

DOC NO. 2
ANNEX VI
INTERIM NARRATIVE REPORT

First Interim Report

3 February 2020-2 February 2021

**Climate Smart Agriculture Research and Innovation Support for Dairy
Value Chains in Eritrea (CSARIDE)**



Contract Reference Number: FOOD/2019/411-806



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List of acronyms used in the report

AI	Artificial Insemination
AKIS	Agricultural Knowledge Innovation System
BDS	Business Development Service
CA	Contracting Authority
CAG	Consortium Agreement/ Collaboration Agreement
CSA	Climate Smart Agriculture
CSARIDE	Climate Smart Agriculture Research and Innovation Support for Dairy Value Chains in Eritrea’
DoA	Description of Action
EC	European Commission
EDF	European Development Fund
EFA	Economic and Financial Assessment
EIA	Environmental Impact Assessment
EIDP	Eritrea-Ireland Development Partnership Office, Asmara
EUDE	European Commission, Delegation of the European Union to the State of Eritrea
FAO	Food and Agriculture Organization of the UN
GC	Grant Contract
GoSE/SoE	Government of the State of Eritrea
HAC	Hamelmalo Agricultural College, Eritrea
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IPR	Intellectual Property Rights
IT	International Team

LUKE	Natural Resources Institute Finland
M&E	Monitoring and Evaluation
MIHAP	Minimum Integrated Household Agricultural Package
MoA	Ministry of Agriculture, State of Eritrea
AED	Agriculture Extension Department of MoA
MoLWE	Ministry of Land, Water and Environment, Eritrea
MoU	Memorandum of Understanding
NARI	National Agriculture Research Institute, Eritrea
NGO	Non-governmental Organization
NSC	National Project Steering Committee
NUEW	National Union of Eritrean Women
OM	Outcome Mapping
PC	Project Coordinator
PF	Performance Framework
PIP	Project Implementation Plan
PM	Project Manager
PMC	Project Management Committee
PMF	Performance Measurement Framework
RC	Results Chain
RPIC/ZT	Regional Project Implementation Committees/Zoba Team
SDGs	Sustainable Development Goals
SHA	Self Help Africa
SLM	Sustainable Land Management
TL	Task Leaders
ToT	Training of Trainers
UCC	University College Cork, Ireland
UCD	University College Dublin, Ireland

UNDP	United Nations Development Programme
WP/WPL	Work Package/ Leader

1. Description

- 1.1. Name of coordinator of the grant contract: **Dr Lance O'Brien**
- 1.2. Name and title of the contact person: **Dr Lance O'Brien, Project Coordinator**
- 1.3. Name of beneficiaries and affiliated entity(ies) in the action:
Teagasc -The Agriculture and Food Development Authority is the lead applicant. University College Dublin (**UCD**), University College Cork (**UCC**), National Resources Institute Finland (**LUKE**), **Vita** and Self Help Africa (**SHA**) are co-applicants to the grant contract.

The Ministry of Agriculture (**MoA**), Ministry of Local Government (**MoLG**), National Agricultural Research Institute (**NARI**), Hamelmalo Agricultural College (**HAC**) and National Union of Eritrean Women (**NUEW**) are local contract associates.
- 1.4. Title of the action: **Climate Smart Agriculture Research and Innovation Support for Dairy Value Chains in Eritrea (CSARIDE)**
- 1.5. Contract number: **FOOD/2019/411-806**
- 1.6. Start date and end date of the reporting period: **3 February, 2020 – 2 February, 2021**
- 1.7. Target country(ies), regions, municipalities or towns: **State of Eritrea: Zobas Debub, Maekel, and Anseba**
- 1.8. Final beneficiaries&/or target groups (if different) (including numbers of women and men):
Final Beneficiaries
- Resource-poor livestock farmers;
 - Private and cooperative input and output market agents and service suppliers, including milk collection and processing entities, as well as AI and veterinary services;
 - Small -scale entrepreneurs (e.g. National Union of Eritrean Women); and
 - Public sector bodies including the National Agriculture Research Institute (NARI), Hamelmalo Agricultural College (HAC), MoA, and regional governments (Zobas).
- Target Groups**
- Unemployed youth who will benefit from additional employment opportunities flowing from a more productive farming sector and stronger overall value chain;
 - Consumers of the new high-value dairy products who will enjoy greater availability of more cost-effective, quality products; and
 - National economy, which will benefit from increased employment, additional food exports and reduced food imports.
- We will furnish a gender breakdown of expected number of beneficiaries and target groups as soon as baseline survey is completed.
- 1.9. Country(ies) in which the activities take place (if different from 1.7):

2. Assessment of implementation of action activities and its results

2.1. Executive summary of the action

Following the signing of the Grant Contract with the EU Delegation to the State of Eritrea (EUDE) on 3rd February 2020, work commenced on the PIP phase with the convening of an inception workshop in Asmara on 25th February.

However, the lockdown measures and travel restrictions issued to curb the spread of COVID affected both in-country and international travel, and thus constrained the PIP development process and overall action implementation. Accordingly, this first report is limited in its scope of narrating progress at output and outcome level. Even in ideal circumstances, it would not have been anticipated that the project would report achievements in respect of outputs, outcomes and impacts in its first year, given the constraints operating in Eritrea and the very low level of development of the existing dairy value chain in the country. Experience shows that a lot of time would be required early on to institutionalize the project and put in place some of the key structures and procedures needed to underpin successful long-term implementation.

Nevertheless, the project team managed to complete some critical actions designed to institutionalise the CSARIDE project. This process was essential in creating awareness among stakeholders of the project and securing their buy-in for its future implementation. In view of the long-term experience of Teagasc and some of the other international partners in working in Eritrea, the team is confident that the project can deliver on the key outcomes, outputs and impacts over the remaining period, assuming that work can get underway in 2021.

Staffing of the project progressed with the recruitment of two international consultants and the formation of the National Project Management Team (NPMT) and three Zoba project teams. The project governance structure was established with the formation of the Steering and Project Management Committees, both of which held meetings during the year. The local teams held introductory/consultative meetings with value chain actors in the three study Zobas to introduce the project and secure stakeholders' support. The project team also held virtual meetings with FAO and IFAD to initiate collaboration in the delivery of capacity building actions. The project team completed a Project Handbook; developed Dropbox folders for internal communication; drafted a communications strategy; commenced work on the project website; and completed an introductory video.

As part of the PIP development process, all of the State support agencies prepared self-assessment reports and diagnostic reports on the dairy value chains in each Zoba. These reports were used to develop intervention plans. The NPMT hired a local consultant to undertake the baseline study. The consultant has completed all of the preparatory work and is ready to begin the survey work as soon as movement restrictions are lifted.

In terms of institutional capacity building, the action supported rehabilitation of the National AI centre at Asmara and the milk collection centre in Encode, Zoba Anseba. Further, the project facilitated for registration of two NARI staff to pursue their MSc degrees, and with three more to follow in 2021. The extended period of travel restriction forced the project team to shift to virtual consultation forums and members of the project team worked with HAC to assist in developing a new curriculum, strengthening farm infrastructure and management, and equipping the laboratories. The project team has progressed the development of the Year 2 work plan and budget, but regrettably, is unable to meet the current submission deadline.

In line with the low-level of activity on the ground, the reporting period expenditure of €262,357 represents a considerable under-spend on the original budget proposal.

2.2. Results and activities

A. RESULTS

The project implementation strategy involves a two-phase schedule: the first phase– lasting five months in Year 1 – was devoted to the preparation of the PIP; the second phase embraces the implementation of the specified interventions that will result in each of the Outputs and Outcomes described in the Intervention Logic model. As discussed in relevant chapters of this report, the COVID-19 pandemic affected the PIP preparation phase and, as a result, while the project team made considerable progress, it was precluded from completing this initial stage of the process. The ongoing national and international responses to Covid-19 also seriously inhibited the implementation of the second phase. As a result, the team is not in a position to report on results (outcomes), outputs and impacts for Year 1 as defined in the logical framework.

Even in ideal circumstances, we would not have anticipated delivering significant outcomes and impacts in the first year, given the constraints operating in Eritrea and the very low level of development of the existing dairy value chain in the country. Experience shows that a lot of time would be required early on to institutionalize the project and put in place some of the key structures and procedures needed to underpin successful long-term implementation.

Accordingly, this first report is limited in scope, but does indicate that the team managed to complete some critical actions designed to institutionalise the CSARIDE project. This process was essential in creating awareness among stakeholders of the project and securing their buy-in for its future implementation. In view of the long-term experience of Teagasc and some of the other international partners in working in Eritrea, the team is confident that the project can deliver on the key outcomes, outputs and impacts over the remaining period assuming that work can get underway in 2021.

The log-frame is being revised in light of information emerging during the preparatory work and from the additional inputs from NPMT, the 3 Zoba teams and international staff. We will share the revised log-frame matrix with baseline values established for key indicators with the EUDE together with the baseline report once the survey is completed. Thus, the table below provides highlights based on indicators and target set in the original log-frame.

Table 1: Level of achievement of Results (Outcomes) in the reporting period

Results/ Outcome	Indicator	Target	Level of achievement
Outcome 1: Improved climate smart dairy farming production and productivity leading to enhanced supply of quality dairy products, improving household income and generating employment along an equitable value chain	<ul style="list-style-type: none"> % increase in amount of milk processed at collection centers 	30% increase, Y4	This being the first year of implementation, the focus has been on defining project targets, and diagnosing the DVC for targeting and development of intervention options. Activities were hampered due to restrictions put in place to curb spread of COVID-19. Thus, no significant outputs were registered, and it is too early to comment on the level of achievement at outcome level.

	<ul style="list-style-type: none"> • %increase in income among participating smallholder farmers from livestock (gender disaggregated) 	At least 20 % increase reported by the end of project	Too early to comment on progress based on outcome indicators.
	<ul style="list-style-type: none"> • % increase in farmers using improved feeding plans 	30% increase, Y4	Too early to comment on progress based on outcome indicators.
	<ul style="list-style-type: none"> • No. of new jobs created along the value chain 	300, Y4	Too early to comment on progress based on outcome indicators.
Outcome 2: Enhanced organizational capacity and enterprise skills of dairy value chain actors with capacity to adopt/promote new technologies	<ul style="list-style-type: none"> • # of agricultural actors who adopt a specific CSA practice promoted by the project 	3 new/improved dairy value chains	Too early to comment on progress based on outcome indicators
	<ul style="list-style-type: none"> • # of commercial dairy firms adopting CSA best practices 	6, one in each Zoba, Y4	Too early to comment progress based on outcome indicators
Outcome 3: Enhanced service delivery and support of institutional actors on climate smart innovation, and knowledge management along the daily value chain	<ul style="list-style-type: none"> • # of education/training centers providing CSA focused curriculum and offering practical skills on innovation and value chains 	2 institutional actors (HAC and Hagaz) adopt new curriculum, Y4	Too early to comment on progress based on outcome indicators
	<ul style="list-style-type: none"> • Research providing practical information to meet immediate needs in the value chain 		Too early to comment on progress based on outcome indicators
	<ul style="list-style-type: none"> • # of new research bulletins produced 	10 new research bulletins produced by Y4	Too early to comment progress based on outcome indicators

	<ul style="list-style-type: none"> • % increase in no of research/technical papers produced re. climate smart agriculture 	20% increase, Y4	Too early to comment on progress based on outcome indicators
	<ul style="list-style-type: none"> • # dairy farmers adopting new technologies from market-oriented extension service 	300 farmers /center/year	Too early to comment on progress based on outcome indicators
	<ul style="list-style-type: none"> • Extension services providing affordable AI services to improve breed quality. • Availability and accessibility of high-quality semen for improved breeding 	3,000 dairy cattle serviced annually, Y4	Too early to comment on progress based on outcome indicators
Outcome 4: Increased access to information and knowledge on CSA practices, tools and approaches for the wider public	<ul style="list-style-type: none"> • % of non-target area farmers who have heard about CSA from project 	30%, Y 4	Too early to comment on progress based on outcome indicators
	<ul style="list-style-type: none"> • % non-project farmers adopting new CSA approach from project 	20%, Y 4	Too early to comment on progress based on outcome indicators
	<ul style="list-style-type: none"> • # of agricultural technologies, innovations, and management practices (TIMPS) adopted in non-project areas 	5 TIMPS adopted	Too early to comment on progress based on outcome indicators



Female beneficiary of MIHAP Programme

B. Assessment of Outputs

Following the signing of the Grant Contract (GC) with the EU Delegation to the State of Eritrea (EUDE) on 3rd February, 2020, work commenced on the PIP phase with the convening of an inception workshop in Asmara on 25th February, attended by 60 delegates, including project partners and associates, and staff from FAO, UNDP and the EUDE. The principal output was an agreed schedule of actions intended to culminate in the submission by the due date of the PIP and Year 1 work plan and budget.

However, the project team had to revise its plans following the outbreak of Covid-19 and the subsequent imposition of lockdowns and travel restrictions, which greatly hampered progress on all aspects of the Year 1 planned work.

Nevertheless, the international project team (IT), working with the Project Manager (PM) and national (NPMT) and Zoba teams (ZT), using Zoom and other digital communications, made good progress in putting in place many of the key supports needed in the long term, as outlined in Table 2 below.

Table 2: Level of achievement of Outputs in the reporting period

Output	Indicators	Target	Level of achievement
Output 1.1 dairy actors are well informed on available intervention options and priorities	<ul style="list-style-type: none"> No. of intervention options identified for use along value chain. 	<ul style="list-style-type: none"> Five menus of intervention options developed for application depending on need along value chains. 	<ul style="list-style-type: none"> Three Zobas and 15 sub-Zobas identified during the rapid diagnostic process and self-assessment reporting. (Anseba- 4, Dehub- 12 and Maekel- 3). Preliminary characteristics provided to support draft PIP preparation Different menus of interventions options under review and will be worked out as part of finalization of PIP
Output 1.2 Increased production of milk in value chain area	<ul style="list-style-type: none"> Higher milk production in project villages compared with non-project villages 	<ul style="list-style-type: none"> 100% 	<ul style="list-style-type: none"> Actual field implementation has not started and hence no achievement reported.
Output 1.4 Increased access to milk assembly/processing facilities	<ul style="list-style-type: none"> % of farmers that have access to dairy milk collection centers and processing facilities 	<ul style="list-style-type: none"> 30% 	<ul style="list-style-type: none"> None
	<ul style="list-style-type: none"> % increase in proportion of population with access to nearby dairy and products market 	<ul style="list-style-type: none"> 30% 	<ul style="list-style-type: none"> None

	<ul style="list-style-type: none"> # of milk collection centers established /rehabilitated 	<ul style="list-style-type: none"> Three fully functioning milk collection centres established in three different Zobas 	<ul style="list-style-type: none"> Contract signed for renovation of one MCC centre at Encode (Zoba Anseba)
Output 1.5: Project actors are well- informed on livestock value chains	<ul style="list-style-type: none"> No. of livestock value chains selected, mapped and opportunities identified 	<ul style="list-style-type: none"> Three dairy value chains identified, mapped and constraints and opportunities identified 	<ul style="list-style-type: none"> Three dairy target Zobas and 15 sub-Zobas identified and rapid diagnosis and preliminary characterisations provided.
Output 1.6: Project actors able to use business planning tools	<ul style="list-style-type: none"> Number of business plans developed which include impact pathways 	<ul style="list-style-type: none"> Three business plans developed for selected value chains and implemented 	<ul style="list-style-type: none"> Not done
1.7 : improved capacity on value chain development by project actors	<ul style="list-style-type: none"> Number of facilitators identified to champion the development of value chains and their components. 	<ul style="list-style-type: none"> Three facilitators identified to champion the development of the selected value chains 	<ul style="list-style-type: none"> Not done
2.1 Strengthened institutional capacity for supporting the selected value chains	<ul style="list-style-type: none"> # of farmers provided with improved technology % of farmers successfully adopting/using improved technology Number of trainers from public and private organizations selected (ToT) for delivery of required training programmes. Client days of ToT on CSA provided to strengthen institutional capacity for supporting the 	<ul style="list-style-type: none"> 800 hub farmers and 40,000 small-scale farmers, 70% success rate, Y4 10 key personnel from public & private sector trained to deliver training programmes for the selected value chains Client days of ToT on CSA provided to strengthen institutional capacity for supporting the selected value chains 	<ul style="list-style-type: none"> This being the first year of implementation, focus was on developing the PIP, targeting and identification of relevant support services. Hence, no actions delivered.

	selected value chains	<ul style="list-style-type: none"> 1200 client days of training provided by Y 4 	
2.2 Capacity for carrying out problem-oriented research to support organizational, institutional and technical innovations improved.	<ul style="list-style-type: none"> No. of students trained to MSc level in problem-oriented research to support technical, institutional and organizational innovations. 	<ul style="list-style-type: none"> Training in problem-oriented research to support technical, institutional and organizational innovations given to ~20 MSc students. Focus will also be on innovation job creation and CSA 	<ul style="list-style-type: none"> Five students identified. Two commenced MSc training and the other three registered for next academic year entry (2021).
2.3 Organizational, institutional and technical innovations delivering agricultural knowledge across the public and private sector	<ul style="list-style-type: none"> Improved Knowledge Management System developed at national level in support of agri-food industry 	<ul style="list-style-type: none"> Pilot knowledge management system developed so that knowledge can be accessed readily by institutions and value chain members 	<ul style="list-style-type: none"> Not Done
3.1 Improved research capacity of NARI	<ul style="list-style-type: none"> Development and implementation of a new research plan for NARI and HAC with ILRI and in conjunction with international agencies and institutions in Ireland 	MOU and research partnership between NARI, HAC, ILRI & Irish institutions	<ul style="list-style-type: none"> Four NPMT staff visited ILRI campus and exemplary DV development projects and actors. MoU not signed with ILRI and other institutions.
		Applied adaptive research programme implemented on station at NARI and on-farm in the three selected dairy value chain areas.	<ul style="list-style-type: none"> Self-assessment report by NARI indicated five area of focus and support required for undertaking applied adaptive research, which is being worked out for implementation, starting year 2.
		Climate smart research activities embedded into NARI projects. Climate smart dairy production 'blueprints' developed, available and incorporated in dairy farming systems	<ul style="list-style-type: none"> Not done

		Ten technical publications prepared which underpin the development of MAC for Eritrea.	<ul style="list-style-type: none"> • Not done
3.2 Improved capacity of MoA Extension Department to support the dairy value chain	<ul style="list-style-type: none"> • No. of bull studs established • No. upgraded AI facilities • No. of private AI service providers establish • No. of trained AI lab and facilities operatives. • No. of pilot cattle database established • Programme developed for local cattle breed improvement • No. of improved and fully functional National Analytical Laboratories • 	One bull stud established at site of Animal & Plant Diagnostic Centre	<ul style="list-style-type: none"> • Not done
		Four AI service facilities upgraded	<ul style="list-style-type: none"> • 1 Nitrogen plant at National AI centre maintained
		One private AI service provider established	<ul style="list-style-type: none"> • Not done
		10 staff trained	<ul style="list-style-type: none"> • 10 AI technicians trained
		One pilot cattle database centre established	<ul style="list-style-type: none"> • a web based dairy data base system and mobile application for data collection developed
		One programme developed and implemented for cattle breed improvement	<ul style="list-style-type: none"> • Nucleus Herd Breeding Centre identified at Guluj research stations
		One improved and fully functional National Analytical Laboratory established/improved.	<ul style="list-style-type: none"> • No done
3.3 Increased capacity of Hamelmalo Agricultural College (HAC) to deliver CSA focused education and training Indicators: <ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • New curriculum and teaching material for agriculture graduate students at HAC with a focus on meeting needs of market value chains, innovation support, farm enterprise and CSA • No. of HAC staff upgraded from BSc to MSc level 	New curriculum in place at HAC Y4	<ul style="list-style-type: none"> • Progress being made on development of detailed plan of action for improving capacity of HAC through curriculum revision, reactivation of MSc program and support to lab and dairy demonstration farm.
		200 graduates with understanding of market- led CSA value chains Y5	<ul style="list-style-type: none"> • Not Done
		Six teaching staff upgraded from BSc to MSc level.	<ul style="list-style-type: none"> • Not done
3.4 Improved facility for cattle improvement	<ul style="list-style-type: none"> • # of AI straws distributed from 	One cattle improvement centre	<ul style="list-style-type: none"> • 4,000 AI straws procured. Procurement procedural derogation approved for

	cattle improvement centre	established with a number of sub-stations	purchase of cattle to the breed improvement centre
4.1 Principles and good practices for value-chain knowledge development compiled and synthesized	<ul style="list-style-type: none"> • Protocols developed for disseminating knowledge and information to stakeholders 	Key publications available for dissemination outlining principles of good practice in value chains	<ul style="list-style-type: none"> • Not done
4.2 The principles of best practices promoted and disseminated within and beyond the project's target areas Publications produced	<ul style="list-style-type: none"> • Publications produced • Conferences /meetings held 	Promotional material available Three conferences/workshops held in new Zobas / four professional association events held	<ul style="list-style-type: none"> • Not Done



Dairy processing equipment at Hagaz College

C. Activities Accomplished

Following the signing of the GC on 3 February 2020, the team commenced work on the PIP phase with the convening of an inception workshop in Asmara on 25 February. However, by mid-March the detection of Covid-19 cases in Asmara led to the banning of international flights into Eritrea and movement within the country. In effect, these restrictions led to the cessation of all project fieldwork.

Despite these adverse developments, the IT, working with the PM and ZT, made good progress in putting in place many of the key supports needed in the long term. During this period, the project team also made progress in establishing the agreed project governance structure, negotiating partnership arrangements with FAO and IFAD and preparing for the baseline study.

We outline full details of activities completed in respect of each of the project’s six work packages in the following pages.

Work package 1: Design, Implementation, Management and Co-ordination

WP1 involves overall administration, day-to-day management and quality control of the outputs. It incorporates tasks such as establishment and maintenance of the Consortium Agreement, administrative matters, budget management and scientific management of the project including evaluation of work package deliverables.

Management and Governance

The applicants outlined the general project management structure in the original project proposal. This structure is evolving to meet the specific needs of the project and the requirements of programme delivery as it unfolds.

The MoA seconded Mr Kahsay Negash to act as Project Manager (PM) and leader of the National Project Management Team (NPMT). He reports directly to Dr Lance O’Brien, the overall Project Coordinator (PC).

The PM worked in tandem with the administrations in the three Zobas to select three Zoba teams (ZT). Each ZT comprises a regional coordinator, livestock experts, and support staff. They are responsible for working with the NPMT and in partnership with local stakeholders to develop and implement interventions on the ground. An international team of experts from Ireland, Finland and Ethiopia is responsible for supporting and mentoring the local teams.

The project comprises six work packages (WP), each one with a defined scope and objectives. The WP Leaders (WPL) (Table 1) are responsible for the detailed implementation of the work packages and tasks and preparation of the corresponding deliverables and milestones.

Table 1: Work Package Leaders

WP	Title	Organisation	WP leader name
1	Design, Implementation, Management and Co-ordination	Teagasc	Dr Lance O’Brien
2	Project Implementation Plan (PIP)	Teagasc	Dr Lance O’Brien
3	Improved climate smart dairy farming production and productivity leading to enhanced supply of quality dairy products, improving household income and	UCC	Dr Stephen Onakuse

	generating employment along an equitable value chain		
4	Enhanced organizational capacity and enterprise skills of dairy value chain actors with capacity to adopt/promote new technologies.	Consultant	Dr Getachew Gebru
5	Enhanced service delivery and support of institutional actors on climate smart innovation, and knowledge management along the dairy value chain	UCD	Prof Jim Kinsella
6	Increased access to information and knowledge on CSA practices, tools and approaches for the wider public	LUKE	Dr Mila Sell

A Project Management Committee (PMC), chaired by the PC (Table 2), aims to enhance cohesion between the different work elements and results sections. This committee comprises project staff only with the mandate of reporting progress and raising issues for the attention of project management. It is the principal management decision-making body and is responsible for strategic planning, setting the overall direction of the project and ensuring the successful completion of all project deliverables.

Table 2: The Project Management Committee Members.

Organization	Name	e-mail
Teagasc	Dr Lance O'Brien	lance.obrien@teagasc.ie
UCD	Prof Jim Kinsella	James.kinsella@ucd.ie
UCC	Dr Stephen Onakuse	s.onakuse@ucc.ie
Luke	Dr Mila Sell	Mila.sell@luke.fi
Vita	Mr John Weakliam	John.weakliam@vita.ie
EIDP	Mr Iyassu Ghebrerufael	vita.eritrea@gmail.com
MoA AED	Mr Kahsay Negash	negashk@gmail.com
Target Zoba representatives	Three Zoba project coordinators	-
Consultant	Dr Getachew Gebru	ggebru09@gmail.com

The NPMT office is located in the Eritrea Ireland Development Programme (EIDP) office in Asmara, but its management function is independent of the EIDP, as the PM reports directly to the PC. However, the EIDP provides services to the project in areas such as logistics, finance, HR, procurement, planning processes and partnership arrangements.

As part of project implementation, NPMT staff will travel to the Zobas to provide coaching and mentoring support. Depending on the nature of the interventions, regular scheduled visits will be prepared for each Zoba as part of the annual work plans for each staff member. As implementation progresses, many of these visits will take place around learning/planning events. Once implementation

commences, we will review the suitability and adequacy of staffing regularly and make adjustments as necessary.

A National Steering Committee (NSC) (Table 3), chaired by the Minister of Agriculture, will meet quarterly and provide high-level project governance. The NSC will: ensure that project activities are aligned with national and regional research and development priorities; identify gaps in value chain research and development to be addressed by the project; help to create synergies with relevant government programs; and review/make recommendations for the annual programme of work and budget.

The NSC met twice during this reporting period.

A National Project Advisory Committee (NPAC), chaired by DG Extension, and including DG NARI, Dean of HAC, senior livestock expert (MoA) and private sector representative, will meet twice per year to review project progress and impacts and to make recommendations to the NSC for the annual programme of work and budget.

Table 3: National Steering Committee Members

Organization	Name	e-mail
MoA	Minister Arefaine Berhe	arefaine202@gmail.com
MoA AED	Mr Heruy Asgedom	asgedomheruy@gmail.com
NARI	Mr. Tsegay Berhane	btsegay43@gmail.com
HAC	Prof.Woldeamlak Araia	woldearaiahac@gmail.com
Teagasc	Dr Lance O'Brien	Lance.obrien@teagasc.ie
EUDE	Mr Yosief Kahsay	Yosief.KAHSAY@eeas.europa.eu
FAO	Mr Seyoum Haile	Seyoum.Haile@fao.org
Vita	Mr John Weakliam	John.weakliam@vita.ie
EIDP	Mr Iyassu Ghebrerufael	vita.eritrea@gmail.com
Secretariat	Mr Kahsay Negash	negashk@gmail.com

Collaboration Agreement and Project Management Handbook

The project partners signed a detailed collaboration agreement (CAg) covering the implementation of the project, including budgeting procedures, payments, record keeping, decision-making, conflict resolution, intellectual property rights and liability. Building on the CA, the PC prepared a Project Management Handbook to support partners in the effective and efficient administration of the project.

Communication and Monitoring/Evaluation

The project team developed a Communications Plan for meeting EU visibility requirements as well as for building effective and coordinated project activities and creating national and international awareness of the project results. The current document is an initial communication plan and the team will update it annually based on analysis of past activities, their effectiveness, including planning new activities, responding to new technology trends, suggestions from local communities and demands from stakeholder groups.

The basis for the results-based M&E is the results chain (RC) or intervention logic, which illustrates the causal or logical relationships between the inputs, activities, outputs, and outcomes of the project. As per previous experience working in Eritrea, including on EU projects, results will be measured at three levels; outputs, outcomes and impacts. Following the theory of change, a results framework was developed and the project's newly recruited M&E expert undertook further work on this during Year 1.

Gender Issues

The project team will implement a crosscutting gender strategy guaranteeing that a gender perspective will be integrated into all project components and that climate smart agriculture and dairy value chain approaches will be evaluated on their capacity to promote gender equality. The team has appointed a gender expert, who along with members of the international team, has ensured that gender issues are addressed in the baseline questionnaire. The baseline survey will provide the context-specific data that will enable the project team to set more detailed gender-based targets and actions.

Work package 2: Project Implementation Plan (PIP)

In accordance with the terms of the GC between the EU and Teagasc, the PIP was schedule to be completed over the four-month period of February to May 2020, with input by international project staff and consultants in partnership with MoA and Zoba staff.

The PIP process commenced with an inception workshop in Asmara on 25 February with 60 attendees, including project partners and associates, and staff from FAO, UNDP and the EUDE. The principal output was an agreed schedule of actions intended to culminate in the submission by the due date of the PIP and Year 1 work plan and budget. Among the specified actions, it was agreed that the NPMT would take the lead in setting up project teams in the three study Zobas and that the EIDP would provide all necessary accounting, logistical, recruitment and procurement services to the project.

In advance of the workshop, the project team met informally on a number of occasions in Asmara and team members visited farmers and other value chain actors to build on their knowledge and understanding of the value chain. The project team also met FAO staff to find ways and means to align their DeSIRA –funded project with CSARIDE. The team also met with senior officials in the Ministry to discuss project management and governance structures.

On 26 February, Dr Stephen Onakuse (UCC) facilitated a workshop on value chain mapping for the NPMT and ZT. During the training, Dr Onakuse introduced diagnostic survey tools, questions and formats used in the profiling of the dairy value chain.

The NPMT organized introductory/consultative meetings with value chain actors in each Zoba to introduce the project and secure their interest and support. The Zoba teams also commenced the process of selecting study villages and farmers using agreed criteria. They also initiated the collection of value chain data. This work ceased in March due to the national lockdown resulting from detection of positive cases of Covid-19 in the country.

Arising from the disruption caused by Covid, the PC wrote to the EUDE on 28 April requesting a one-month extension to the PIP. The EUDE responded favorably to the request. While the project teams had to cease all fieldwork in March, the IT and the NPMT continued to develop other aspects of the PIP. The following is a summary of outputs to date:

Table 4: List of Outputs from the PIP Process

Reports	NARI	Extension	AI Service	Zobas	HAC	MoA	Other
Self-Assessment	X	X		X	X		
Implementation Plans	X	X	X	X	X	X	(a)
Others (b)							

- (a) Value chain development; Dairy Commodity Platforms; Forage Commodity Platform; Capacity Development and Knowledge Management.
- (b) Gender policy; Communications policy; Tender document for baseline study'

In view of the ongoing lockdown in Eritrea and its negative impact on the PIP process, the PC communicated with the EUDE on 11 June and both parties agreed to postpone further work on the PIP pending the lifting of the lockdown. The PC submitted to the EUDE the draft documents listed above, along with an overall summary of progress and proposals for a scaled down implementation plan for Year 1. The focus of the scaled down plan was on rolling out a number of pilot initiatives in Zoba Debub. However, in view of the continuing and widening impact of the pandemic, it was only possible to begin limited work on the proposed initiatives.

Towards the end of the reporting period, the project team hired an M&E expert who began work on refining the project log frame in association with team members.

Following a tendering process, the team selected a consultant to undertake the baseline survey. The consultant developed survey tools which were shared and with team members and refined through a process of consultation. The consultant is ready to commence the survey as soon as the Government lifts travel restrictions in Eritrea.



International project team members visit to smallholder dairy farms, Zoba Anseba

Work package 3: Improved climate smart dairy farming production and productivity

The key objectives of this WP are:

- (1) to identify a menu of intervention options, (e.g. breed of cow, feeding systems, credit facilities, processing and marketing options, which will be implemented along the value chain;
- (2) to facilitate the identification, targeting and promotion of specific improved technologies and organizational and institutional innovations to develop the dairy value chains of selected regions.

The self- assessment reports and rapid diagnostic surveys prepared by the State institutions (WP2) assisted in providing an overall idea on the challenges and opportunities for growth of the DVC. These reports also assisted in identifying target intervention areas (target sub-Zobas) within each of the three selected Zobas involving the use of objective criteria and a participatory process. The self- assessment reports also identified in a general sense the areas of support required from the CASRIDE project, which assisted in the preparation of the draft PIP report. Based on these reports, the team prepared and submitted to EUDE a preliminary draft intervention plan for dairy value chain initiatives.

However, as already indicated, the impact of COVID-19 has restricted further development of the diagnostics process to identify and characterise the VC actors, their needs, capacities and constraints. Notwithstanding this set back, the local teams did undertake some important capacity building actions to support dairy farming production and productivity.

The teams commenced work on the revitalisation and strengthening of the capacity of the National AI Centre. Firstly, it arranged for the purchase of spare parts for the Centre’s Liquid Nitrogen Plant (LNP) in Asmara, which had been out of action for some time. The team also purchased 4,000 semen straws from Ireland for mass insemination. Finally, they organised a three-week practical and theoretical training course for 10 (0 female) new AI technicians identified by the Maekel, Debub, Anseba and Gash-Barka MoA regional offices.



LNP Plant, Asmara

An MoA IT expert developed a web-based dairy database system and mobile application for data collection. Dairy experts representing Maekel, Debub, Anseba, Northern Red Sea and Gash-Barka regions were given three days’ training on the basic features and use of these applications. The team will disseminate the applications more widely as soon as planned testing is completed in Zoba Maekel.

The NPMT carried out a technical assessment of the Encode Milk Collection and Cooling Centre in Zoba Anseba with a view to bringing it back into use following a long period of inactivity. Following a tendering process, the team selected two contractors to undertake building rehabilitation, pipeline works and solar system installation. The contractors completed the necessary works in the reporting period.



Milk collection and cooling centre at Encode, Zoba Anseba, prior to refurbishment.

Work package 4: Enhanced organizational capacity and enterprise skills of dairy value chain actors with capacity to adopt/promote new technologies

The overall objective of this WP is to improve the capacity of the actors along the value chains and of the support services at village to national levels to develop the selected dairy value chains and to respond to changes in market and natural resources conditions within and beyond the target areas.

The project team developed a draft intervention plan (sent to EUDE) which builds on the diagnostic studies undertaken locally as well as on the experience gained from other initiatives abroad (e.g. the Ethiopian LIVES project led by ILRI, and FAO programmes in various countries). The intervention plan considers (i) capacity building and (ii) knowledge management.

Members of the project team have held various discussions with FAO and IFAD, both of whom are working on agricultural development projects in Eritrea. The CSARIDE team is committed to reaching agreements with both organisations in the area of capacity building, as both have budgets for this activity. We have already reached agreement to work directly with FAO in a needs assessment they plan to undertake, meaning that the results of the FAO activity can feed directly into CSARIDE.

The project budget provides for M.Sc. level training for up to 28 staff distributed between NARI, HAC, MoA ED and the wider MoA. In addition, it makes provision for training three staff members to PhD level. In the reporting period, two NARI staff commenced their M.Sc. studies (one in the University of Nairobi and one in University College Dublin). Three further staff members from NARI have registered to commence their M.Sc. training in the next academic calendar (first quarter of 2021). The agreement for the M.Sc. training programs stipulates that students will focus on dairy and forage value chain development challenges for their theses. This research will contribute to the industry-relevant research output of NARI. It is also agreed that members of the IT will participate in the students' research supervisory teams.

During the reporting period, members of the IT engaged with HAC with a view to supporting the introduction of more practical modules into the curriculum in order to ensure greater coherence with the needs of the industry. Discussions were also held regarding the reactivation of the Master's degree programme in HAC. A revised Master's degree programme would support graduate training at NARI, Extension service, MoA, and other service providers in country. The international team is also focusing on practical training around farm management and helping to identify requirements for laboratory and farm upgrades.



Cows at Hamelmalo College

Work package 5: Enhanced service delivery and support of institutional actors on climate smart innovation, and knowledge management along the dairy value chain

The overall objective of WP5 is to improve the research and development capacity of key national institutions so they can have the capacity to provide information in the short term in support of project dairy value chains and in the longer term to provide information to guide national policy

The draft PIP report has documented the overall country context and identified potential risks involved and their level of influence on implementation of agreed interventions. The report has also indicated the significant challenges involved in attempting to strengthen value chains in a situation where value chains are not well organised and, for the most part, continue to operate in a highly informal manner, and where the role of the private sector is underdeveloped.

Based on the mitigation measures proposed, it has indicated the need for undertaking participatory action research to select, test and adapt innovations backed by effective support for the adaptation process and prioritise projects that can be implemented by national/Zoba teams.

NARI has established a model dairy farm at Halhale research station to undertake research and demonstration on: forage- based production systems; trials for calf starter preparation and feeding; small-scale silage conservation. In the reporting period, a derogation request for using local cattle procurement procedure for purchase of dairy cattle for the planned cattle breeding program at the nucleus herd breeding center was approved by the EUDE.



Cows at NARI Research Centre

NARI has submitted a detailed proposal for a new problem- oriented research agenda to the project management team. The proposal identifies the following priority issues for research:

- Evaluation of a range of forage crops to meet nutritional needs of dairy cattle
- Assessment of dairy management practices in relation to animal health and welfare
- Evaluation of strategies for conserving forage for the dry season period in Eritrea
- Strengthen the animal nutrition laboratory
- Undertake an assessment on cost-effective alternative sources of grain-based calf starter.

It has also printed and introduced 300 individual cow performance cards for recording and monitoring overall cow performance and assisting in livestock management decisions. Halhale and Goluj research stations will use the cards and will distribute them to beneficiary farmers.

Further, in order to strengthen NARI’s networking with regional and international research centres for knowledge development and experiences sharing, the PM and three NARI staff representing the NPMT made a seven-day visit to Ethiopia to observe experiences and draw lessons from success stories in dairy value chain development projects in Ethiopia. During the visit, NARI staff requested different forage species available at ILRI to support its research on evaluating different forage seeds grown under rain - fed farming. They secured availability of Vetch seed (*Viciasativa*).

Table 5 Detail of the exchange visit organised from 17-22 February 2020

S. No	Organization	Date visited	Topics discussed
1	ILRI campus	17/02/2020	Preservation of forages
2	ILRI campus	18/02/2020	Agro-ecology-based production of forages
3	Silotamilk processing plant	18/02/2020	Milk collection, handling and milk products processing in Silota area
4	EthioFeed	19/02/2020	Innovative feed solutions in the dairy value chain

5	ELPIS AI solution	19/02/2020	The challenges and opportunities of the privatization of Artificial Insemination
6	NAGIIE campus	20/02/2020	The role of public sector in the genetic improvement of the dairy breeds
7	ILRI campus	20/02/2020	The role of innovative extension systems in the dairy value chains.



The NPMT visiting ILRI forage research site and Adama animal feed processing plant

The current extension system in Eritrea is production focused and has limited access to value chain development or market-oriented extension approaches. It is suggested that the CSARIDE project should work within the existing extension system to introduce; (i) value chain/market -oriented extension approach; (ii) a climate smart approach to extension initiatives with a purpose of ‘Greening’ the value chain. It is anticipated that change within the existing extension system will be facilitated by (i) staff participating in training/capacity building programs; (ii) providing services within proposed Technology Platform initiative in support of dairy value chains; and (iii) Testing new approaches on service delivery on a pilot scale within selected dairy value chains.

HAC staff and two staff from University College Dublin (Dr Monica Gorman and Prof Jim Kinsella) briefly reviewed the curricula for the suite of undergraduate programmes at the College in mid-February 2020. This brief preliminary review pointed to some of the areas in which curriculum development could happen as well as some of the areas of interest (research topics) for problem-oriented research to be undertaken by staff and students of the College. The review informed the development of an agreed HAC Development Plan by June 2020, which accepted that any curriculum development work in Year 1 would be initially confined to working within the existing curriculum to see how best existing modules could be strengthened in the areas of: value chains, climate smart agriculture and knowledge transfer. The constraints imposed by Covid-19 meant that the work that was scheduled to be undertaken in advance of the new academic year on curriculum development could not take place. In addition to this, the Higher Education Authority in Eritrea decided to stop the delivery of postgraduate programmes in all colleges, including HAC, thus preventing the start of CSARIDE Project-funded MSc studies in the academic year 2020/21. Subsequently, the staff at HAC started the process of identifying modules that can be worked on in the 2020/21 academic year in terms of the addition of new information, new methods of assessment and additional teaching resources. This work is on going and is being supported by UCD.

Work package 6: Increased access to information and knowledge on CSA practices, tools and approaches for the wider public

The overall objective of WP6 is to facilitate the promotion and dissemination of principles and good practices for the development of dairy value chains beyond the study areas in Eritrea.

While no progress was made on this WP during the reporting period, the project team has developed a draft intervention plan for future implementation. It is proposed to establish a Training/Learning Centre as well as a Knowledge Platform in collaboration with FAO (discussion ongoing). This provides an opportunity for CSARIDE and the DeSIRA project led by FAO to combine to develop this capacity within Eritrea.

The Training /Learning Centre and Knowledge Platform should go together because there is a lot of synergy between them. FAO has also strong expertise in both. FAO International will support the Unit through making available material from its Training and Learning Centre (TLC). Other Training providers with expertise in dairy value chains can also provide training and learning material (e.g. ILRI and Teagasc).

FAO (International)¹ has a Sustainable Food Value Chains Knowledge Platform. This global knowledge platform provides a user-friendly gateway to practical guidance and information on the development of Sustainable Food Value Chains (SFVC). Underpinning the platform is a community of members, which facilitates networking and the exchange of ideas among policymakers, project designers, field practitioners and other people working on topics related to SFVCs

The availability of FAO Knowledge platforms along with other providers in region (e.g. ILRI) will greatly support the development of food value chains in Eritrea and will enable the Eritrean experience by virtue of CSARIDE to be shared with a global audience.

Promotion, Documentation and Monitoring

Research results will help create new knowledge for policy influencing. These results will be analysed and developed into Policy Briefs and presented to the Ministry of Agriculture organs for further scrutiny and debate.

Research results will be synthesized and analysed to develop new knowledge and information that will be used to boost dairy productivity at smallholder farmer level. This knowledge will be incorporated into information materials in form of booklets and leaflets for farmer education and training. Dairy farmer groups will be organised to form farmer innovation clusters that help in disseminating new knowledge and innovations developed by other Work Packages involving research.

The baseline report will provide good information relating to refining project indicators and this will facilitate on-going monitoring and evaluation during project implementation.

Explain any problems (e.g. delay, cancellation, postponement of activities) which have arisen and how they have been addressed (if applicable)

As we have already indicated, the biggest unforeseen problem encountered was the outbreak of Covid-19 in mid-March and the mitigation measures adopted by governments globally and in Eritrea. As the pandemic grew in Eritrea following diagnosis of a first case on 21 March, the Government decreed a nationwide lockdown, banning all international flights and non-essential internal travel. In effect, this led to the cessation of all project fieldwork.

In addressing this problem, the PC wrote to the EUDE on 28 April requesting a one-month extension to the PIP, which was granted on 30 April. While work on the ground came to a halt in March, the project partners continued to work on the PIP documentation. At a review meeting with the EUDE on 11 June the parties agreed to postpone further work on the PIP pending the lifting of the lockdown and to submit a draft of the PIP plan and associated documents. The PC submitted draft PIP documentation on 30 June and he subsequently revised it on basis of comments received from the EUDE. The parties also agreed on proposals for a scaled-down first year implementation as part of the PIP, with an initial focus on rolling out a number of pilot initiatives in Zoba Debub before rolling them out to the other two Zobas

¹FAO website

subsequently. However, in view of the continuing and widening impact of the pandemic, it was possible to begin work on the ground on only a small number of these initiatives.

In the absence of international travel and in-country movement, the project team used Zoom and other virtual media to communicate and to agree on the various activities that we described earlier in this report.

Two further unforeseen events also affected in a negative manner on the implementation of the project. Firstly, Dr Azage Tegegne, an internationally distinguished Ethiopian Livestock Specialist, who had joined the project team in 2019, passed away following a short illness. Dr Azage had over 30 years of research experience in ILRI and had led the LIVES project (Livestock and irrigation value chains for Ethiopian smallholders) in Ethiopia. In the short period Dr Azage worked with us, he made a huge contribution to the development of the project and to ideas around project implementation. In addition, his warm, friendly personality and wonderful sense of humour was a huge personal loss to all of us. His departure left a large void, which we filled subsequently through the recruitment of Dr Getachew Gebru, also a livestock specialist from Ethiopia.

A second loss of a highly valuable team member occurred in October 2020 with the departure of Dr Seamus Cross, a highly experienced international scientist in the area of livestock systems. Dr Cross had over 10 years' experience of working in Eritrea and had been involved from the outset in the development and planning of the project proposal. He had also led the development and implementation of the Pilot Dairy project in Eritrea, which provided the basis for the DeSIRA grant application. His departure also left a huge void, which has been difficult to fill.

List any risks that might have jeopardised the realisation of some activities and explain how they have been tackled

The project team included a Risk Register in Annex 1 of the original grant application form: the team updated the Register in the draft PIP documentation, which they submitted to EUDE in June 2020. The revised Register identified Covid-19 as a new operational risk for the future and listed the following mitigation measures:

- Maintain ongoing communication with EU Delegation Office
- Build strong communication network with teams in Eritrea
- Agree revised implementation plans with EU Delegation and partners/associates
- Prioritise projects that can be implemented by national/Zoba teams with less international inputs.

The Register also listed risks relating to inability to recruit local project staff and staff turnover as further operational risks. We have referred to problems arising from staff turnover in the previous section. We have already had to deal with risks associated with lack of expertise in Eritrea and are dealing with those in the short term through international recruitment. In the longer term, these risks are being addressed through capacity development of local staff.

2.3. Log-frame matrix updated

The M&E expert (Mr Yisehak Kiflay Naizghi) is currently revising the log frame matrix in light of information emerging during the preparatory work and from the additional inputs made by the NPMT and the three Zoba teams. The revised log frame matrix with baseline values established for key indicators will be shared with the EUDE together with the baseline report once the survey is completed.

2.4. Updated action plan

Please provide an updated action plan for the future activities of the project²

The project team is working on the Year 2 action plan and budget and indicative overall plan for the duration of the project. We will submit the final document once completed. In the meantime, the following table provides an indicative action plan for the year to guide joint monitoring of the project actions.

Year 1													
	First Half-year 2						Second Half-year 2						
Activity	1	2	3	4	5	6	7	8	9	10	11	12	Implementing body
PHASE 1: PREPARATION OF THE PIP													
1. Pre-activities- preparation stage: project planning													
1.1 Recruit key staff positions and gear up EIDP													Teagasc, co-applicants and MoA.
1.4 Develop effective strategic, administrative, financial and technical reporting systems													Teagasc
1.5 Conduct socio-economic baseline survey													Teagasc, associates & EIDP Office
2. Project Implementation Plan													

² This plan will cover the financial period between the interim report and the next report.

2.11 Assess information needs and gaps along the value chain													MoA, NARI, Zoba, Teagasc, VITA and SHA
2.12 Assess environmental impact (EIA) of the project													MoA, NARI, Zoba, Teagasc, VITA, SHA,
3. Project Implementation													
3.1 Implementation of the proposed organizational and institutional innovations and the improved Climate Smart technologies.													MoA, NARI, Zoba, Teagasc, LUKE, UCC, UCD and VITA
3.2 Implement targeted action research to identify and/or adapt the required technical and/or non-technical solutions.													MoA, NARI, Zoba, Teagasc, LUKE, UCC, UCD and VITA
3.3 New Climate Smart research agenda developed with NARI along with investment in livestock and research support facilities with a focus on innovative adaptive research.													Teagasc, NARI, LUKE
3.4 Develop the capacity of MoA Extension Department to (i) strengthen extension service and (ii) improve national services including AI etc.													MoA, NARI, Zoba, Teagasc, LUKE, UCC, UCD and VITA
3.5 Develop the capacity of HAC to deliver high quality education to graduates.													UCD, UCC, Teagasc consultants

3. Beneficiaries/affiliated entities, trainees and other cooperation

3.1 Assessment of the relationship between the beneficiaries/affiliated entities of this grant contract

The lead applicant and primary coordinator of the grant is Teagasc, which has forged a consortium partnership with experienced European Universities and research centres (UCD, UCC and LUKE) and two Irish international organisations, SHA and VITA, as co applicants. Teagasc, LUKE, UCD, UCC and Vita will deliver the specialised facilitation and technical services within their mandated roles to support project management and to ensure the incorporation of appropriate CSA practices during implementation. As lead applicant, Teagasc is responsible for signing and managing all contracts. These key international actors have the expertise and experience on the key components of the project and are key ‘players’ in facilitating learning and experience-sharing among the local actors on CSA, institutional capacity building and dairy value chain management.

In addition, local organisations such as the Ministry of Local Government and the National Union of Eritrean Women (NUEW), having signed the associate role, will play a key role in various participatory activities at local level. Through their grassroots associations and village development committees, these associates will participate as stakeholders in the identification of target sites, beneficiary selection, community mobilisation, and engagement of local stakeholders.

The Ministry of Agriculture and its Departments of Extension and Research are also associates to the contract.

NARI is the focal agricultural research institute in the country. NARI has been engaged in research programs on different commodities, including scientific and adaptive research. It has also been involved in research- led community-based development projects such as seed multiplication and potato projects with the lead applicant and the co-applicants. Through this project, NARI as the national research center, will be strengthened to provide climate smart and adaptive research and knowledge development to support the DVC development. Similarly, AED has been implementing various projects related to animal resources and livestock development, crop production and natural resources management jointly with the applicant and the co applicants. As lead extension agency, AED will have a role in supporting the dissemination of CSA practices and improved knowledge and extension messages to all actors along the DVC.

At the national level, the Eritrea-Ireland Development Partnership Office (EIDP)³ will provide all necessary support for managing project activities and interlocking between international and national actors. The EIDP has the experience, expertise, local knowledge, relationships and resources to ensure an effective implementation partnership with the local stakeholders.

Hamelmallo Agricultural College (HAC) is the leading agricultural college of education and research in the country. It has produced high-level experts to support the agricultural and rural development efforts of the Nation. It is also conducting research on vegetables, cereals and livestock development. HAC will be supported through the reactivation of its MSc program and curriculum revision to better support knowledge development and human resource development components of the project. These parties to the contract have successfully implemented different projects in the past, and lessons learnt from these experiences have been the basis for designing of the project. This partnership will support proper implementation of the planned action and improved local capacity for managing project results following the conclusion of the project.

3.2 Assess the relationship between your organisation and State authorities in the action countries? How has this relationship affected the action?

Relationships with State authorities are excellent. Teagasc has a particularly strong and trusting relationship with all of the key State authorities, including the MoA, NARI, Extension Service and HAC,

³EIDP is a partnership structured under an MoU between MoA, Teagasc, Vita, and SHA, with an office in Asmara.

having worked on various projects in the country for almost a decade. In that period, as well as directly working on the ground, Teagasc has supported fellowships to enable one NARI researcher undertake a PhD and has supported four M.Sc. students, as well as providing short-term training in Teagasc for a number of other NARI. We have also invited staff from State bodies and the private sector to Ireland for short-term training and welcomed the Minister for Agriculture to Ireland on an educational visit in 2018. The relationship with the MoA is further strengthened in that the PM is on secondment from the Ministry. These relationships will have a very positive impact on the implementation of the action, as they mean that the actions will be built on existing strong foundations, including deep knowledge of the country, of its agriculture and of the key decision makers in both the public and private sectors. In addition, they mean that we will be working directly with some key people whom we have supported for postgraduate and short-term training in Ireland and in other countries.

Similarly, VITA/EIDP has over twenty years' experience of working in Eritrea and Vita is considered as a key player, vital in responding to emerging needs and addressing programmatic gaps not always covered by other development partners. VITA, with its long years of strong partnerships with the Government, continues to be a trusted development partner and Vita/EIDP's comparative advantage on understanding national context is a strong advantage to the consortium partnership.

Teagasc, SHA and VITA have jointly worked in the EIDP program for the past three years on seed system improvement, the Dubarwa pilot dairy project and other natural resource programs targeting key technology transfer, technical advice and sharing of best practices between Ireland and Eritrea as relevant mechanism to addressing food and nutrition security.

The State authorities are associates to the contract and they will have an active role in the implementation of the project in their mandated areas of responsibility. Hence, they will support the implementation of planned actions and they are expected to facilitate engagement with local stakeholders and policy makers.

3.3 Describe your relationship with any other organisations involved in implementing the action:

- Associate(s) (if any)
- Contractor(s) (if any) Consultants?
- Final beneficiaries and target groups

All of the Associates with whom we are working, with one exception, belong to the public sector and we have referred to them above: the exception is the National Union of Eritrean Women (NUEW).

In Eritrea, women contribute a considerable amount of labour in the agricultural production system, estimated to average 80%. There is a growing concern that women and other disadvantaged groups may miss the benefits arising from the enhancement of market-oriented production and marketing of high-value commodities. Gender concerns will, accordingly, be a primary concern of the project implementation phase, with the overall objective of empowering women and other groups to participate more fully in all aspects of the dairy value chain and thereby contribute to the attainment of project outcomes and outputs. As such, it is important that the project link in with the NUEW and other women's groups from the outset.

Teagasc has worked indirectly with the NUEW, but one of our key partners, Vita, has a long history of working with women's groups in Eritrea, including the Eritrean Women in Agribusiness Association (EWAA). Vita has empowered rural women through the provision of firewood-efficient locally made cooking stoves, "*Adhanet*", and enhanced access to clean source of water by maintaining manually operated water pumps. These interventions have contributed to the reduction of firewood consumption and negative health impacts

The target groups will be all the actors along the dairy value chain, with a new emphasis of involving the private sector. These include:

1. resource-poor livestock farmers;
2. private and cooperative input and output market agents and service suppliers, including milk collection and processing entities, as well as AI and veterinary services;
3. small scale entrepreneurs (e.g. National Union of Eritrean Women) and
4. public-sector bodies including the National Agriculture Research Institute (NARI), Hamelmalo Agricultural College (HAC), MoA (mainly AED), and regional governments (Zobas).

In addition, the project will affect the following final beneficiaries:

1. unemployed youth who will benefit from additional employment opportunities flowing from a more productive farming sector and stronger overall value chain;
2. consumers of the new high-value dairy products who will enjoy greater availability of more cost-effective, quality products; and
3. national economy which will benefit from increased employment, additional food exports and reduced food imports.

Teagasc has established excellent relationships with all of the private sector target groups over the past decade. We are familiar with the issues and know key leaders involved. Based on our experience of agricultural development in Ireland, our approach to this project will be to:

- create a multi-stakeholder partnerships that will empower smallholder dairy farmers;
- facilitate private sector investment along the dairy value chain;
- strengthen human and institutional resources of the public research and extension services to accelerate the impact of innovation at scale, particularly in the context of the severe climate change impacts expected in Eritrea.

As experience from other countries has shown, to be successful in developing a value chain, innovation systems approaches are required that include, from the start of the diagnostic process, a wide range of the stakeholders who participate in joint problem identification and analysis. This enables expert and research knowledge to be integrated with local and indigenous knowledge, market intelligence (including prevailing regulatory and policy environments) and consumer demands. A fully participatory approach will be adopted to developing a menu of interventions that can be applied along the value chain and in the testing, adaptation and validation of those options.

This project will involve working local government units, as the focus will be on three study Zobas. Again, Teagasc and its partner Vita are familiar with the local government structure and institutions in Eritrea and have established some good working relationships over the years.

3.4 Where applicable, outline any links and synergies you have developed with other actions.

CSARIDE will build on the work invested over a number of years in a pilot dairy project, the Dubarwa Pilot Community Dairy Project, funded by the Irish Government and Teagasc.

This project was designed to improve local food security through access to reliable source of milk and improved household incomes by implementing a cooperative dairy model that can be replicated across Eritrea. Maximum attempt was made to introduce better performing dairy cattle breeds that are adaptable to the climatic conditions of the area, and improving the available forage resources. This project leveraged the expertise of Teagasc using the very best of Irish expertise in dairy herd production and management together with Ireland's experience of cooperative development, as well as its expertise in research, extension and farmer capacity building to help Eritrean farmers establish successful, modern dairy farms.

The project has helped improve farmers' and extension agents' knowledge and skill on dairy husbandry and has demonstrated that forage- based dairy production is suitable in small- scale village level farming systems in Eritrea provided that appropriate breed is selected. In addition, it has built good expertise in

NARI in all aspects of forage production and has created a good floor to strengthen the research-extension-farmers linkage at all levels.

Similarly, IFAD as a major development partner in Eritrea, has made considerable investments in the past 20 years to boost agricultural production, enhance the resilience of smallholder farmers and contributed to the HH improved food and nutrition security through different program portfolios including PCRRDP and NAP projects. Currently, the MoA has signed a new five-year contract (starting mid-2020) with IFAD towards implementation of the Integrated Agriculture Development Project (IADP). The CSARIDE project will draw lessons from previously implemented projects and work synergistically with ongoing programs for better outcome for enhanced CSA dairy value chains that impact for better food and nutrition security and youth employment creation.

Further, the PC has initiated consultation with IFAD Rome to encourage synergy between the IADP and CSARIDE, both in capacity development, targeting and synergizing larger investment for better outcome for development of CS dairy value chains, in particular, and the livestock development sub-sector in general.

CSERIDE will also add value to previous investments made by the EU in support of the Eritrean agriculture sector. In particular, the 10th EDF project 'Support to Agriculture/Food Security in Eritrea' has made considerable investments in support of dairy sub-sector through dairy cattle provision as well as investments in milk cooling facilities and strengthening dairy associations in Zobas Maekel, Gash Barka and NSR. Lessons drawn from the implementation of these actions will be systematically collected and documented for further learning.

We are building links and synergies with the ongoing TAP/FAO DeSIRA-funded project. So far, we have held a number of virtual meetings with FAO HQ in Rome and with FAO representatives in Asmara. As a result, both parties are fully aware of each other's DeSIRA projects and are fully committed to working together to ensure that the DeSIRA funding is used in the most effective manner. Besides, the PM is a member of the Country Project Team (CPT) of TAP-AIS and has participated in several virtual team meetings and related activities. Furthermore, the EU 10th EDF funding (Euro 41 million project) that focused on supporting the agricultural sector has contributed a lot in strengthening the dairy industry through the supply of equipment to dairy cooperatives, provision of training and acquisition of various veterinary supplies and stand-alone photo voltaic materials.

3.5 If your organisation has received previous EU grants in view of strengthening the same target group, in how far has this action been able to build upon/complement the previous one(s)? (List all previous relevant EU grants).

This is the first grant contract with the lead applicant. However, the co-applicants (SHA and VITA), as well as the MoA, have implemented a number of collaborative projects. CSARIDE will draw lessons from earlier projects implemented in the sector, while also creating synergies with on going investments.

3.6 Where applicable, include a traineeship report on each traineeship which ended in the reporting period to be prepared by the trainee including the result of the traineeship and assessment of the qualifications obtained by the trainee with a view to his/her future employment.

NONE

4. Visibility

In accordance with Article 6 of the general conditions applicable to European Union (EU)-financed grant contracts for external actions⁴, the project beneficiaries will publicise the role of the EU in financing the project, and all publicity measures will comply with the specifications set out in the EU's


⁴https://ec.europa.eu/clima/sites/clima/files/paris_agreement/docs/annex_g_ii_general_conditions_en.pdf

Communication and Visibility Requirements document.⁵ In particular, under Article 6.2 of the general conditions, the beneficiary has prepared a communications plan for the approval of the European Commission (EC) and will report on its implementation under Article 2. In particular, the beneficiaries will comply with the requirements to display the EU emblem on project publications, websites etc., along with appropriate text. The project partners will also inform local authorities and relevant stakeholders that the action is being implemented with EU financial support.

The European Commission may wish to publicise the results of action. Do you have any objection to this report being published on the website of DG International Cooperation and Development? If so, please state your objections here.

NO.

⁵https://ec.europa.eu/europeaid/sites/devco/files/communication-visibility-requirements-2018_english.pdf

Name of the contact person for the action:	Dr Lance O'Brien
Signature:	
Location:	Teagasc HQ, Oak Park, Carlow, Co Carlow, IRELAND
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