) improving breeding, feed and on-farm water availability; (iii) promoting renewable energy sources; and (iv) implementing carbon accounting and low-carbon certification systems. A climate assessment literature review has been prepared.

D. Debt sustainability

38. According to the World Bank–International Monetary Fund, Rwanda's debt sustainability analysis indicates a moderate risk of external and overall public debt distress. The current debt-carrying capacity is consistent with a classification of "strong." The baseline macroeconomic scenario reflects the negative effects of the COVID-19 pandemic on growth, exports and revenues, which sharply raised external and domestic financing needs in 2020. The adverse economic impact of the pandemic, coupled with higher loans, though mostly concessional from multilateral and bilateral partners, is expected to entail a higher pace of public and publicly guaranteed debt accumulation. The stress tests highlight that Rwanda is more susceptible to external shocks than in the pre-pandemic period, even after the initial impact of COVID-19 dissipates. The Ukraine crisis has had only a moderate impact on the dairy sector due to the dominance of grass-based systems and low consumption of imported inputs such as feed, fertilizers and veterinary products.

IV. Implementation

A. Organizational framework

Project management and coordination

39. RDDP-2 will be implemented through the Single Project Implementation Unit (SPIU) under the Rwanda Agriculture Board, an affiliate of the Ministry of Agriculture and Animal Resources (MINAGRI). Project management will largely follow the implementation structures of RDDP to allow continuation of the achievements and cumulative impacts of the project. A national Project Steering Committee (PSC) will be formed under MINAGRI to provide overall supervision of project implementation.

Financial management (FM), procurement and governance

40. RDDP-2 is expected to use the FM arrangements adopted by the IFAD Rwanda portfolio, which is fully aligned with country FM systems. The budget planning process will be generated by the RDDP-2 management team and will be included every year in the borrower/recipient's fiscal budget.

41. All donor-funded project bank accounts are included in the Treasury Single Account mechanism. Therefore, funds for RDDP-2 will flow through DAs opened in BNR and managed by the SPIU. Additional instructions on disbursements will be provided in the FM Financial Control Letter.

42. Accounting and reporting will be carried out through the Integrated Financial Management Information & System. RDDP-2 accounting will follow the national regulations, which are gradually transitioning to International Public Sector Accounting Standards accrual standards. The project will submit quarterly interim financial reports within 45 days of the period end to support disbursements and enable monitoring of financial progress. Annual financial statements will be prepared and audited in accordance with relevant international standards and consistent with IFAD Handbook on Financial Reporting and Auditing.

43. The inherent FM risk at the country level is moderate. Budget execution will follow existing internal controls in alignment with government central/local procedures and IFAD requirements. The Internal Auditor hired under the SPIU will report to the

PSC. RDDP-2 will be audited by the Office of the Auditor General, as mandated under the government act/law.

44. **Procurement.** The inherent risk in RDDP-2 is assessed as ***moderate.*** RDDP-2 will comply with the Public Procurement Law and its associated regulations, which are aligned with international standards and IFAD Project Procurement Guidelines. Furthermore, IFAD’s End-to-End procurement system will be employed to mitigate the potential risks associated with inappropriate use of non-competitive methods.

Target group engagement and feedback and grievance redress

45. As part of the SEP, a mechanism will be established to facilitate the exchange of feedback with the project’s target groups. This will include methods for monitoring the effectiveness of public consultation procedures, assessing the outcomes of consultations and identifying areas that may require further engagement. RDDP-2 will consistently gather perspectives and views from its diverse target groups, ensuring accountability in the execution of the respective investments.

Grievance redress

46. The Grievance Redress Mechanism, annexed to the ESCMF, provides a framework for procedures and processes during project implementation. Existing local governance structures will be employed to address complaints and grievances. The SPIU will appoint a staff member to manage cases and maintain records for reference. Prior to any project investment that might affect the beneficiaries, a free prior and informed consent process will be undertaken.

B. Planning, monitoring and evaluation, learning, knowledge management and communications

47. The project’s M&E system will be aligned with the logical framework, and all people-centred indicators will be disaggregated by age and gender. The existing Management Information System utilized for IFAD-funded projects will be upgraded through digitalization, enabling periodic data collection, including geospatial data via mobile devices.

48. A project-specific knowledge management and communication strategy will be prepared to systematically document project lessons and establish an effective communication framework. RDDP-2 will generate evidence-based knowledge products and disseminate them to promote broader knowledge-sharing, ultimately supporting policy engagement.

Innovation and scaling-up

49. RDDP-2 will embrace a private sector-driven approach, moving away from the grant-based systems. The main objective is to ensure long-term sustainability of interventions while minimizing risks and business costs for private sector players. Additionally, full digitalization of the dairy value chain will increase efficiency by optimizing data management and market access. RDDP-2 will also consolidate successful practices piloted under RDDP for further scaling-up, including the rollout of sanitary mandates and the L-FFS model.

C. Implementation plans

Implementation readiness and start-up plans

50. RDDP-2 will build on the existing structures and capacities of RDDP, facilitating a quick and seamless start-up. During the RDDP project closing phase, key staff with satisfactory assessments will be retained to contribute to the start-up, ensuring a smooth transition from RDDP to RDDP-2. This will maintain project momentum and enable timely project implementation.

Supervision, midterm review and completion plans

51. IFAD and the Government of Rwanda will conduct joint supervision missions to assess overall progress and provide technical assistance to address prevailing

challenges. Furthermore, reviews will be conducted at midterm and project completion to gauge the project's progress towards its development objective. Particular attention will be paid to evaluating the sustainability and implementation of the exit strategy.

V. Legal instruments and authority

52. A financing agreement between the Republic of Rwanda and IFAD will constitute the legal instrument for extending the proposed financing to the borrower/recipient. A copy of the negotiated financing agreement is attached as appendix I.

53. The Republic of Rwanda is empowered under its laws to receive financing from IFAD.

54. I am satisfied that the proposed financing will comply with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

VI. Recommendation

55. I recommend that the Executive Board approve the proposed financing in terms of the following resolution:

> RESOLVED: that the Fund shall provide a loan on super highly concessional terms to the Republic of Rwanda in an amount of seven million seven hundred sixty thousand euros (EUR 7,760,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.
>
> RESOLVED FURTHER: that the Fund shall provide a loan on highly concessional terms to the Republic of Rwanda in an amount of one million nine hundred forty thousand euros (EUR 1,940,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.
>
> RESOLVED FURTHER: that the Fund shall provide a loan on ordinary terms to the Republic of Rwanda in an amount of nine million two hundred thousand euros (EUR 9,200,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein.

Alvaro Lario
President

Negotiated financing agreement

LOAN NO. ______________
LOAN NO. ______________
LOAN NO. ______________

FINANCING AGREEMENT

Rwanda Dairy Development Project – Phase 2 (RDDP-2)

between the

REPUBLIC OF RWANDA

and the

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT

Signed in Kigali, Rwanda and Rome, Italy

on ______

FINANCING AGREEMENT

Loan No: ______________
Loan No: ______________
Loan No: ______________

Project name: Rwanda Dairy Development Project – Phase 2 ("RDDP2"/ "the Project")

The Republic of Rwanda (the "Borrower")

and

The International Fund for Agricultural Development (the "Fund" or "IFAD")

(each a "Party" and both of them collectively the "Parties")

WHEREAS

A. At its 118th session held on 22 September 2016, IFAD's Executive Board (the "EB") approved the Rwanda Dairy Development Project (RDDP) and the relevant financing agreement between IFAD and the Borrower was signed on 4 November 2016, with an effective date of 19 December 2016;

B. Following a successful review of RDDP coupled with the idea to consolidate its positive impacts achieved and the need to scale up in new districts, it was determined that a second phase to RDDP was required to be implemented;

C. Consequently, the Borrower requested a loan from the Fund for the purpose of financing the Project described in Schedule 1 to this Agreement;

D. The Project is expecting to receive co-financing from the OPEC Fund for International Development, Equity Bank Rwanda, Heifer International and the Green Climate Fund.

NOW THEREFORE, the Parties hereby agree as follows:

Section A

1. The following documents collectively form this Agreement: this document, the Project Description and Implementation Arrangements (Schedule 1), the Allocation Table (Schedule 2) and the Special Covenants (Schedule 3).

2. The Fund's General Conditions for Agricultural Development Financing dated 29 April 2009, amended as of December 2022, and as may be amended hereafter from time to time (the "General Conditions") are annexed to this Agreement, and all provisions thereof shall apply to this Agreement. For the purposes of this Agreement the terms defined in the General Conditions shall have the meanings set forth therein, unless the Parties shall otherwise agree in this Agreement.

3. The Fund shall provide three Loans (the "Financing") to the Borrower, which the Borrower shall use to implement the Project in accordance with the terms and conditions of this Agreement.

Section B

1. The amount of the Loan eligible to super highly concessional terms (SHCT Loan) is seven million seven hundred sixty thousand Euros (EUR 7 760 000).

2. The amount of the Loan eligible to highly concessional terms (HCT Loan) is one million nine hundred forty thousand Euros (EUR 1 940 000).

3. The amount of the Loan eligible to ordinary terms (OT Loan) is nine million two hundred thousand Euros (EUR 9 200 000).

4. In relation to the SHCT Loan:

   (i) it shall be free of interest but shall bear a fixed service charge as determined by the Fund at the date of approval of the Loan by the Fund's Executive Board, payable semi-annually in the Loan Service Payment Currency;

   (ii) it shall have a maturity period of fifty (50) years, including a grace period of ten (10) years starting from the date of approval of the Loan by the Fund's Executive Board; and

   (iii) it will be repaid at 2.5 per cent (%) of the total principal per annum for years eleven (11) to fifty (50).

5. In relation to the HCT Loan:

   (i) it shall be free of interest but shall bear a fixed service charge as determined by the Fund at the date of approval of the Loan by the Fund's Executive Board, payable semi-annually in the Loan Service Payment Currency;

   (ii) it shall have a maturity period of forty (40) years, including a grace period of ten (10) years starting from the date of approval of the Loan by the Fund's Executive Board; and

   (iii) it will be repaid at two per cent (2%) of the total principal per annum for years eleven (11) to twenty (20), and four per cent (4%) of the total principal per annum for years twenty-one (21) to forty (40).

6. In relation to the OT Loan:

   (i) The Loan granted on ordinary terms (OT Loan) shall be subject to interest on the principal amount outstanding of the Loan at a rate equal to the IFAD Reference Interest Rate including a variable spread, payable semi-annually in the Loan Service Payment Currency, and have a maturity period of thirty (30) years, including a grace period of nine (9) years, starting from the date as of which the Fund has determined that all general conditions precedent to withdrawal have been fulfilled.

7. The Loan Service Payment Currency shall be in EUR.

8. The first day of the applicable Fiscal Year shall be 1 July.

9. Payments of principal and service charge shall be payable on each 1 April and 1 October.

10. There shall be one segregated Designated Account, denominated in EUR at the National Bank of Rwanda (NBR), to receive the proceeds of the Financing. The

Borrower shall inform the Fund of the officials authorized to operate the Designated Account.

11. There shall be one segregated Project Operational Account to receive the proceeds of the Financing from the Designated Account, for the exclusive benefit of the Project.

12. The Borrower shall provide counterpart financing for the Project, in-cash and/or in-kind, in the amount of sixteen million two hundred thirty five thousand one hundred and fifty Euros (EUR 16 235 150) mainly for taxes and duties, as well as to cover costs relating to Project activities.

13. The Borrower shall open a segregated project bank account to receive the counterpart financing from the Government of Rwanda.

Section C

1. The Lead Project Agency shall be the Rwanda Agriculture and Animal Resources Development Board, an implementing agency of the Ministry of Agriculture and Animal Resources (the "MINAGRI"), as further detailed in Schedule 1 to this present Agreement.

2. Additional Project Parties are described in Schedule 1, Section 9 of this Agreement.

3. A Mid-Term Review will be conducted as specified in Section 8.03 (b) and (c) of the General Conditions; however, the Parties may agree on a different date for the Mid-Term Review of the implementation of the Project.

4. The Project Completion Date shall be the sixth anniversary of the date of entry into force of this Agreement and the Financing Closing Date will be established as specified in the General Conditions.

5. Procurement of goods, works and services financed by the Financing shall be carried out in accordance with the provisions of the Borrower's procurement regulations, to the extent such are consistent with the IFAD Procurement Guidelines.

Section D

1. The Fund will administer the Financing and supervise the Project.

Section E

1. The following are designated as additional grounds for suspension of this Agreement:

   (a) The Project Implementation Manual (the "PIM") and/or any provision thereof, has been waived, suspended, terminated, amended or modified without the prior agreement of the Fund and the Fund, after consultation with the Borrower, has determined that it has had, or is likely to have, a material adverse effect on the Project.

   (b) The Project Manager or other key Project staff (Heads of Finance and Fiduciary Aspects, Procurement) have been removed from the Project without prior consultation with the Fund.

2. The following is designated as an additional ground for cancellation of this Agreement:

   (a) In the event that the Borrower did not request a disbursement of the Financing for a period of at least 12 months without justification.

3. The following are designated as additional (general/specific) conditions precedent to withdrawal:

(a) The IFAD no objection to the PIM shall have been obtained. The PIM shall also include project financial management and procurement arrangements.

(b) The Project Steering Committee (the "PSC") established for RDDP-2 is fully functional and will be used for the duration of the Project.

(c) The RDDP-2 Project Operation Manager and key Project staff have been appointed as indicated in Schedule 3 of this Agreement.

(d) A suitable project Accounting and Reporting System shall have been customised and implemented through the national IFMIS, and the chief accountant (Head of Finance) and Finance Specialist shall have been duly trained in its use.

(e) The complete settlement of outstanding unjustified amounts relating to previous PASP.

4. This Agreement is subject to ratification by the Borrower.

5. The following are the designated representatives and addresses to be used for any communication related to this Agreement:

For the Borrower:

The Minister of Finance and Economic Planning
Ministry of Finance and Economic Planning
12 KN 3 Avenue, P.O Box 158, Kigali
Republic of Rwanda

Email: info@minecofin.gov.rw

For the Fund:

The President
International Fund for Agricultural Development
Via Paolo di Dono 44
00142 Rome, Italy

Copy to: The Country Director, Rwanda

If applicable, the Parties accept the validity of any qualified electronic signature used for the signature of this Agreement and recognise the latter as equivalent to a hand-written signature.

This Agreement, dated _____, has been prepared in the English language in two (2) original copies, one (1) for the Fund and one (1) for the Borrower.

REPUBLIC OF RWANDA

____

Dr. Uzziel Ndagijimana
Ministry of Finance and Economic Planning

Date: ____________

INTERNATIONAL FUND FOR
AGRICULTURAL DEVELOPMENT

____
Alvaro Lario
President

Date: ______________

Schedule 1

Project Description and Implementation Arrangements

I. Project Description

1. *Target Population*. The Project shall benefit 175,000 poor and nutrition-insecure rural households of whom 100,000 from the 14 initial RDDP districts will be targeted with scaled-up interventions such as Artificial Insemination services, fodder development, water facilities, digitalization of Milk Collection Centres (MCCs), and access to finance. The additional 75,000 new households will be selected from the RDDP districts (25,000 households) and the 13 new districts (50,000 households) belonging to Ubudehe category C, D, and E. Beneficiaries will be selected among those who are currently involved in or willing to participate in dairy sector. RDDP-2 will give preferential attention to women (45 per cent) and youth (25 per cent).

2. *Project area.* RDDP-2 will be implemented in 27 of the 30 districts of Rwanda, categorized into two (2) groups *(the "Project Area")*. Category 1 will cover the 14 districts where RDDP was implemented, in which RDDP-2 will build on achievements to further enhance transformation of the sector with new innovations, technologies and take advantage of new market opportunities. Category 2 will cover 13 new districts under the following criteria: (i) high incidence of poverty, food insecurity, malnutrition; (ii) high impact of climate change; (iii) high potential for women and youth to get involved in the dairy value chain; (iv) concentration of schools and density of school children; and v) potential for dairy value chain development, including markets for dairy products. The 3 remaining urban and peri-urban Districts (Gasabo, Kicukiro and Nyarugenge) could be targeted but only for activities related to milk processing and marketing.

3. *Goal.* The goal of the Project is to reduce the poverty level of targeted rural households and mitigate the impact of the dairy sector on climate change.

4. *Objectives.* The objective of the Project is to enhance income, nutrition and resilience of rural households through a more inclusive, sustainable, digitalized and competitive dairy sector through three project outcomes: i) increased climate-smart productivity and resilience of dairy smallholder production systems; ii) increased dairy value chain efficiency investments, market access, and consumption of dairy products; and iii) strengthened policy and institutional environment for sustainable and inclusive growth of the dairy sector. Increased climate adaptation and mitigation will be considered as a transversal objective which cuts across the three project outcomes.

5. *Components*. The Project shall consist of the following Components:

5.1 **Component 1: Increasing productivity and resilience of dairy smallholder production systems** will primarily target the production aspect by employing a climate smart livestock approach. This blends efforts to increase productivity and adapting livestock to climate change, while implementing measures to curtail Green House Gas (GHG) emissions linked to livestock activities. This will be achieved through two sub-components:

5.1.1 *Sub-Component 1.1: Strengthening capacities, production assets and community organization of smallholder dairy farmers,* will build assets (Girinka) and technical capacities of smallholder farmers in the domains of animal husbandry, animal welfare, as well as in fodder production, milk hygiene, and manure management. It also intends to foster community organization through forming Livestock Farmer Field Schools (L-FFS) and Self Help Groups, enabling farmers to access financial services, markets and production support, with the potential for these groups to transition into cooperatives. These efforts are expected to boost productivity, increase household incomes, and contribute to GHG reduction.

5.1.2 *Sub-Component 1.2: Access to services, inputs and technical innovations enhancing availability of quality feed and water to strengthen climate resilience.* This sub-component will focus on improving smallholder farmers' access to essential production services that can increase productivity and strengthen their resilience to climate change. It encompasses three major activities: i) improving the availability of high-quality feed, fodder (seeds) through promoting a more market-oriented value chain and water at household and community levels; ii) enhancing delivery of animal health and breeding services (e.g. roll out of sanitary mandate, disease contingency fund, digitalized cattle registration system, etc); and iii) disseminating technical, digital, and climate-smart innovations.

5.2 **Component 2: Increasing dairy value chain efficiency, through scaled-up investments, improved market access, and consumption of dairy products.** This component focuses on optimizing the operational efficiency of the dairy value chain. This entails integrating climate-smart energy systems and digital technologies to facilitate the tracing of milk transactions across the value chain, with the goal of channelling milk through formal market avenues. This component has three interlinked sub-components:

5.2.1 *Sub-Component 2.1: Increasing the dairy value chain efficiency.* This sub-component aims to address the challenges related to the limited amount of milk marketed through formal channels and milk losses resulting from inadequate transportation and collection. It involves the promotion of shorter dairy value chains through the training and capacity building of MCCs and local dairy processors, along with the provision of processing and packaging equipment, leveraging renewable energy sources. Additionally, a digitalized monitoring system will be implemented to streamline milk production, aggregation, transportation, and marketing processes, ultimately improving the overall efficiency of the dairy value chain.

5.2.2 *Sub-Component 2.2: Promotion of inclusive and innovative access to finance,* will facilitate access to suitable, accessible and sustainable financial services (e.g. credit, savings, co-financing, leasing, insurance, and risk management tools) for all actors in the dairy sector. It employs a value chain financing approach tailored for both the demand and supply sides: i) providing trainings on business management and financial literacy; ii) promoting uptake of livestock insurance; iii) developing financial products that enhance returns and competitiveness.

5.2.3 *Sub-Component 2.3: Improving milk consumption and nutrition awareness,* will be achieved through nutrition education and 'Social and Behaviour Change Communication (SBCC)'. RDDP-2 will establish market linkages between MCCs and school feeding programme to support milk consumptions in schools. This will include facilitating marketing campaigns in collaboration with private sectors and cooperatives.

5.3 Component 3: Policy support and project management, monitoring & evaluation and knowledge management. This component will focus on policy engagement and stakeholder coordination to achieve the objective of 'strengthened policy and institutional environment for sustainable and inclusive growth of the dairy sector'. Policy intervention and formulation efforts will be reinforced by robust project M&E systems and evidence-based knowledge products. RDDP-2 will facilitate the engagement of stakeholders in policy dialogue via both national and district level dairy platforms.

II. Implementation Arrangements

6. *Lead Project Agency*. Rwanda Agriculture and Animal Resources Development Board (RAB), an implementing agency of MINAGRI, will have the overall responsibility for the coordination and execution of the Project.

7. *Project Oversight Committee*. In line with the standard practice for IFAD-funded projects in Rwanda, a Project Steering Committee (PSC) will be established for RDDP-2. The Committee will be made up of representatives of MINAGRI and other relevant Ministries, as well as representatives of the target districts, members representing the farmer organizations, local institutions from the public and private sectors participating in the Project. The Committee is due to meet at least twice yearly, once to review the draft Annual Work Plan and Budget (AWPB) and again at mid-year to review the implementation progress, chaired by the Permanent Secretary of MINAGRI, and co-chaired by the Director General of RAB.

8. *Project Management Unit*. The Project will be implemented through the Single Project Implementation Unit (SPIU) under the authority of RAB. The SPIU Coordinator will oversee and coordinate the Project implementation at both the central and district level. Additionally, a dedicated RDDP-2 management team (PMT) will be formed within SPIU, including a Project Operations Manager, technical specialists, and field coordinators. In order to ensure seamless transition from RDDP to RDDP-2 and benefits from its existing capacities and management systems, contracts for RDDP-2 will be offered to those with satisfactory performance assessments, following ToRs developed in the PIM.

9. *Implementing partners*. The Borrower will conclude the contractual arrangements with the implementing partners, including Heifer International, for the implementation of the activities as described in the Schedule 1.

10. *Monitoring and Evaluation*. In collaboration with the MINAGRI MIS Developer, the M&E system will build upon the existing MINAGRI MIS Module to integrate a mobile data collection application, enabling the digital capture of real-time field data, including geospatial data. The primary responsibility for the M&E system will rest with the M&E unit within the SPIU, and all contracts and MoUs signed by the SPIU will incorporate details regarding the data collection and reporting responsibilities of implementing partners.

11. *Knowledge Management (KM)*. A project-specific KM and Communication Strategy along with a comprehensive KM action plan will be developed by a KM specialist, and validated during the Project start-up workshop. In pursuit of the policy aspect, the KM activities will be focused on establishing effective channels for policy influence and dialogue. This will involve documenting project achievements/lessons and disseminating policy briefs to engage high-level stakeholders in the dairy sector.

12. *Project Implementation Manual*. The PDR includes a comprehensive PIM, which provides guidelines and framework for the project implementation. The PIM is a living document and lessons from experiences will be incorporated. The Borrower will review and elaborate the PIM prior to the project start-up, and any revisions to the PIM shall have to be submitted for the Fund’s approval.

Schedule 2

Allocation Table

1. *Allocation of Financing Proceeds.* (a) The Table below sets forth the Categories of Eligible Expenditures to be financed by the IFAD Loans and the allocation of the amounts to each category of the Financing and the percentages of expenditures for items to be financed in each Category:

Category	**IFAD SHC Loan (Expressed in EUR)**	**IFAD HC Loan (Expressed in EUR)**	**IFAD OT Loan (Expressed in EUR)**	**Percentage Of Expenditure (Net of Taxes, Government and Beneficiary contributions)**
I. Equipment and Materials	230 000	60 000	720 000	100%
II. Goods, Services and Inputs	2 110 000	520 000	3 800 000	100%
III. Consultancies	2 870 000	720 000	3 670 000	100%
IV. Grants and Subsidies	200 000	50 000	90 000	100%
V. Salaries and Allowances	1 570 000	390 000		100%
Unallocated	780 000	200 000	920 000	100%
TOTAL	7 760 000	1 940 000	9 200 000	

(b) The terms used in the Table above are defined as follows:

(i) For SHC & HC IFAD Loans, the category equipment and materials also include the planned expenditures for vehicles.

(ii) The category consultancies also include expenditures relating to training and workshops.

(iii) The category salaries and allowances also include operating costs.

2. *Disbursement arrangements*

(a) *Start-up Costs*. Withdrawals in respect of expenditures for start-up costs incurred before the satisfaction of the general conditions precedent to withdrawal shall not exceed an aggregate amount of EUR 200 000 (Two Hundred Thousand). Activities to be financed by Start-up Costs will require the no objection from IFAD to be considered eligible.

Schedule 3

Special Covenants

I. General Provisions

In accordance with Section 12.01(a)(xxiii) of the General Conditions, the Fund may suspend, in whole or in part, the right of the Borrower to request withdrawals from the Loan Account if the Borrower has defaulted in the performance of any covenant set forth below, and the Fund has determined that such default has had, or is likely to have, a material adverse effect on the Project:

1. Within six (6) months of entry into force of the Financing Agreement, the Project will enter into Memorandum of Understandings (MoU) with implementing partners that will structure the collaboration, define roles, responsibilities and duties with regards to implementation, financial management, accounting and reporting. The MoUs shall be shared with IFAD for No Objection.

2. *Planning, Monitoring and Evaluation*. The Borrower shall ensure that a Planning, Monitoring and Evaluation (PM&E) system shall be established within twelve (12) months from the date of entry into force of this Agreement. The PM&E system shall be updated in accordance with MINAGRI's Management Information System (MIS) as well as IFAD's Operational Results Management System (ORMS), which shall be coordinated by the SPIU with support from technical specialists recruited under the Project. In order to supplement the Project ORMS Logical Framework, a detailed operational results framework, a monitoring and evaluation (M&E) plan, and a digitalized M&E system shall be developed by the SPIU to guide M&E processes, define roles and responsibilities.

3. *Gender*. The Borrower shall ensure that the Social Inclusion Specialist appointed under RDDP-2 will contribute to the social and economic inclusion of youth, women, other vulnerable groups, and facilitate an equal opportunity to participate and benefit from the project activities.

4. *Land tenure security.* The Borrower shall ensure that the land acquisition process has already been completed and that compensation processes were consistent with international best practice and free prior and informed consent (FPIC) principles.

5. *Anticorruption Measures*. The Borrower shall comply with IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations.

6. *Sexual Harassment, Sexual Exploitation and Abuse*. The Borrower and the Project Parties shall ensure that the Project is carried out in accordance with the provisions of the IFAD Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse, as may be amended from time to time.

7. *Use of Project Vehicles and Other Equipment.* The Borrower shall ensure that:

   (a) All vehicles and other equipment procured for the Project are allocated for Project implementation, fixed asset register is maintained and the annual physical asset verification is performed;

   (b) The types of vehicles and other equipment procured under the Project are appropriate to the needs of the Project; and

   (c) All vehicles and other equipment transferred to or procured under the Project are dedicated solely to Project use.

8. *IFAD Client Portal (ICP) Contract Monitoring Tool (CMT)***.** The Borrower shall ensure that a request is sent to IFAD to access the project procurement Contract Monitoring Tool in the IFAD Client Portal (ICP). The Borrower shall ensure that all contracts, memoranda of understanding, purchase orders and related payments are registered in the Project Procurement Contract Monitoring Tool in the IFAD Client Portal (ICP) in relation to the procurement of goods, works, services, consultancy, non-consulting services, community contracts, grants and financing contracts. The Borrower shall ensure that the contract data is updated on a quarterly basis during the implementation of the Project.

9. The Key Project Personnel are: Project Operation Manager, Financial Specialist, Chief Accountant, Officer for Monitoring and Evaluation, Knowledge Management Officer, Procurement Officer, Social Inclusion and Gender Specialist, and Environment and Climate Assessment Specialist. In order to assist in the implementation of the Project, the SPIU, unless otherwise agreed with IFAD, shall employ or cause to be employed, as required, key staff whose qualifications, experience and terms of reference are satisfactory to IFAD. Key Project Personnel shall be seconded to the SPIU in the case of government officials or recruited under a consulting contract following the individual consultant selection method in the IFAD Procurement Handbook, or any equivalent selection method in the national procurement system that is acceptable to IFAD. The recruitment of Key Project Personnel is subject to IFAD’s prior review as is the dismissal of Key Project Personnel. In accordance with legal instrument implementing performance management of the Government of Rwanda, key Project Personnel are subject to annual performance evaluation and the continuation of their contract is subject to satisfactory performance. Any contract signed for Key Project Personnel shall be compliant with the national labour regulations or the ILO International Labour Standards (whichever is more stringent) in order to satisfy the conditions of IFAD’s updated SECAP. Repeated short-term contracts must be avoided, unless appropriately justified under the Project’s circumstances.

II. SECAP Provisions

1. The Borrower shall carry out the preparation, design, construction, implementation, and operation of the Project in accordance with the nine standards and other measures and requirements set forth in the Updated Social, Environmental Climate Assessment Procedures of IFAD (“SECAP 2021 Edition”), as well as with all applicable laws and regulations to the Borrower and/or the sub-national entities relating to social, environmental and climate change issues in a manner and substance satisfactory to IFAD. The Borrower shall not amend, vary or waive any provision of the SECAP 2021 Edition, unless agreed in writing by the Fund in the Financing Agreement and/or in the Management Plan(s), if any.

2. For projects presenting high or substantial social, environmental and climate risks, the Borrower shall carry out the implementation of the Project in accordance with the measures and requirements set forth in the Environmental and Social Impact Assessments (ESIAs)/Environmental, Social and Climate Management Frameworks (ESCMFs) and/or Resettlement Action Plans/Frameworks (RAPs/Fs) and Environmental, Social and Climate Management Plans (ESCMPs) for high risk projects and Abbreviated ESIAs and/or Abbreviated RAP/F and ESCMPs for substantial risk projects and Free, Prior and Informed Consent (FPIC) Plans, FPIC Implementation Plans, Indigenous Peoples Plans (IPPs), Pesticide Management Plans, Cultural Resources Management Plans and Chance Finds Plans] (the “Management Plan(s)”), as applicable, taken in accordance with SECAP requirements and updated from time to time by the Fund.

The Borrower shall not amend, vary or waive any provision of the ESCMPs and Management Plan(s), unless agreed in writing by the Fund and if the Borrower has complied with the same requirements as applicable to the original adoption of the ESCMPs and Management Plan(s).

3. The Borrower shall not, and shall cause the Executing Agency, all its contractors, its sub-contractors and suppliers not to commence implementation of any works, unless all Project affected persons have been compensated and/or resettled in accordance with the specific RAP/Abbreviated RAP, FPIC and/ or the agreed works and compensation schedule.

4. The Borrower shall cause the Lead Project Agency to comply at all times while carrying out the Project with the standards, measures and requirements set forth in the SECAP 2021 Edition and the Management Plan(s), if any.

5. The Borrower shall disclose the draft and final ESIA reports and all other relevant Management Plan(s) with Project stakeholders and interested parties in an accessible place in the Project -affected area, in a form and language understandable to Project -affected persons and other stakeholders. The disclosure will take into account any specific information needs of the community (e.g. culture, disability, literacy, mobility or gender).

6. The Borrower shall ensure or cause the Executing Agency and Implementing Agency to ensure that all bidding documents and contracts for goods, works and services contain provisions that require contractors, sub-contractors and suppliers to comply at all times in carrying out the Project with the standards, measures and requirements set forth in the SECAP 2021 Edition, ESCMPs and the Management Plan(s), if any.

7. The Borrower will ensure that a Project -level grievance mechanism is established that is easily accessible, culturally appropriate, available in local languages, and scaled to the nature of the Project's activity and its potential impacts to promptly receive and resolve concerns and complaints (e.g. compensation, relocation or livelihood restoration) related to the environmental and social performance of the Project for people who may be unduly and adversely affected or potentially harmed if the Project fails to meet the SECAP standards and related policies. The Project -level grievance mechanism needs to take into account indigenous peoples, customary laws and dispute resolution processes. Traditional or informal dispute mechanisms of affected indigenous peoples should be used to the greatest extent possible.

8. This section applies to any event which occurs in relation to serious environmental, social, health & safety (ESHS) incidents (as this term is defined below); labor issues or to adjacent populations during Project implementation that, with respect to the relevant IFAD Project:

(i) has direct or potential material adverse effect;

(ii) has substantially attracted material adverse attention of outside parties or create material adverse national press/media reports; or

(iii) gives rise to material potential liabilities.

In the occurrence of such event, the Borrower shall:

- Notify IFAD promptly;
- Provide information on such risks, impacts and accidents;
- Consult with Project -affected parties on how to mitigate the risks and impacts;
- Carry out, as appropriate, additional assessments and stakeholders' engagements in accordance with the SECAP requirements; and
- Adjust, as appropriate, the Project-level grievance mechanism according to the SECAP requirements; and

- Propose changes, including corrective measures to the Management Plan(s) (if any), in accordance with the findings of such assessment and consultations, for approval by IFAD.

Serious ESHS incident means serious incident, accident, complaint with respect to environmental, social (including labor and community), health and safety (ESHS) issues that occur in loan or within the Borrower/Recipient's activities. Serious ESHS incidents can comprise incidents of (i) environmental; (ii) occupational; or (iii) public health and safety; or (iv) social nature as well as material complaints and grievances addressed to the Borrower (e.g. any explosion, spill or workplace accident which results in death, serious or multiple injuries or material environmental contamination, accidents of members of the public/local communities, resulting in death or serious or multiple injuries, sexual harassment and -violence involving Project workforce or in relation to severe threats to public health and safety, inadequate resettlement compensation, disturbances of natural ecosystems, discriminatory practices in stakeholder consultation and engagement (including the right of indigenous peoples to free, prior and informed consent), any allegation that require intervention by the police/other law enforcement authorities, such as loss of life, sexual violence or child abuse, which (i) have, or are likely to have a material adverse effect; or (ii) have attracted or are likely to arouse substantial adverse attention of outside parties or (iii) to create substantial adverse media/press reports; or (iv) give, or are likely to give rise to material potential liabilities).

9. The Borrower shall ensure or cause the Executing Agency, Implementing Agency, contractors, sub-contractors and suppliers to ensure that the relevant processes set out in the SECAP 2021 Edition as well as in the ESCMPs and Management Plan(s) (if any) are respected.

10. Without limitation on its other reporting obligations under this Agreement, the Borrower shall provide the Fund with:

- Reports on the status of compliance with the standards, measures and requirements set forth in the SECAP 2021 Edition, ESCMPs and the management plan (if any) on a semi-annual basis - or such other frequency as may be agreed with the Fund;
- Reports of any social, environmental, health and safety incidents and/accidents occurring during the design stage, the implementation of the Project and propose remedial measures. The Borrower will disclose relevant information from such reports to affected persons promptly upon submission of the said reports; and
- Reports of any breach of compliance with the standards, measures and requirements set forth in the SECAP 2021 Edition and the Management Plan(s) (if any) promptly after becoming aware of such a breach.

11. The Borrower shall fully cooperate with the Fund concerning supervision missions, midterm reviews, field visits, audits and follow-up visits to be undertaken in accordance with the requirements of SECAP 2021 Edition and the Management Plan(s) (if any) as the Fund considers appropriate depending on the scale, nature and risks of the Project.

12. In the event of a contradiction/conflict between the Management Plan(s), if any and the Financing Agreement, the Financing Agreement shall prevail.

Logical framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	**1. Persons receiving services promoted or supported by the project**				Project M&E system	Annually	SPIU	Maintained existing RDDP beneficiaries and identification of new RDDP-2 beneficiaries in the new target districts.
	Males – *Males*	0	78 750	96 250				
	Females – *Females*	0	43 750	78 750				
	Young - *Young people*	0	26 500	43 750				
	Total number of persons receiving services - *Number*	0	122 500	175 000				
	1.b Estimated corresponding total number of households members				Project M&E system	Annually	SPIU	
	Household members - *Number of people*	0	490 000	700 000				
	1.a Corresponding number of households reached				Project M&E system	Annually	SPIU	
	Households - *Households*	0	122 500	175 000				
Project Goal Reduce poverty level of targeted rural households and mitigate impact of the dairy sector on climate change	**Households reporting an increase in income**				Project M&E system	Baseline, Mid-term, Completion	SPIU	Direct beneficiaries are reporting an increase in income and are able to attribute it to project interventions
	Households – *Number*	0	52 500	140 000				
	Total persons - *Percentage (%)*	0	30	80				
	Reduction in emission intensity (kg CO2e/kg protein)				FAO GLEAM-i Report	Ex-Ante, Ex-Post	FAO, IFAD	Project beneficiaries will be adopting the use of technologies and practices that avoid/sequester carbon emissions
	Milk emission intensity - *% change*	0	-	-30				
	Meat emission intensity - *% change*	0	-	-13				
Development Objective Enhance income, nutrition and resilience of rural households through a more inclusive, sustainable, digitalized and competitive dairy sector	**1.2.8 Women reporting minimum dietary diversity (MDDW)**				COI Survey	Baseline, Mid-term, Completion	SPIU	Project will adequately increase capacity of beneficiary groups to i) report improved MDDW scores; ii) meet the needs of rural livelihood; iii) to influence decision-making process. Demand for dairy products continues and market linkages are established.
	Women – *Percentage (%)*	0	35	45				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers							
	Households – *Percentage (%)*	-	20	60				
	2.2.2 Supported rural enterprises reporting an increase in profit							
	Number of enterprises - *Enterprises*	0	320	640				
Outcome 1 Increased productivity and resilience of dairy smallholder production systems	**2.2.1 Persons with new jobs/employment opportunities**				COI Survey	Baseline, Mid-term, Completion	SPIU	Interventions are effectively designed and implemented to provide the necessary resources, training and support to increase productivity. Transformation of the dairy sector will lead to job creation.
	Total number of persons with new job/employment opportunities - *Number of people*	0	1 396	3 491				
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices							
	Households – *Percentage (%)*	-	22	51				
	1.2.4 Households reporting an increase in production							
	Households - *Percentage (%)*	-	45	75				
Output 1.1 Enhanced capacities, production assets and community organization of smallholder dairy farmers	**1.1.4 Persons trained in production practices and/or technologies**				Project M&E system	Annually	SPIU	Effective trainings, as well as access to renewable energy sources, land-use practices are provided to the beneficiaries, which will help reducing carbon emissions and secure carbon sequestration.
	Total persons trained in livestock - *Number of people*	0	73 800	92 250				
	3.1.3 Persons accessing technologies that sequester carbon or reduce greenhouse gas emissions							
	Total persons accessing technologies – *Number*	0	63 000	90 000				
Output 1.2 Enhanced availability of quality feed, water for livestock, delivery	**1.1.3 Rural producers accessing production inputs and/or technological packages**				Project M&E system	Annually	SPIU	Timely provision of production inputs and technological packages to the beneficiaries; Water facilities for livestock
	Total rural producers – *Number of people*	0	73 080	104 400				
	Households reporting farm access to new livestock water facilities constructed/rehabilitated							

of public and private services in the animal health and breeding	Total households - *Number*	0	17 120	21 400				are available and conditioned by a clear assessment of management capacities.
Outcome 2 Increased dairy value chain efficiency, investments, market access, and consumption of dairy products	**2.2.6 Households reporting improved physical access to markets, processing and storage facilities**				COI Survey	Annually	SPIU	Construction and rehabilitation of market, processing facilities have considered the accessibility of beneficiaries and the facilities are well maintained ensuring the benefits of enhanced access are sustained over the long term.
	Households reporting improved physical access to markets, processing facilities - *Percentage (%)*	-	34	60				
	Households reporting improved physical access to storage facilities - *Percentage (%)*	-	21	38				
	1.2.5 Households reporting using rural financial services				COI Survey	Baseline, Mid-term, Completion	SPIU	Households are using the affordable financial products and services facilitated by the project investing in a productive or IGA; Contractual arrangements will include upstream and downstream.
	Households - *Percentage (%)*	-	24	48				
	2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities							
	Percentage of POs - *Percentage (%)*	-	60	70				
Output 2.1 Strengthened capacity of dairy cooperatives and farmers in governance and business management, and financial literacy	**2.1.1 Rural enterprises accessing business development services**				Project M&E system	Annually	SPIU	Milk collectors, SMMEs and MCCs targeted are interested in BDS, participated enterprises will increase their knowledge in business and financial management.
	Rural enterprises - *Enterprises*	0	1 040	1 066				
Output 2.2 Reinforced and strengthened structures and mechanisms for collection, aggregation transportation, cold storage and distribution of dairy products	**2.1.6 Market, processing or storage facilities constructed or rehabilitated**				Project M&E system	Annually	SPIU	Market facilities (MCCs), processing facilities (SMMEs) and storage facilities (MCPs) that have been fully constructed or rehabilitated by the project during the considered period will be fully implemented.
	Total number of facilities - *Facilities*	0	139	164				
	Market facilities constructed/rehabilitated – *Facilities*	0	41	55				
	Processing facilities constructed/rehabilitated – *Facilities*	0	7	11				
	Storage facilities constructed/rehabilitated - *Facilities*	0	91	98				
Output 2.3 Digitalized systems for monitoring milk production, aggregation, transportation, and marketing developed	**Number of MCCs equipped with digitalized milk transaction management system**				Project M&E system	Annually	SPIU	MCCs have access to electricity/power and the manual milk in registers are replaced with digitalized systems, fully functioned to monitor, aggregate, transport and market milk production
	MCCs - *Number*	0	61	95				
Output 2.4 Tailored financial products and services, including climate finance and insurance developed for dairy VCA	**1.1.5 Persons in rural areas accessing financial services**				Project M&E system	Annually	SPIU	Cost of accessing finance remains affordable for small producers and other value chain stakeholders; No extremely negative price fluctuation in the market.
	Total persons accessing financial services – savings, credit - *Number of people*	0	42 586	85 173				
	Total persons accessing financial services - insurance - *Number of people*	0	42 586	85 173				
Output 2.5 Milk consumption and nutrition awareness improved	**1.1.8 Households provided with targeted support to improve their nutrition**				Project M&E system	Annually	SPIU	Nutrition-sensitive activities are targeted, tailored to address the root cause.
	Household members benefitted - *Number of people*	0	147 000	280 000				
Outcome 3 Strengthened policy and institutional environment for sustainable and inclusive growth of the dairy sector	**Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment**				KM Survey at midline and endline	Mid-term, Completion	SPIU	Policy analyses, research papers, working papers, studies, strategies, by-laws or other policy-related material will be produced by the Project team (with data evidence from M&E and KM activities) as part of the Project's policy goals.
	Number - *Number*	0	1	2				
Output 3.1 Formulation and review of national policies, strategies and legislations supported	**Policy 1 Policy-relevant knowledge products completed**				Project M&E system	Annually	SPIU	
	Number - *Knowledge Products*	0	2	4				

Integrated project risk matrix

Risk categories and subcategories	Inherent	Residual
Country context	**Moderate**	**Low**
Political commitment	**Substantial**	**Moderate**
Risk(s): The long-standing political stability of Rwanda, together with good governance and policy consistency has ensured successful delivery of IFAD development programmes and projects. With increasing demands for national milk production (i.e. new milk powder plant), the project is highly expected by the Government. GoR has already demonstrated strong commitment in co-financing RDDP-2 and mobilizing potential additional co-financiers (Equity Bank Rwanda, Heifer International, etc.). Despite these efforts, however, a financing gap of 8.1% of the total project cost still remains. Recent supervision missions have observed the Government's contribution to the IFAD-funded projects has been either lacking or delayed primarily caused by the Government's varied priorities.		
Mitigations: To mitigate the risk of the RDDP-2 Financing Agreement not being signed, the relevant counterpart government officials have been actively engaged since the very beginning of the design process and will continue to be throughout the design of the project. The IFAD team will continue to work closely with the GoR during the next phase of the project design, to ensure GoR ownership and alignment with IFAD's and Government's policies, and its mobilization for identifying potential additional co-financiers. The Government of Rwanda (GoR) has provided assurance to the PDT that they will persist in seeking partnerships to secure the required resources and fill the financing gap. If, by any chance, funding remains inadequate during the mid-term review, the option of utilizing IFAD13 PBAS resources will be evaluated. With the support of IFAD (FMD), joint action plan has been developed to improve the timely commitment of the Government's contribution. This includes the newly developed system (IFMIS) launching to monitor and record of the counterpart funding.		
Governance	**Moderate**	**Low**
Risk(s): In 2021, the Transparency International's Country Corruption Perception Index assessed Rwanda at a moderate level of risk in terms of corruption (53 points in 2021, showing a decrease of 1 point compared to 2020), which places the country in 52nd position out of 180 countries. The World Bank 2021 Country Policy and Institutional Assessment (CPIA) rates Rwanda as good policy reformer with a score of 4.1 (no change compared to previous year). The country shows weaknesses in the Public Sector Management and Institutions (Policies & Institutions for Environment Sustainability, Quality of Public Administration and Transparency scored 3).		
Mitigations: Efforts have been enhanced by the GoR to prevent corruption through the identification and reduction of vulnerability to corruption. The National Council to fight against Corruption and Injustice and Corruption Advisory Councils at national, district, sector, and cell levels have been established to strengthen the efforts to prevent corruption. Since 2000, Rwanda has adopted the National Decentralization Policy which promotes good governance, reduction of poverty as well as efficient, effective, and accountable service delivery. In order to improve the Governance of the dairy sector, one of the focus areas of RDDP-2 will be support in the update, upgrade and finalization of dairy-related national policies, strategies and legislations, the regulatory framework for the livestock sector (under finalization and adoption), and to further strengthen the stakeholder organization through further strengthening of the Rwanda National Dairy Platform,		

Risk categories and subcategories	Inherent	Residual
and involvement of raw milk traders in the platforms organs and activities.		
Macroeconomic	**Moderate**	**Low**
Risk(s): The WB/IMF assessment of Rwanda's debt sustainability analysis indicates a moderate risk of external and overall public debt distress. The current debt-carrying capacity is consistent with a classification of 'strong'. The baseline macroeconomic scenario reflects the negative effect of the COVID-19 pandemic on growth, exports, and revenues, which sharply raises external and domestic financing needs in 2020. The adverse economic impact of the pandemic, coupled with higher loans, though mostly concessional from multilateral and bilateral partners, is expected to entail a higher pace of accumulation of public and publicly guaranteed debt. The stress tests highlight that Rwanda is more susceptible to external shocks compared to the pre-pandemic period even after the initial impact of the COVID-19 dissipates. The Ukraine crisis had a moderate impact on the dairy sector, compared to other agricultural and livestock value chains, due to the dominance of grass-based systems and low consumption of imported inputs such as feed, fertilizers, and veterinary products.		
Mitigations: Rwanda aspires to achieving Middle Income Country status by 2035 and High-Income Country status by 2050. It plans to achieve this through a series of seven-year National Strategies for Transformation (NST1), underpinned by sectoral strategies focused on meeting the UN's Sustainable Development Goals. However, there is need for specific reforms to revenue policy and administration, public expenditures, and debt management to ensure adequate space to increase priority social spending and productive investment without jeopardizing fiscal sustainability, to mitigate the country's macroeconomic risks. RDDP-2 will involve private sectors in establishing sustainable financing mechanism which will help to sustain high investment rates and accelerate the economic growth.		
Fragility and security	**Moderate**	**Low**
Risk(s): Rwanda has maintained its political stability since the 1994 genocide. The political and social unrest remains unlikely with the Presidential election scheduled in 2024 given strong government authority and weak opposition. Regionally, while relations with Burundi and Uganda have normalized, tensions have risen with neighbouring DRC in 2022. While the long-term impact of the Ukraine war is still unknown, the rise in the cost of electricity, seeds and fodder has already affected the country and may continue in the next few years. In addition, intensity of extreme events such as floods and droughts have increased. The impact of climate change (CC) is evident in the longer dry season, resulting in a lack of water (for both human and animals) and fodder availability have had adverse impact on milk production.		
Mitigations: A strong targeting strategy will be designed to ensure that the livelihoods of the most disadvantaged rural categories including smallholder dairy farmers, poor households without cows, unemployed youth, women and women-headed households will be strengthened. Special emphasis will be provided to households that have people with disabilities, small children, adolescent girls, pregnant and lactating women. RDDP-2 will enhance the capacities of farmers and available technologies/inputs (silage bags, hangars for hay, baler machines, utilisation of drought-resistant varieties) for fodder harvesting, conservation to respond to the impact of CC. RDDP-2 will support enhancing availability of water for livestock at household and community		

Risk categories and subcategories	Inherent	Residual
levels through construction of small-scale individual water harvesting system, dam sheets, solar-powered boreholes, etc.		
Sector strategies and policies	**Moderate**	**Low**
Policy alignment	**Low**	**Low**
Risk(s): The policy environment surrounding RDDP-2 is relatively favourable as laws and strategies in place are fully supportive of the development of the dairy sector. The project is fully aligned with continued efforts of the country's increased agricultural productivity as well as the livestock investment and production outlined in National Strategy for Transformation (NST1). The Strategic Plan for Agriculture Transformation 2018-24 (PSTA4) will also offer a conducive framework for the implementation of RDDP-2. PSTA4 identify dairy as the first "high impact commodity", and RDDP-2 will be aligned with the 4 Impact Areas (IA): (i) to IA 1 "Increased contribution to wealth creation" and IA 2 "Economic opportunities and prosperity - jobs and poverty alleviation" through support to production and productivity, assets building, value chain efficiency improvements, and job creation in services and post-harvest; (ii) to IA 3. "Improved food security and nutrition" through improved availability of dairy products and nutrition awareness; and (iii) to IA 4 "Increased resilience and sustainability" through support to climate adaptation and support to community and private sector based sustainable management systems. The main policy framework relevant to the dairy sector is the Livestock Master Plan. The current LMP (2017-22) expired at the end of 2022 and needs to be updated. This review will be supported jointly by PRISM and RDDP in 2022/23. The support provided by the two IFAD supported livestock development projects should ensure an adequate participation of the IFAD target groups, and that the final policy framework is fully supportive of an inclusive and pro-smallholder development of the dairy value chain. There is therefore no risk of non-alignment between RDDP-2 strategy and the new LMP. The revised LMP will be adopted before the project start-up and there is therefore also a very limited risk of policy vacuum. The other important regulatory framework is the "Animal health and Production Law", and all its related Ministerial Orders and Ministerial Instructions, which have been developed during the last two years, also with the support of RDDP. The ambition of this law is to consolidate under a unique umbrella, all the regulations and policies related to livestock, and to ensure their alignment with the LMP. RDDP facilitated the formulation of this law through support to consultations with stakeholders and provision of expertise for drafting some specific regulations, in particular those related to the status of private veterinary practitioners. The adoption of this Law will thus provide a conducive framework for the implementation of activities related to reforms of the veterinary sector, support to private veterinarians and roll out of the sanitary mandate. However, this Law was submitted for adoption about one year ago and has not been adopted yet. There is therefore a limited risk of having no legal framework in place for promotion of the sanitary mandate under RDDP-2.		
Mitigations: In case the animal health and production Law and its Ministerial Orders on Sanitary Mandate are not adopted at project start, the project will have to (i) postpone the implementation of activities supporting the roll out of the sanitary mandate ; (ii) ensure active lobbying and advocacy for its adoption through participation of IFAD in the Agricultural Sector working group, active participation of RDDP-2 and stakeholders in the Dairy Working Group, and support to Rwanda Council of Veterinary Doctors to ensure adequate lobbying by the veterinary profession.		

Risk categories and subcategories	Inherent	Residual
In addition, the project will advocate for reinforcement of dairy and milk quality and safety measurements by engaging different stakeholders, including the private sectors entities supporting and or involved in dairy.		
Policy development & implementation	**Moderate**	**Moderate**
Risk(s): RDDP has been able to facilitate policy processes by supporting stakeholder consultation and make them more inclusive but has failed to influence policy content and directions. This was mostly due to the lack of qualified and experienced staff in the policy domain in the SPIU. There is therefore a likelihood for these risks to occur again under RDDP-2 and appropriate mitigation measures need to be taken.		
Mitigations: The project will be actively involved in development of sector policies through a set of activities under component 3 that include production of policy notes, support to drafting of new policies, support to participation of stakeholders (Rwanda Council of Veterinary Doctors, Rwanda National Dairy Platforms) in policy consultations, which will mitigate the risk of non-inclusiveness of policy dialogue process. The main residual risk which is the slow or non-adoption of policy and regulatory framework developed by the project will be mitigated by: (i) active participation of IFAD in the Agricultural Sector working group, which gathers MINAGRI and development partners; (ii) active participation of RDDP-2 and stakeholders in the Dairy Working Group; and (iii) continuous support to Rwanda National Dairy Platform and Rwanda Council of veterinary Doctors to improve their lobbying capacities to influence policy processes.		
Environment and climate context	**Substantial**	**Moderate**
Project vulnerability to environmental conditions	**Substantial**	**Moderate**
Risk(s): The key environmental and climate change issues that are pertaining to the project scope include: environmental and biodiversity degradation, increased use of pesticides and fertilizers, pollution risks associated with the intensification of dairy production and lack of appropriate waste management, significant water extraction or containment, and consumption of raw materials.		
Mitigations: RDDP-2 will include measures to improve resource and energy use efficiency and will promote manure application, waste management and recycling. Improving pasture productivity and quality, by enhancing the composition of forage varieties and better pasture management, coupled with the installation of proper waste management facilities and the promotion of low carbon sources of energy for chopping, milling, cooling and processing, represent important means to improve both food security and natural resources management and mitigate environmental risks.		
Project vulnerability to climate change impacts	**Substantial**	**Moderate**
Risk(s): Dairy farming is perceived as both contributor to and victim of climate change. On the one hand, the sector may contribute to GHG emissions, associated with land use, from dairy cows or from processing and transportation, or with enteric fermentation. The dairy cattle sector annually emits about 1.214 million tonnes (Mt) CO_2-eq. in Rwanda and the GHG profile of milk is dominated by methane (CH_4) by 75%. On the other hand, dairy farming is highly vulnerable to climate change and variability, mainly through increased temperatures and alterations in rainfall patterns. These factors influence feed and water availability, as well as animal health, and consequently milk production and quality. In particular, Rwanda is at risk to numerous natural hazards, including droughts, floods, earthquakes, landslides, storms, wildfire, diseases, and epidemics. These events have had significant impacts on the lives and livelihoods of Rwandans, resulting in human casualties, economic and environmental losses, and food insecurity. The high vulnerability score		

Risk categories and subcategories	Inherent	Residual
and high readiness score of Rwanda places it in the upper-right quadrant of the ND-GAIN Matrix, meaning that, although the country is on the road to responding effectively to climate change, the adaptation needs and urgency to act are greater.		
Mitigations: Although the Project's outputs and outcomes will be impacted by climate variability and change, climate change adaptation and mitigation strategies will be integrated along the dairy value chain, including: (i) increasing milk productivity, resulting in lower GHG emissions per cow or per litre of milk produced; (ii) measures to improve breeding, animal feed and on-farm water accessibility; (iii) promotion of renewable energy sources along the dairy value chain; (iv) introduction of carbon accounting and tracing schemes as well as low carbon certification. These measures will have an impact on both climate change adaptation and on climate change mitigation, by reducing both direct and indirect GHG emissions.		
Project scope	**Substantial**	**Low**
Project relevance	**Substantial**	**Moderate**
Risk(s): The main risk related to project relevance is the volatility of the value chain context. Depending on export opportunities (subject to geopolitical conditions), climatic conditions, major investments in the value chains, the demand/supply balance can change rapidly, and this will require timely adaptation of project support strategy. The other risk is related to targeting of producers: GoR is now prioritizing the development of a dairy basin in the Eastern Region, in order to supply a new dairy plant being constructed in Nyagatare, that will require large quantities of milk. However, farmers in this area include smallholder producers, but also many larger scale cattle keepers, often pluri-active, that cannot be considered as IFAD core target group. However, the project should recognize that this category of producers plays a critical role in the value chain dynamics.		
Mitigations: Under RDDP, the project has been able to adjust its strategy according to the changes in value chain context. This has required adaptation measures, for instance reducing the share of investments on production, and increasing those on processing and marketing. A constant monitoring of the supply/demand balance will need to be performed to anticipate these changes and adjust investments accordingly. Supervision missions will need to be attentive to this aspect and reactive enough to propose adjustments when needed (as it has been the case at MTR of RDDP). Whilst recognizing the critical role played by the large-scale farmers in the value chain dynamic, appropriate balance will be used between targeting medium scale market-oriented farmers, mostly indirectly through productive alliances, facilitation of access to finance and markets, and support to smallholder who may receive more substantial support including for production assets, collective investments in aggregation, and capacity building.		
Technical soundness	**Substantial**	**Moderate**
Risk(s): One of the main challenges at sector and production levels is the insufficient availability of quality milk. The high market demand for milk (both domestic and from neighbouring countries) may discourage the consumption of milk at HH level, increasing malnutrition and stunting. These issues may reduce the investment capacity of the target beneficiaries and increase their vulnerability to poverty.		
Mitigations: Besides the provision of the milk cooler equipment, to increase the availability of quality milk the project will facilitate the following: The L-FFS will put emphasis on milk quality and hygiene at farm level, including milking hygiene and control of mastitis, as this has important		

Risk categories and subcategories	Inherent	Residual
implications for productivity (mastitis) and for the rest of the value chain including on food safety Trainings on milk quality will be given at MCC/MCP level Equipment of tools for milk quality check will be provided at MCC/MCP level. A digital advisory services module will be linked to the farm management module that will allow tracking the quantity and quality of milk produced, thereby enabling any follow-up to improve production practices. A digital animal passport will be integrated to support reproductive management and enhance and monitor reproduction parameters, such as AI, as well as health management including vaccinations. Milk transporters will be given simple equipment such as alcohol milk testers and lactodensimeters to check the quality of the milk, as well as milk cans. The consumption of milk will be encouraged through nutrition awareness campaigns and nutritional education at household and community levels.		
Institutional capacity for implementation and sustainability	**Substantial**	**Moderate**
Implementation arrangements	**Substantial**	**Moderate**
Risk(s): The increasing number of projects (4 projects will be operating as of RDDP-2 start-up) in the portfolio of the Single Project Implementation Unit (SPIU) for IFAD-funded projects may hinder the Unit's availability to properly focus on all activities across the different projects. However, RDDP-2 will replace RDDP, thus not contributing to further increase the number of ongoing projects, and will benefit from its existing capacities, management systems, and staff. Limited technical capacity, governance and institutional capacities of project stakeholders can lead to slow disbursement, lower project benefits as well as delays in implementation.		
Mitigations: The ongoing RDDP project team will be strengthened with the inclusion of several key experts to be recruited such as Dairy VC Specialists, Access to Finance Specialist, Monitoring and Evaluation Specialist, Youth/Gender and Social Inclusion Specialist, Nutrition Specialist, Knowledge Management & Communication Specialist, Procurement Officer reporting to Sr. Procurement Officer of SPIU for IFAD-funded projects). With RDDP phases out, RDDP-2 will benefit from already existing well-rounded project team and the burden will be mitigated through IFAD portfolio consolidation plan in the next PBAS cycle. The PDT will ensure that all the necessary TORs are included in the PIM for smooth project implementation.		
M&E arrangements	**Substantial**	**Moderate**
Risk(s): The SPIU is yet to adopt and operationalize project specific M&E plans as operational and 'living' document to guide monitoring and adjustments to casual pathways of the Theory of Change if the need is identified during implementation lessons and results on the ground. Additionally, the SPIU is yet to adopt more efficient and standardized data collection tools at the field level. The residual risk is that if the upgrading of MIS is developed in later stages of implementation due to other factors, it will affect data reporting.		
Mitigations: The SPIU and RDDP M&E-MIS Team can leverage the time remaining in the current RDDP Project to develop a thorough M&E Plan for RDDP using the guidelines provided in the PIM. This will ensure that an M&E Plan is available and will be improved, revised and validated during the Project Start-Up Workshop. The RDDP-2 M&E budget has provided adequate allocation to upgrade the IFAD reporting Module that integrated the current MINAGRI Management Information System with mobile-based and more efficient standardized data collection tools. In addition, the SPIU has the		

Risk categories and subcategories	Inherent	Residual
opportunity to closely collaborate with the MINAGRI MIS Developer of the System for this enhancement. This will ensure a timely upgrade and closer training of RDDP Team to adopt the use of system.		
Procurement	**Moderate**	**Low**
Legal and regulatory framework	**Low**	**Low**
Risk(s): According to the PEFA assessment of 2017, procurement entities did not fully comply with the dimension of "public access to procurement information". Only 3 of the 6 criteria were met. Three criteria were not met because: (i) there was insufficient information on contract awards, (ii) there was no data on resolution of procurement complaints, and (iii) annual procurement statistics was insufficient.		
Mitigations: Rwanda introduced an 'e-procurement' system in 2018 and all IFAD projects within the SPIU are registered on it. All procurement data pertaining to a contract is now available to all users online. It also becomes easier for Rwanda Public Procurement Agency (RPPA) to compile annual procurement statistics for procurement entities. Since by Law all procurement entities are mandated to use the e-procurement system, RDDP-2 will also be registered, and such issues as observed by PEFA of 2017 will be mitigated.		
Accountability and transparency	**Moderate**	**Low**
Risk(s): The latest Corruption Perception Index by Transparency international is for the calendar year 2021, and it provided an overall inherent risk rating bracket of medium risk. Rwanda was ranked 52/180 in the world with a score of 53/100.		
Mitigations: Accountability and transparency risks will be mitigated by IFAD supervision and implementation support missions. Currently, each project is supervised once a year with some additional supplementary implementation support. Additionally, all procurement entities, as well as bidders, suppliers, contractors, consultants and service providers, shall observe the highest standard of ethics during the procurement and execution of contracts financed under IFAD funded Projects, in accordance with paragraph 69 of the IFAD Project Procurement Guidelines. The Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations shall apply to all projects, vendors and third parties, in addition to the relevant national anticorruption and fraud laws.		
Capability in public procurement	**Moderate**	**Low**
Risk(s): Since RDDP-2 is an upscale of the existing RDDP, a few risks have been identified. The acting head of procurement and RDDP procurement officer has 12 years of experience. If the RDDP-2 procurement officer (PO) is recruited competitively, there is a risk that the PO to be recruited will not have experience in IFAD procurement guidelines.		
Mitigations: Retain the services of the existing PO and Procurement Specialists at the expiry of RDDP to ensure continued familiarity with the project as well as experience with IFAD procurement and projects. Mandatory enrolment in IFAD BuildProc Public Procurement Certification programme for any newly hired procurement staff.		
Public procurement processes	**Substantial**	**Moderate**
Risk(s): The open procedure is the default procedure for contracts that exceed the national threshold for small purchases with a value not exceeding RWF 3M (approximately, USD 3,000). Past missions have observed that there is a conflict between government thresholds for small purchases, and those set out in the LTB. The project is compelled to adhere to government guidelines in order to avoid Compliance issues during Audit, but on the other hand it will appear as if the project is not		

Risk categories and subcategories	Inherent	Residual
adhering to the thresholds set out in the LTB. As a result of using national thresholds, previous missions have observed that the implementation of the project PP for RDDP experienced delays in some instances. Although foreign firms easily access bidding documents on the e-procurement platform, as per the requirement of Article 27 of Ministerial Order No. 002/20/10/TC of 19/05/2020), the system charges a non-refundable fee of up to FRW 10,000. This represents a constraint to easy access to bid documents by foreign firms since they are not locally domiciled to pay for this fee. The public e-procurement system 'UMUCYO' has a requirement to upload an approved procurement plan (PP), by 31st July of the financial year. Past experience has shown that, there are instances where the AWPB and PP delay to be awarded a No objection by IFAD. This implies that, in order for the project to comply with this requirement, an unapproved PP will be uploaded onto 'UMUCYO' and later replaced with the PP that has been awarded an IFAD No objection. This implies that, although the project has uploaded a draft PP, tender notices cannot be posted onto 'UMUCYO', and the risk is that there will be delayed implementation of project activities. Article 5 of Ministerial Order no. 002/20/10/TC of 19/05/2020 establishing Regulations on Public Procurement requires that the Chief Budget Managers of PEs appoints a tender committee for a term of 3 years, which may be renewed once. RDDP has a 7-member tender committee appointed by the Director General of RAB. This contradicts IFAD guidelines.		
Mitigations: IFAD should engage in policy dialogue with GoR to harmonize the thresholds of the LTB with those of the national law. Discussions with the RPPA revealed that foreign bidders may partner with local subsidiary banks to facilitate payment of access fees. Further policy dialogue with the government to encourage the possibility of online payments e.g., credit cards. In order to avoid delays due to late approval of AWPB and PP, there will be a need for the SPIU to submit a draft AWPB and PP for IFAD's No-Objection at least 60 days prior to the start of the relevant financial year. IFAD should engage GoR through policy dialogue on the possibility of nominating ad-hoc tender evaluation committees.		
Financial management	**Moderate**	**Moderate**
Organization and staffing	**Substantial**	**Substantial**
Risk(s): 1st Risk(low): Inadequate capacity/experience in the financial management of donors' funded projects and in IFAD procedures. 2nd Risk (substantial): FM staff assigned to IFAD's projects have undergone a salary reduction, in the last two years, compared to original project costing, as per decision of National Authority. There is a risk of rising demotivation on the job and loss of experience due to potential turnover.		
Mitigations: (i) leverage on overall SPIU-FM team guidance/support to secure early project start-up, (ii) maintain the Financial Specialist currently assigned to RDDP based on performance assessment (ii) continuous capacity building through FMD programmes (i.e. APEX, FM e-learning). strengthen linkage of ToRs for FM staff to job title for proper alignment to salary scale, as per national authorities' procedure.		
Budgeting	**Moderate**	**Moderate**
Risk(s): (i) low budget credibility (execution rate) due to difference between the budget locked in the national envelope (March) and the most updated/realistic budget projection approved by IFAD (April/May); (ii) delayed AWPB submission to IFAD. (Note: according to national calendar, budget structure is early submitted by SPIU in November. GoR sets total budget ceiling in February and final allocations among		

Risk categories and subcategories	Inherent	Residual
submitted activities are locked in March. Midyear revisions of budget ceilings/activities will be allowed only on December).		
Mitigations: (i) budget structure (by activity) presented in November with a granularity that enables flexibility in the allocation adjustments in March; (ii) budget preparation with a minimum quarterly phasing based on procurement plan projections for early identification of activities to be carried forward in the next year and to avoid duplications; (iii) wise allocation of sufficient resources by activities to avoid overdraft of GoR ceilings until mid-year revisions.		
Funds flow/disbursement arrangements	**Moderate**	**Low**
Risk(s): (i) lack of a solid liquidity plans and/or associated to not credible AWPBs (ii) late/weak alignment to IFAD disbursement reform (IFR-based) for prompt WA submission; (ii) cross financing practices due to liquidity shortage for delay/non-materialization of third parties co-financing; (iii) currency deterioration.		
Mitigations: (i) early training on IFR reporting/cash forecasting/WA submission. (ii) Early identification (at design) of the likelihood of potential funding gaps from co-financier and prudent adoption of financing rules in COSTAB preparation to prevent bottlenecks in the First AWPB preparation/execution. (iii) Constant monitoring, mainly during bids, of the impact of exchange rate variations on actual costs compared to the investment initially estimated at design (Costab).		
Internal controls	**Substantial**	**Substantial**
Risk(s): Inadequate control on the justification of funds advanced to implementing partners (i.e. as per national regulation advances are expensed when cashed out); MoU weaknesses in defining Imp. Partner's responsibility in the use of advanced fund for the project's intended purposes.		
Mitigations: (i) set clear reporting deadlines in MoUs on the status of advanced funds and improve on regular follow up; (ii) set utilization reports of prior advances as condition to subsequent disbursements; (iii) transfer/manage advanced funds into a segregated bank account at implementing partner; (iv) advance funds on the basis of as x% justification of cumulative prior advances (to avoid idle stock); (v) maintain ageing reports on advances and relevant status of settlement (based on adequate supporting documentation as set in MoUs); (vi) report this into quarterly IFR and yearly FS (in the Notes); (vii) capture the above into PIM; (viii) regular oversee from the internal auditor-SPIU.		
Accounting and financial reporting	**Moderate**	**Moderate**
Risk(s): (i) finetuning in the customization of IFMIS (ii) weaknesses in the mapping/evaluation of in-kind co-financing and recording into IFMIS; (iii) complexity of reporting due to harmonization of financiers' practices (i.e. GCF).		
Mitigations: (i) finetune recent CoA customizations (comp/categories) through constant dialogue SPIU-MINECOFIN/IT for IFMIS maintenance and enhanced report generation (ii) early identification/mapping of in-kind contribution into COSTAB and recording/monitoring through IFMIS-M&E; (iii) early identification of reporting requirements by financiers into costab/budget.		
External audit	**Low**	**Low**
Risk(s): Project inadequately audited and reports not timely submitted to IFAD.		
Mitigations: (i) Early engagement of Auditor General (OAG) for including the Project into yearly work plan; (ii) regular/prompt follow up on auditor's observations.		
Environment, social and climate impact	**Moderate**	**Moderate**

Risk categories and subcategories	Inherent	Residual
Biodiversity conservation	**Substantial**	**Low**
Risk(s): RDDP-2 will be implemented in the vicinity of three National Parks: the Akagera National Park, the Volcanoes National Park and the Nyungwe Forest National Park, which all host considerable biodiversity of fauna and flora including the highly endangered mountain gorilla. In addition, due to the predominance of rugged terrain and steep slopes combined with high density of population, agricultural lands in hilly areas are exposed to high levels of erosion, and marshland areas and riverbeds to excessive siltation. Finally, the progressive disappearance of the local purebred Inyambo cattle, due to continuous crossbreeding with exotic cattle, poses a significant threat to the country’s biodiversity.		
Mitigations: The Government of Rwanda has put in place a comprehensive set of measures to ensure that encroachment of National Parks and catchment areas by farmers and livestock does not occur, both by strict controls, and incentivizing mechanism for the neighbouring communities. RDDP-2’s promotion of a climate-smart dairy intensification approach will also contribute to biodiversity conservation, trough rehabilitation of land and erosion control with plantation of fodder in anti-erosive lines, as well as agroforestry tree and shrub species. The project will also support conservation of purebred Inyambo cattle, both ex-situ through production and conservation of semen and embryo, and in-situ through support to Inyambo livestock keepers willing to valorise their products on high value niche markets that take advantage of the image and reputation of the breed.		
Resource efficiency and pollution prevention	**Substantial**	**Moderate**
Risk(s): Inadequate access to clean water affects livestock productivity, especially during the dry season, compromising milk quantity, quality and hygiene. In addition, pollutants might be released in the environment, by MCCs, MCPs, milk processing facilities, tick control and veterinary facilities, hence negatively impacting the environment.		
Mitigations: RDDP-2 will promote efficient water use management at all levels of the dairy value chain (water harvesting techniques, improved washing stations for dairy equipment, cattle drinking facilities). The Project will also focus on waste management at both production (composting), aggregation and processing levels (soak pits, recycling of waste water) and will apply proper site selection of infrastructure, taking into account the proximity to water bodies, rural settlements and rural facilities in order to avoid water contamination, land degradation as well as social conflicts.		
Cultural heritage	**Low**	**Low**
Risk(s): The project has a very low risk of degrading the cultural heritage. The constructions for animal shades being done at the household level use locally available and culturally acceptable materials. The construction of water harvesting tanks at household levels uses plastics and cement which are accepted by the government standards. The construction of communal water infrastructure (boreholes, valley dams) shall be done using certified materials, procedures and by qualified companies selected by local governments to avoid destruction of any cultural site. The chances of affecting any Physical Cultural Resources are small.		
Mitigations: No specific mitigation measure is required as the inherent risk is classified as low. However, an Archaeological Chance Finds Procedure has been developed as a precautionary measure to pre-empt any risks and negative impacts that may occur during infrastructure construction activities.		
Indigenous peoples	**Low**	**Low**

Risk categories and subcategories	Inherent	Residual
Risk(s): In Rwandan context, recognizing the ethnicity publicly is banned. It is noted that getting the accurate data and figures on the economic situation faced by the indigenous community is challenging. The project target communities will include vulnerable and marginalized groups.		
Mitigations: RDDP-2 targeting approach will ensure that vulnerable and marginalized groups are included. In the event during the implementation that indigenous communities are identified in the project area, the project will follow the steps to seek their free, prior and informed consent (FPIC) outlined in the SECAP Review Note.		
Community health and safety	**Substantial**	**Moderate**
Risk(s): Some risk of potential community health issues is related to animal to human communicable diseases (Zoonoses such as Rift Valley Fever, Bovine brucellosis and tuberculosis). For instance, during the CN mission there were two (2) reported human cases of Rift Valley Fever in Muhanga District. The existence of raw milk market and self-consumption of raw milk at home possesses a risk of unsafe and contaminated raw milk that can cause food borne diseases such as dysentery or zoonotic diseases like Tuberculosis and Brucellosis. Another risk is related to the use and disposal of chemicals and their containers, acaricides in particular (used to control ticks) which may contaminate the environment, while empty containers may be used for domestic purposes. There is also a risk of not attaining the anticipated nutrition outcomes if smallholder households do not consume the required litres of milk and if income earned from sell of dairy products is not used to buy nutritional food items at households.		
Mitigations: Through capacity building programmes organized using approaches such as the L-FFS, VBHCD and Gender Action Learning System (GALS), the target population shall be sensitized on zoonotic diseases related risks, communicable diseases related risks, best practices of keeping animals in a safe manner to avoid cross species contamination (e.g. safe disposal of fetus and placenta in case of abortion), and disposal of containers of veterinary medicines. The risk related to consumption of raw milk will be firstly addressed through nutrition education at community and household level, and accompanied by efforts for upgrading the raw milk value chain (e.g. supporting introduction of simple pasteurization systems). The risks of having all milk produced marketed will be mitigated through Heifer VBHCD, which includes a nutrition component, and through strong implementation of the GALS and nutrition education and awareness raising.		
Labour and working conditions	**Substantial**	**Moderate**
Risk(s): There is a risk of zero grazing increasing the workloads especially for women and children, who are also responsible for domestic care tasks. The added animal care workload may relate to collecting fodder and water, feeding, clearing, and security of animals among others. There is also a risk of poor working conditions especially for the youth and a few women involved in milk collection and transport services who sometimes walk long distances to collect and deliver milk to MCCs and often use bicycles in difficult terrain. Workers in milk collection may face long and exhausting hours, often involving early morning or late-night shifts. The absence of proper training and support in milk collection can also be detrimental. Workers may lack the necessary knowledge and skills to handle milk safely, leading to hygiene and quality concerns. This not only affects the workers but also compromises the quality of the milk being collected.		

Risk categories and subcategories	Inherent	Residual
Mitigations: Construction of communal water infrastructure (boreholes, valley dams) and household level water harvesting facilities for Girinka recipients, organizing the fodder value chain (installation of specialized private fodder producers and vendors) and promoting small scale mechanization will reduce the workload for dairy farmers, women in particular. Implementation of GALS will minimize inequity in labour distribution and discourage child labour. Mobilizing and organizing the youth involved in milk collection and transportation into cooperatives and facilitating access to credit help these categories of beneficiaries to acquire improved transport means (including electric bicycles and motorcycles), to efficiently operate. Mitigation measures are articulated in ESCMF with respect to labour and working conditions. RDDP-2 will focus on monitoring the working conditions and ensure health and labour safety requirements are met throughout the project implementation.		
Physical and economic resettlement	**Low**	**Low**
Risk(s): The project shall not promote activities that lead to the resettlement of smallholder farmers. The construction and rehabilitation of communal water infrastructure (boreholes, valley dams) shall be done on sites identified by the communities, accepted by the government and in consultation with Local Governments. However, in any rare case if there is need for the district to expropriate land from for the construction of project infrastructure such as MCCs or MCPs, and no other alternative could be sought, then mitigation measures shall be revoked.		
Mitigations: The infrastructure that will be constructed and rehabilitated will be on state land already and will not cause any Physical resettlement of permanent homes or resettlement of livelihood activities (cattle grazing and hunting grounds). So, the development of a resettlement plan is not required. However, in case of unavoidable eviction, compensation will be provided by the Districts to individual land owners whose land had been expropriated to put up project infrastructure, as per National rules. Expropriation takes place as the very last resort, when all other avenues have failed. It will therefore be very limited and may happen only in very isolated cases. Compensation will be provided to the individuals in line with the Rwanda Expropriation Laws and FPIC is observed, and a consent document signed between the evicted person and the District.		
Greenhouse gas emissions	**Substantial**	**Moderate**
Risk(s): Increased dairy production may contribute to anthropogenic greenhouse gas (GHG) emissions, associated with land management, enteric fermentation, manure management, as well as milk transportation, cooling and processing.		
Mitigations: RDDP-2's climate change mitigation options will include the promotion of agroforestry and plantation of perennial fodder to enhance soil carbon sequestration and reduce soil erosion as well as manure and waste management to decrease water and soil pollution, increase soil fertility and structure, and convert waste into energy through biogas digesters. Improved feeding can also result into less GHG emissions, as highly digestible feed reduces emissions and improve feed efficiency. Finally, solar energy will be introduced at different levels of the dairy value chain, for cooling of milk and dairy products, conservation of vaccines, water heating for cleaning and processing, and at household level for lighting which will improve animals' security, feeding and time management. A carbon assessment conducted with FAO's Global Livestock Environmental Assessment Model – interactive (GLEAM-i) will also inform on the best management practices that will reduce GHG emissions.		

Risk categories and subcategories	Inherent	Residual
Vulnerability of target populations and ecosystems to climate variability and hazards	**Substantial**	**Moderate**
Risk(s): The drier Eastern Province is considered the most vulnerable to climate impacts because dry spells are increasing in length, leading to food shortages and fodder deficits that affect milk production. In the west, rising temperatures are likely to force valuable tea and coffee production into higher, but less productive lands. Warming temperatures are also likely to expand the range of crop pests, such as the coffee berry borer beetle, and livestock diseases, such as Rift Valley fever and tick-borne diseases. On the steep slopes that dominate much of the country, floods, landslides, and soil erosion already impact agriculture, infrastructure, and services. In rapidly growing urban areas, there is increasing concern about water shortages during longer dry spells and the impact of flooding and landslides on expanding informal settlements in risk-prone areas like steep slopes and floodplains. Heavy rainfall also increases siltation of rivers, lakes, and reservoirs, and contaminates industrial, agricultural, and domestic sources.		
Mitigations: RDDP-2 will adopt a climate-smart dairy intensification approach that consists of: awareness raising of dairy producers on utilization of existing climate information systems, to better anticipate climate hazards; promotion of hardy breeds (e.g. jersey or crossed animals rather than Friesian), to better withstand food shortages and livestock diseases; promotion of improved and climate-resistant fodder varieties and on-farm water accessibility, to ensure a higher adaptability of the dairy value chain to droughts and ensure water availability throughout the year; promotion of manure and waste management, to counteract pollution and environmental damage.		
Stakeholders	**Substantial**	**Moderate**
Stakeholder engagement/coordination	**Substantial**	**Moderate**
Risk(s): The main limitation to adequate stakeholder engagement is the limited technical capacity, financial and institutional capacity of stakeholders' organization at local and national level. At the local level, capacities of farmers groups and cooperatives are not always commensurate with the importance of infrastructures they are in charge of (MCCs in particular) and to the related volume of business. This sometimes leads to poor management and low efficiency of these infrastructures that are critical to the value chain. At National level, the main stakeholder organization is the Rwanda National Dairy Platform which gathers all categories of value chain actors. RNDP is now decentralized at District level. However, the main weaknesses of RNDP that limit stakeholders engagement are: (i) inadequate representation of IFAD target groups, in particular poor smallholder farmers (the production cluster being dominated by large scale producers, as it is often the case in such organizations), (ii) low representation of the raw milk sector actors, which is a necessary condition to ensure proper and inclusive dialogue on the raw milk value chain reforms, and (iii) poor financial sustainability of the platform, which is mostly project dependent. A third risk relates to the inadequate coordination, leading to overlapping, of Government institutions supporting Cooperatives and MCCs.		
Mitigations: To address the first risk, RDDP-2 will put a lot of emphasis on supporting capacities of groups and cooperatives to manage MCPs and MCCs, rather than on further increasing investments. This will be achieved through mobilization of private Business Development Service Providers, which will be remunerated through sustainable arrangements such as profit sharing. Through facilitation of productive alliances with off-takers, cooperatives will also delegate some of the business management		

Risk categories and subcategories	Inherent	Residual
responsibilities (such as maintenance of coolers, management of payment to farmers) to the private sector partner. The second risk will be mitigated by encouraging participation of targeted cooperatives and L-FFS groups in District platforms, and in RNDP governance. RNDP has already initiated the process of engagement of raw milk traders and vendors, and these efforts will be further supported by the project. To improve coordination of actors supporting cooperatives, RDDP-2 will ensure that they actively participate in the Dairy Working Group led by MINAGRI, and will support the formulation of a coordination framework including development of clear and coordinated terms of reference for each of these institutions.		
Stakeholder grievances	**Moderate**	**Low**
Risk(s): Potential conflicts may arise among milk producers involved in management of MCCs and MCPs, between formal and informal milk market actors, and between smallholder producers and off-takers/exporters. Complaints may also arise from potential beneficiaries during attribution of animals in the scope of Girinka programme, including for selection of initial placement or Pass On the Gift (POG) beneficiaries. A GRM framework was developed under RDDP and reviewed at design but has not been fully implemented yet. Heifer International has its own GRM mechanism that was considered as compliant with IFAD requirements and is fully operational.		
Mitigations: Grievance procedures are required to ensure that Project Affected Persons (PAPs) are able to lodge complaints or concerns, without cost, and with the assurance of a timely and satisfactory resolution of the issue. The procedures should ensure that the entitlements are effectively transferred to the intended beneficiaries. The already developed Grievance Redress Mechanisms (GRM) will be rolled out at community level (L-FFS, MCP, MCC, etc.) to ensure that complaints received are promptly reviewed to address project-related concerns. The entry point for GRM will be SPIU in close collaboration with the focal persons at district level and the Gender and Social Inclusion Specialist will be appointed to follow up on the GRM process. A Free Prior and Informed Consent (FPIC) process will be conducted with those POs ahead of any project investment that may affect the target beneficiaries.		