



BUILDING CLIMATE RESILIENCE FOR FOOD AND LIVELIHOODS IN THE HORN OF AFRICA (BREFOL)

Djibouti, Ethiopia, Kenya, Somalia, and South Sudan

Annex 2.6. Feasibility Study for the IGAD Region



**FEASIBILITY STUDY OF THE PROGRAM TO BUILD
RESILIENCE FOR FOOD AND NUTRITION SECURITY IN
THE HORN OF AFRICA**

REGIONAL STUDY

**BUILDING CAPACITY OF
IGAD/IDDRSI/IGAD-CENTERS
IN THE PROVISION OF CLIMATE SERVICES
&
SUPPORT FOR TRANS-BOUNDARY LANDSCAPE
MANAGEMENT SERVICES**

**ECU/GAIC Consultants
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ACRONYMS AND ABBREVIATIONS

ACREI	Agricultural Climate Resilience Enhancement Initiative
ACMAD	African Centre of Meteorological Applications for Development
ADF	African Development Fund
AfDB	African Development Bank
ASALs	Arid and Semi-arid Lands
BORESHA	Building Opportunities for Resilience in the Horn of Africa project
CEWARN	Conflict Early Warning and Response Mechanism (Program)
CGIAR	Consultative Group for International Agricultural Research (former)
CPMR	Conflict Prevention Management and Resolution
CBCWG	Cross-Border Cooperation Working Group
CSA	Climate Smart Agriculture
CSV	Climate Smart Villages
DRM	Disaster Risk Management
DRSLP	Drought Resilience and Sustainable Livelihoods Program
EAC	East African Community
FAO	Food and Agriculture Organization
FNS	Food and Nutrition Security
GCF	Green Climate Fund
GEF	Global Environmental Facility
GAIC	Groupe Africain d'Ingénieries Conseils SA
GHACOF	Greater Horn of Africa Climate Outlook Forum Environmental
ECU	Experts Consultants United
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
IBLI	Index-Based Livestock Insurance
ICARDA	International Centre for Agricultural Research in the Dry Areas
ICRAF	World Agroforestry Center
IFPRI	International Food Policy Research Institute
IGAD	Intergovernmental Authority on Development
ISS	Integrated Safeguards Systems
IWRM	Integrated Water Resource Management
IDDRSI	IGAD Drought Disaster and Sustainability Initiative
IDDRSI-PCU	IDDRSI Platform Coordination Unit
ICPALD	IGAD Centre for Pastoral and Livestock Development
ICPAC	IGAD Climate Prediction and Applications Centre
IFRAH	IGAD Food Security Nutrition and Resilience Analysis Hub
ILRI	International Livestock Research Institute
IPCC	Inter-governmental Panel on Climate Change
LEGS	Livestock Emergency Guideline and Standards
LITS	Livestock Identification and Traceability
LMIS	Livestock Market Information System
MIS	Market Information Systems
NAPA	National Adaptation Plan of Action
NDC	National Determined Contributions
NIC	National IDDRSI Coordinator
NIC/GOV	National IDDRSI Coordinator in collaboration with Lead Government Agency
NMHS	National Meteorological and Hydrological Services
NOAA	National Oceanic and Atmospheric Administration

PCU	Platform Coordination Unit
DNA	Disaster Needs Assessment
PICSA	Participatory Integrated Climate Services
PPP	Public Private Partnerships
RCMRD	Regional Centre for Mapping of Resources for Development
RISP	Regional Integration Strategy Paper
RPLRP	Regional Pastoral Livelihoods Resilience Project Experts
SEC	Consultants United INC
SECCCI	Southwest Ethiopia-Northwest Kenya Marsabit Borana and Darwa and Kenya-Somalia-Ethiopia project
SESA	Strategic Environmental and Social Assessment
SFN	National Focal Structures
TAAT	Technologies for African Agricultural Transformation
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Programme
WB	World Bank

1. INTRODUCTION

1.1 Context and authorization of the study

The Multinational Drought Resilience and Sustainable Livelihoods Program - DRSLP is a long term IGAD and African Development Bank program which seeks to build resilience to drought and Climate Change, improve community livelihood and promote regional integration in the Horn of Africa. It was designed to be implemented in three phases of five years each. The first phase of the program was expected to last from 2013 to 2017 but it was extended due to start-up delays. The ending phase 1 program (DRSLP – 1) aims to improve the drought resilience of arid and semi-arid land communities by contributing towards poverty reduction, food and nutrition security, improved rural incomes and consequent accelerated sustainable economic growth in the Horn of Africa. The technical endorsement to pursue the second phase of the program was instigated by a program identification mission jointly undertaken by the African Development Bank and IGAD in June of 2019. A key outcome of the mission was the determination of a second phase of the program, titled; “Program to build resilience for food and nutrition security in the Horn of Africa”. To implement recommendations of the mission related to the second phase of the program, the current study seeks to assess the institutional, social and environmental factors of influence, across the entire agro-silvo-pastoral and fisheries value chains in the IGAD region, including challenges encountered and lessons learnt from the ending DRSLP – 1 Program.

1.2 Scope of the study

The Program to build resilience for food and nutrition security in the Horn of Africa (DRSLP-2) is expected to be implemented through 4 components, namely;

- I. Strengthening resilience of drought prone areas and agro-sylvo-pastoral and fisheries production systems to climate change;
- II. Supporting agro-business Development;
- III. Strengthening adaptive capacity to climate change;
- IV. Program coordination and management.

This regional segment study specifically concerns Component III, Component IV and specific activities under Components 1 and 11 better addressed by regional thinking and some based in clusters. While the bulk of components I and II of the DRSLP will be implemented by IGAD member countries using FAD funds allocated by the Bank, components III and IV of the program will be executed by the IGAD Secretariat. The implementation of Components I and II activities requiring regional thinking will also be overseen by IGAD. The regional approach was adopted by the Nairobi Heads of State Summit of 9th September 2011, which called for enhanced regional partnership to eradicate drought emergencies in the Horn of Africa. As the response had to be regional in nature, it was agreed during the referred Summit that implementation of the regional initiative will be led by IGAD, through the IDDRSI Platform, considered the most effective mechanism for coordination. Also, based on AfDB’s experience that drought related problems can never be solved by individual countries, its ‘Priority program to catalyze climate investment in the Sahel “PPCI-Sahel, 2020-2025” which provides the framework for support to the DRSLP-2 Program, proposed to combat climate change by removing common constraints at the regional level. Consequently, the IGAD Secretariat is being strengthened to play the role of regional advocacy among its Member States, by amongst others; ensuring regional oversight and monitoring of the new DRSLP, while AfDB uses the Regional Operation envelop as an incentive for IGAD countries to commit to tackling climate and related drought prone problems of regional magnitude. DRSLP-2 concerns the following countries: Djibouti, Ethiopia, Kenya, Somalia, Sudan and South Sudan. The two other IGAD Member States i.e. Eritrea and Uganda have not yet fulfilled administrative processes to join the Program.

2. METHODOLOGY

The active spread of COVID – 19 in 2020 and 2021 constituting the period of the DRSLP-2 study, and the restriction of incoming flights by governments, meant that other options for collecting information and data for the regional component study had to be sought. The following options were consequently exploited for the collection of data to inform development of the regional study.

2.1. Collation of information during the Mombasa inception workshop.

One key meeting that generated information for this study was the inception workshop on the feasibility study of DRSLP-2 that took place in Mombasa, Kenya on 13th and 14th December 2020. The workshop was attended through in-person and Visio-conference and brought together: experts and subject matter specialists from IGAD Member States, IGAD Secretariat and specialized institutions, IDDRSI Coordinators, the African Development Bank and other development partner organisations, as well as the consultants of the DRSLP-2 study. While the objective of the workshop was to review the inception report and assess the consultants' understanding of the feasibility study, it also provided an opportunity to engage discussions with those directly involved in the implementation of DRSLP-1 at the regional level and receive presentations on regional programs such as Technologies for African Agricultural Transformation (TAAT), Index-Based Livestock Insurance (IBLI), among others. The relevant discussions and regional initiatives were captured in the inception workshop report.

2.2. Documentary research and collection of data from IGAD and AfDB related websites

This involved the exploitation of IGAD and IGAD Centers' web sites, including the parent IGAD website (<https://igad.int/>), which carries information on key IGAD policies such as the IGAD regional strategy, the IGAD regional strategy and implementation plan and others; the IGAD Resilience knowledge portal (<https://resilience.igad.int/>), which carries information on IDDRSI and key resilience strategies such as the IDDRSI Strategy (2019 to 2024) and others, and provides a common platform for disseminating lessons learnt, experiences, and good practices on resilience interventions in the IGAD region and a repository for new and existing knowledge on drought resilience in the IGAD zone; the IGAD Climate Prediction and Applications Centre – ICPAC (<https://www.icpac.net/>), which carries information on ICPAC strategies such as the ICPAC Guide for Engagement in Co-producing Climate Services and others; the IGAD Centre for Pastoral Areas and Livestock Development – ICPALD (<https://icpald.org/>), which promotes amongst others, the development and harmonization of regional livestock and dry-lands policies and related development initiatives in IGAD Member States; the IGAD Conflict Early Warning and Response Mechanism – CEWARN (<https://www.cewarn.org/>) whose mandate is to receive and share information on potentially violent conflicts as well as their outbreak and escalation in the IGAD region, develop case scenarios and formulate options for response, share and communicate information analyses and response options; the African Development Bank website (<https://www.afdb.org>) which carry important policy documents such as the 'Strategy for Agricultural Transformation in Africa' and others.

2.3 Exploitation of DRSLP – 1 Program and partners' project reports

Key DRSLP-1 documents with a regional focus shared by the IDDRSI Program Coordination Unit, included reports from: the IGAD Regional Gender Management Project; the IDDRSI Regional Knowledge Management Project; various AfDB DRSLP-1 project appraisal mission reports and AfDB/IGAD Aide Mémoires; various IGAD and IDDRSI policy and strategy documents; various DRSLP national component reports from which regional lessons were learnt. In addition to DRSLP-1 program documents, other documents were received on regional projects implemented by IGAD partners, including from the: Agricultural Climate Resilience Enhancement Initiative – ACREI; the Building Opportunities for Resilience in the Horn of Africa project (BORESHA); the Support for Effective Cooperation and Coordination of Cross-border Initiatives in Southwest Ethiopia-Northwest Kenya Marsabit Borana and Darwa and Kenya-Somalia-Ethiopia project (SECCCI) and several others. These regional partners' project implementation reports, which all dated 2020, provided key lessons that were captured for the study of the regional segment of the DRSLP-2 program.

2.4 Exploitation of recommendations by regional IDDRSI Platform meetings

Examples of regional meetings that have contributed to this study include: recommendations of the IDDRSI Platform Steering Committee Meeting of July 2020; recommendations of the 7th IDDRSI Platform General Assembly Meeting of March 2021; recommendations of the Cross-border Pastoralist Migration Workshop (Karamoja) of March 2021 and several others.

2.5 Orientations from the May 2021 AfDB/IGAD/Govs/Partners mission

The AfDB/IGAD/Partners DRSLP-2 Project Preparation Mission which took place from 3 to 31 May 2021 involved the participation of the IGAD Secretariat, its Divisions, specialized centers and others. An outcome of the mission that affected the regional level program is the identification of some regional activities in Components 1 and 2 of DRSLP – 2 previously wholly dedicated as national program components. The adoption of these activities, perceived to be based on regional thinking, depended on the outcome of field study reports submitted by national consultants.

2.6 Limitations

The feasibility study of DRSLP-2 was expected to depend on contact with people, both individually and through meetings for the collection of data, including data for the regional component study. Meanwhile, there was a tendency for the COVID – 19 pandemic to scare consultants from physically participating in meetings or travelling, with the latter made difficult by government restrictions on travels in the IGAD region, resulting in a slow data collection process. It is for these reasons that the regional component study resorted to exploit other avenues to obtain data as narrated in the beginning of this section.

3. PRESENTATION OF IGAD AND THE REGIONAL COMPONENT OF DRSLP - 1

3.1 Brief description of IGAD and its institutional affiliates

IGAD was created with headquarters in Djibouti, in 1986 by the Heads of State of Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda, and joined later, in 2011 by South Sudan. IGAD's mission is to promote regional cooperation and integration, to add value to Member States' efforts in achieving peace, security and prosperity. IGAD's strategic priorities and core mandate reflect the region's greatest single defining imperative – which is the urgent need to build resilience of countries and communities in the Horn of Africa to the region's environmental and socioeconomic shocks, through an integrated regional approach, requiring investments in sustainable development and optimizing the productivity of the region's resources. More specifically, the objectives of IGAD are as follows:

- Promote joint development strategies and gradually harmonize macro-economic policies and programs in the social, technological and scientific fields;
- Harmonize policies with regard to trade, customs, transport, communications, agriculture, and natural resources and environment, and promote free movement of goods, services, and people within the region.
- Create an enabling environment for foreign, cross-border and domestic trade and investment;
- Initiate and promote programs and projects to achieve regional food security and sustainable development of natural resources and environmental protection, and encourage and assist efforts of Member States to collectively combat drought and other natural and man-made disasters and their consequences;
- Develop and improve a coordinated and complementary infrastructure, in the areas of transport, telecommunications and energy in the region;
- Promote peace and stability in the region and create mechanisms within the region for the prevention, management and resolution of inter-State and intra-State conflicts through dialogue;
- Mobilize resources for the implementation of emergency, short-term, medium-term and long-term programs within the framework of regional cooperation;
- Facilitate, promote and strengthen cooperation in research development and application in science and technology.

- Provide capacity building and training at regional and national levels; and
- Generate and disseminate development information in the region

The institutional organization of IGAD is made up of:

- The Summit of Heads of State and Government;
- The Council of Ministers;
- Committee of Ambassadors accredited to IGAD, and
- The IGAD Executive Secretariat (Head-Quarters in Djibouti)

The IGAD Executive Secretariat is made of the following Divisions representing the main areas of cooperation advocated by the organization, as follows:

- The Agriculture and Environment Division (AED),
- The Peace and Security Division (PSD),
- The Division of Planning, Coordination and Partnerships;
- The Division of Economic Cooperation and Integration; and
- The Division of Health and Social Development (DRISD).

IGAD has a number of specialized regional institutions and programs hosted by its Member States, namely;

- The IGAD Climate Prediction and Applications Centre (ICPAC),
- The IGAD Centre for Pastoral Areas and Livestock Development (ICPALD),
- The IGAD Conflict Early Warning and Response Mechanism (CEWARN),
- The IGAD Sheikh Technical Veterinary School (ISTVS),
- The IGAD Food Security Nutrition and Resilience Analysis Hub (IFRAH).

3.2 Brief description of the IGAD region

- The IGAD region covers an area of 5.2 million km² with a current population of just over 250 million people, projected to reach half a billion (500,000,000) by 2050¹
- Three of the 8 IGAD Member States are classified among the least developed countries by the United Nations (see Table 1 further below) i.e. they are characterized by vulnerable economies, low Gross National Incomes (GNI) per capita, while their Human Development Index (HDI) and their Economic Vulnerability Indices (EVI) are among the most unfavorable on the planet.
- Among the eight (8) IGAD Member States, three (3) are land-locked, namely: Ethiopia, South Sudan and Uganda.
- Strong dependence by the populations of the IGAD region on natural resources such as rain-fed agriculture and livestock, which are highly vulnerable and most exposed to climatic hazards, implies that a large part of the population is vulnerable in terms of early mortality, malnutrition, low levels of education, and poor access to drinking water and energy.
- There is also strong annual demographic growth ranging between 2.5% and 3.5% with over 60% of the estimated 250 million people in the region being youth² i.e. thirty years and below, with a consequence that there will be considerable pressure on natural resources and the environment in the region long into the future.
- In addition to the preceding vulnerabilities, the region is characterized by fragile institutions and security challenges and related socio-political conflicts that frequently lead to internally displaced populations.

IGAD strives to pursue regional integration among others, through programmatic approaches such as trans-boundary cluster development and business corridor improvements.

¹ The Horn Economic and Social Policy Institute (2017): Macroeconomic performance of IGAD and the implications of China's economic slowdown

² IGAD (2019). The IDDRSI Strategy (2019 – 2024)

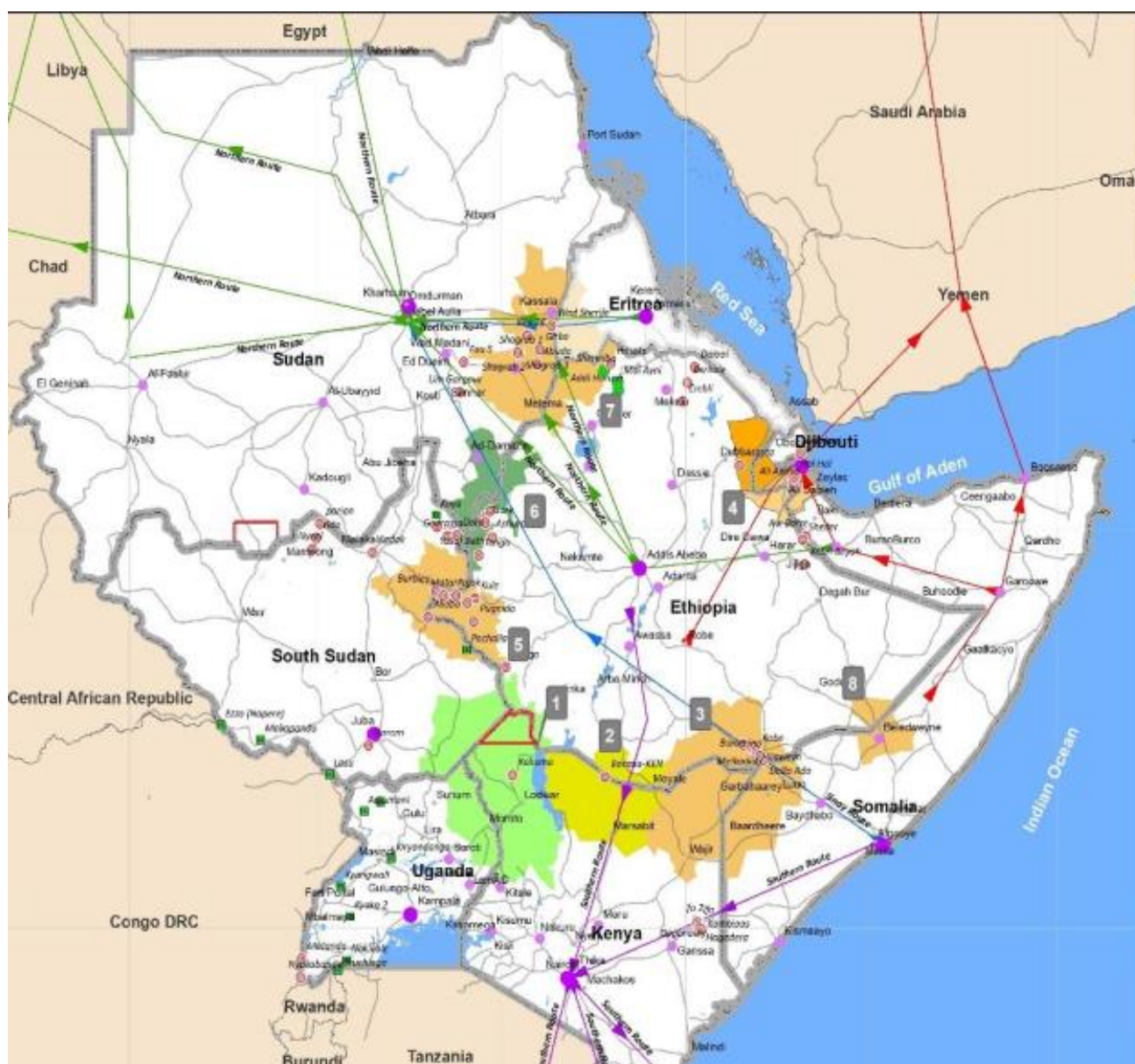


Fig 1: Map of IGAD region with 8 countries and 8 trans-boundary clusters
Source: IGAD/GIZ (no date)

As indicated in Figure 1 above, the 8 IGAD trans-boundary clusters are specified as follows:

- IGAD Cluster n° 1. AKA Karamoja Cluster, 4 Countries: Uganda, Kenya, S-Sudan and Ethiopia
- IGAD Cluster n° 2. AKA Borena/ Marsabit-Moyale Cluster; 2 Countries: Ethiopia and Kenya
- Proposed Cluster n° 3. Mandera cluster; 3 Countries: Ethiopia, Kenya and Somalia
- Proposed Cluster n°4. Dikhil cluster; 2 Countries: Ethiopia and Djibouti
- Cluster n° 5. Two (2) Countries: Ethiopia and South Sudan
- Proposed Cluster n°6. New Area; 3 Countries: Ethiopia, South Sudan and Sudan
- IGAD Cluster n° 7. Three (3) countries: Eritrea, Sudan and Ethiopia
- Proposed Cluster n°8. Ethio-Somali cluster; 2 Countries: Ethiopia and Somalia

Although programming, based on cross-border clusters was initiated to pursue regional integration and as pathways for advocating resilience and development in the IGAD region, clusters are now encountering challenges from the spread of COVID – 19. This has resulted in the temporary banning or reduction of cross-border mobility with severe negative economic impacts on cross-border communities.

In terms of the economy, the Horn of Africa region reportedly has the highest concentration of livestock in the world³. The livestock sector contributes nearly 60 percent to the combined agricultural GDP of the IGAD region, ranging from 20 percent in Uganda to close to 90 percent in Somalia. The sector is also the main source of livelihood for close to 40 million people across the region (FAO, n.d). Table 1 below, depicts the comparative annual GDP growth rates of countries of the region.

Table 1: Real GDP Growth, 2010 – 2020 (%)

									2018	2019	2020
	2010	2011	2012	2013	2014	2015	2016	2017	(estimated)	(projected)	(projected)
Djibouti	4.1	7.3	4.8	5	6	6.5	6.5	4.1	5.6	5.9	5.2
Eritrea	2.2	8.7	7	3.1	5	4.8	3.8	5	4.2	3.8	4.1
Ethiopia	12.4	11.2	8.6	10.6	10.3	10.4	8	10.7	7.7	8.2	8.2
Kenya	8.4	5.1	4.5	5.9	5.4	5.7	5.9	4.9	5.9	6	6.1
Somalia	-	-	1.2	2.8	2.4	3.9	4.4	2.3	2.9	3.5	3.5
S/ Sudan	-	-	-52.4	29.3	2.9	-0.2	-13.8	-11.1	-3.8	-2.6	-2.5
Sudan	6.5	0.9	1.4	4.4	2.7	4.9	3.5	3.3	4.1	3.6	3.8
Uganda	8.2	5.9	3.2	4.7	4.5	5.7	2.6	5	5.3	5.5	5.7

Source: AfDB (2019): East Africa Economic Outlook, 2019.

Although countries of the IGAD region heavily depend on primary sectors especially livestock husbandry, pastoral communities of the region constitute some of the poorest people not only in the region, but globally due mainly to poor production systems and low levels of productivity of the livestock. A strategy advocated by IGAD to share livestock related technology and stock is through livestock transhumance, for which a Protocol has been developed. Figure 2 (below) depicts corridors promoted to serve livestock transhumance, as well as the movement of persons and regional trade.

³ IGAD (2019): The IDDRSI Strategy (2019 – 2024)



Major IGAD Corridors



Fig 2: Major IGAD corridors (indicative boundaries)
Source: IGAD

According to the IDDRSI Regional Strategy (2019 – 2024), transhumance contributes approximately 6-10% to the GDP of countries of the IGAD Region, with exports of up to 12.8 million heads of sheep and goats as well as 60,000 tons of meat every year. However, the challenge of continued extreme weather variation, drought and climate change has placed pastoralists in persistent conflict with each other as they compete for pasture and water resources, rendering transhumant pastoralism a mainstay in the IGAD region.

3.3 Brief description of DRSLP-1

Since 2012 the IGAD Region has been engaged in implementing the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI), proposed by the Heads of State Summit of IGAD member countries in September of 2011 in Nairobi during which they pledged, among other things, to promote regional projects that address the underlying causes of vulnerability in drought-prone areas of the region. The objective was to build resilience against the negative effects of climate change and promote economic development through a coordinated approach. In order to “invest differently”, the Summit proposed a regional strategic framework for disaster resilience and sustainability in the Horn of Africa, which came to be known as the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI). It is a platform aimed at building the resilience of drought-prone communities, to address their challenges and vulnerabilities.

The Platform brings together different partners and stakeholders including IGAD Member States, development and implementing partners (including UN agencies), Civil Society, Private Sector and specialized research and training institutions. It provides the modalities through which the region’s priorities

and possibilities for intervention aimed at achieving resilience objectives are collectively discussed and mechanisms for effective implementation agreed. In harmony and support of the objectives of IDDRSI, the AfDB, in collaboration with IGAD and IGAD Member States, developed the Drought Resilience and Sustainable Livelihoods Program (DRSLP) starting 2013 as a 15-year, multi-phased, multi-national investment program, aimed at addressing the negative impact of recurrent droughts in the Horn of Africa Region. The coordinator of the IDDRSI Platform Coordination Unit (IDDRSI-PCU) has also been the coordinator of DRSLP – 1. In addition to other financial commitments in the IGAD region, AfDB provided a grant of 5 million UA starting 2013 through the IGAD Capacity Building Project, with the aim of developing the capacity of the IGAD Secretariat in the effective implementation of its regional mandate of leading and coordinating the implementation of IDDRSI in the Horn of Africa.

Objectives of DRSLP – 1

The overall goal of DRSLP – 1 has been to contribute to poverty reduction, increase food security and accelerate sustainable economic growth through enhanced rural incomes. Its medium and long term objectives have been to improve livelihoods and build resilience of the pastoral production system. The Project has been seeking to develop infrastructures for water mobilization and management for agriculture and livestock production, health and marketing. It also intended to build the capacity of the populations and Governments of the participating IGAD member countries to better cope with the effects of climate change, resources scarcity and conflicts related to resources utilization. The thematic focus of the project involves the following:

- a) Natural resources management (water development, rangeland rehabilitation and management, and soil and water conservation),
- b) Market and livestock infrastructure (development of feeder roads, development of livestock market centers, and development of comprehensive Animal Health Services), and
- c) Capacity building (training of beneficiaries in water and market information systems, animal health delivery systems, alternative livelihoods initiatives, peace building, and program coordination, monitoring and evaluation).

Objectives of DRSLP Capacity Building Project (DRSLP-CBP)

The DRSLP-CBP, which received a grant of UA 5 Million from the African Development Bank in 2013, has two components, namely: (a) Technical and Human Resources Support and (b) Institutional Support.

The first component supports the IGAD Secretariat with the technical assistance required to implement the drought resilience initiative through the (i) recruitment technical staff for the Regional IDDRSI Platform Coordination Unit, (ii) financing studies and the development of supportive policy and legal frameworks at IGAD Member States and regional levels and (iii) recruitment of additional staff for the relevant divisions and units of IGAD.

The second component supports the IGAD Secretariat by providing logistics i.e. (i) installation of ICT infrastructure and enhancing the (water, agriculture, livestock and natural resources management) information management systems, (ii) equipment for the Regional IDDRSI Coordination Unit, IGAD Secretariat, IGAD Divisions and Specialized Institutions and (iii) organization of regional coordination meetings and enhancing linkages with IGAD Member States and Non-State actors.

The DRSLP – 1 regional implementation control system includes (a) the Regional Program Coordination and Management Unit, (IDDRSI – PCU), (b) the Regional Steering Committee - RSC, (c) the IDDRSI Platform General Assembly, and other theme-based coordination mechanisms.

3.3.1 The Regional Program coordination and management

DRSLP regional coordination covers both planning and implementation and uses the IDDRSI Platform for this purpose. For the planning of activities, the program annually draws up work plans and budgets in a participatory manner in collaboration with all actors involved. The regional coordination also covers the

actions of the Regional Component entrusted to IGAD, as well as monitoring of the overall implementation of Program activities in IGAD Member countries through National IDDRSI Coordinators (NICs). In these regards, the IDDRSI-PCU is responsible for the management and coherence of activities across countries in relation to the assigned program objectives. Additionally, the IDDRSI-PCU organizes technical meetings with the NICs and focal points of the DRSLP project sites. It also benefits from the technical support of experts from the specialized institutions of IGAD (Divisions of the Executive Secretariat, ICPAC, ICPALD, CEWARN, ISTVS and others). More specifically, activities of the IDDRSI – PCU concern:

- Overseeing the technical execution of regional support activities of IGAD member States and their monitoring and evaluation;
- Supervision of the implementation of the Project at the level of the seven States covered ;
- Implementation of a communication plan around DRSLP
- Financial and administrative management;
- Creation of synergy between the DRSLP and other resilience initiatives underway in the Horn of Africa sub-region.

3.3.2 IDDRSI Regional Platform Steering Committee and related coordination mechanisms

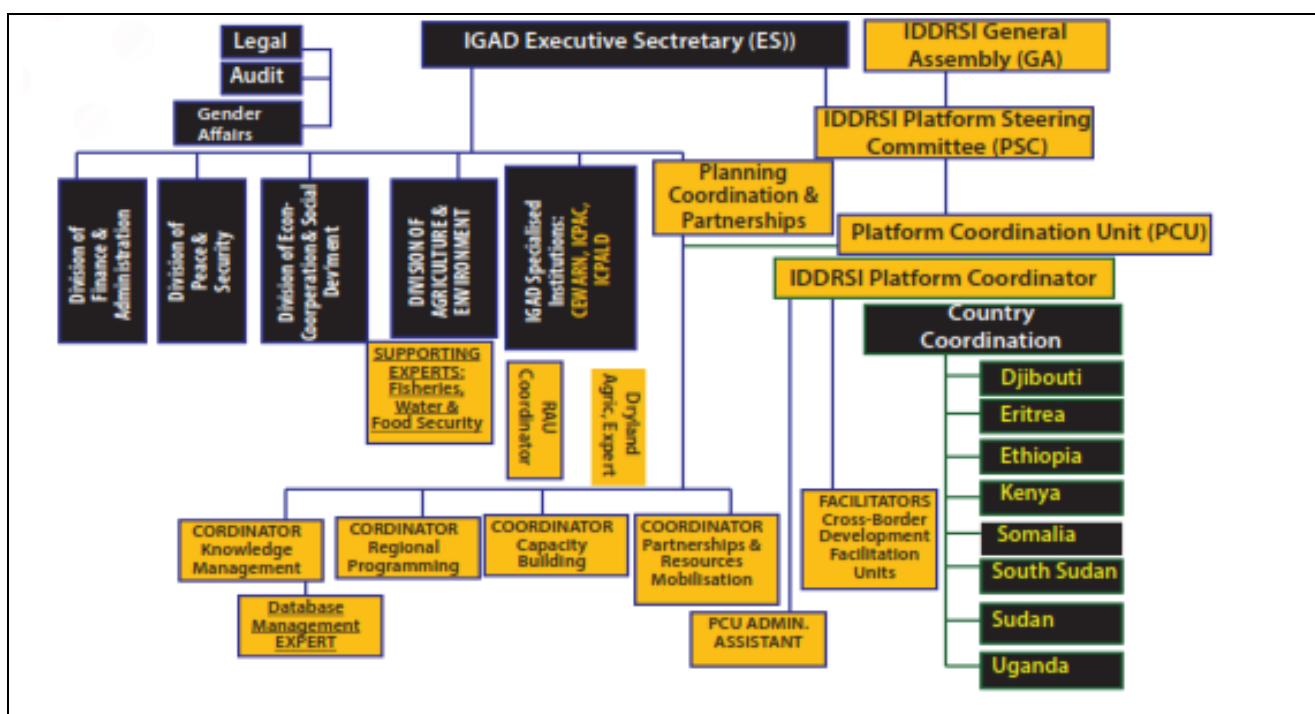


Fig 3: IDDRSI coordination structure

IDDRSI implementation comprises the IDDRSI Platform General Assembly, IDDRSI Platform Steering Committee and a functional IDDRSI Platform Coordination Unit. The IDDRSI Platform brings together the different partners and stakeholders including IGAD Member States, Development Partners and implementing Partners, including UN agencies, Civil Society Organizations and specialized research and training institutions, as well as the IGAD Secretariat along with its specialized institutions. As part of its institutional mandate, the IDDRSI Platform has a 3-tier structure that comprises a General Assembly of senior representatives of participating stakeholders, a Platform Steering Committee and a Platform Coordinating Unit (PCU).

Program orientation and monitoring are provided by the IDDRSI Platform Steering Committee (PSC). The Committee provides the unique opportunity to discuss plans, examine challenges, chart progress, and leverage on opportunities to build resilience to drought and related environmental shocks for communities of the IGAD region. It also provides an effective framework for promoting, coordinating and monitoring the interventions of partners working on community and ecosystem resilience in the IGAD region. The Regional Platform Committee meets once or twice a year, based on an agreed theme, during which it receives reports from IGAD Member States on progress made towards the implementation of IDDRSI. Recommendations are made and

their implementation is assessed in the next Platform Committee Meeting. Simply put; the IDDRSI Platform is coordinated by a Platform Coordination Unit, overseen by a Platform Steering Committee and reports to a Platform General Assembly. It should be indicated that there are National CPP Steering Committees as well as Sub-national Steering Committees. These lower level IDDRSI Committees meet more frequently to address emerging challenges before they become untenable.

There are also theme-based coordination mechanisms such as the cross-border resilience coordination mechanism represented by the Cross-Border Development Facilitation Unit in Moroto, Uganda, established by the governments of Ethiopia, Kenya, South Sudan and Uganda, to bolster cooperation for the development of the Karamoja trans-boundary cluster. Other cross-border coordination mechanisms are project based, with several of them expected to end in the 2021-2022 period. They include; the IGAD-FAO Partnership Project for trans-boundary clusters between Ethiopia, Kenya and Somalia; the Regional Pastoral Livelihoods Resilience Project (RPLRP) between Ethiopia, Kenya and Uganda; the Support for Effective Cooperation and Coordination of the Cross-border Initiative in Cross-Border Areas of the Horn of Africa Region (SECCCI) between Southwest Ethiopia-Northwest Kenya, Marsabit-Borana-Dawa and Kenya-Somalia-Ethiopia; the Cross-Border Cooperation Working Group (CBCWG) which meets regularly to discuss challenges and propose solutions for the attention and execution of relevant trans-boundary projects.

3.3.3 Collaboration mechanisms between Regional and National Coordination

The IDDRSI-PCU /DRSLP organizes regional workshops every year with National IDDRSI Coordinators (NICs) to take stock of the implementation of Program activities; assess results achieved at the levels of the regional and national components and draw lessons with the goal of making appropriate arrangements expected to facilitate the validation of their annual work and budget plans (AWBPs). The Regional Coordination also organizes thematic workshops for exchange of experiences and capacity building and prepares regular activity reports, shared during the IDDRSI Regional Platform Steering Committee and the General Assembly meetings.

3.3.4 Partnership between regional coordination and specialized institutions of IGAD

Collaboration Protocols are usually established with specialized regional institutions i.e. ICPAC, ICPALD, CEWARN, ISTVS and others for the implementation of activities that fall within their areas of competence. Also, Focal Points have been appointed within each of these institutions for the coordination and monitoring of IDDRSI / DRSLP-1 activities. The Monitoring-Evaluation Units of these institutions liaise with the Monitoring-Evaluation Unit of the Regional IDDRSI - PCU. Main challenges however reside above all in provisions of the collaboration agreements, which may be restrictive as they sometimes do not take account of the full competences of the specialized regional centers, nonetheless necessary to support implementation of the DRSLP.

3.3.5 Collaboration between the Regional Coordination of DRSLP -1 and AfDB

Collaborative relations between the IDDRSI – PCU /DRSLP-1 with the IGAD Secretariat and the African Development Bank mainly relate to “no objection” requests addressed to the Bank for the implementation of regional component activities, in particular for; acquisitions, consultation meetings, training sessions, support missions for activities in the six (6) participating countries as well as supervision missions. There is a general opinion that these relations are satisfactory, with wishes for the acceleration of the ‘processing times’ of files and the reduction of the number of activities for which “no objections” from the Bank is required. The Bank also undertakes biannual field monitoring missions to identify and correct gaps between planned interventions in the ‘annual activity and budget plans’ and implemented activities in relation to financial disbursements and management. “Aide Memoirs” documenting recommendations are produced after each mission.

4. FEASIBILITY OF REGIONAL INTERVENTIONS IN DRSLP – 2

4.1 Context

Activities at the regional level of DRSLP-2 are proposed at three levels or groups: (a) resilience activities that enhance integration and cooperation among IGAD member countries and cross-border societies through the existing system of trans-boundary clusters, (b) climate related services and activities expected to build the capacity of IGAD, IGAD centers and IGAD executing frameworks such as IDDRSI, and (c) overall project management, coordination, monitoring and supervision activities at the regional level by the IGAD DRSLP-2 executing framework. These three groups of activities are located in different DRSLP-2 project Components and were studied separately. The 1st group of regional activities located in Components 1 and 2 of DRSLP-2 were proposed by governments, partners and stakeholders during the AfDB/IGAD/ Governments/Partners DRSLP-2 project formulation mission of May 2021. The 2nd group of activities located in Component 3 of DRSLP-2 was initially proposed by governments, partners and stakeholders during the AfDB/IGAD/Governments/Partners DRSLP-2 project formulation mission of June 2019. This second group of activities was investigated during this study for their continued necessity using the most recent reports on lessons learnt from DRSLP-1, national and regional partner projects; recommendations from the most recent IDDRSI Platform coordination meetings, and regional strategies of IGAD and IGAD Centers. The 3rd group of activities proposed in Component 4 of DRSLP concerns project coordination and management and have not been modified since their proposal by the governments, partners and stakeholders during the June 2019 AfDB/IGAD/ Governments/Partners DRSLP-2 project formulation mission.

These are described below:

4.2 Feasibility of regional interventions in components 1 and 2 of DRSLP-2

4.2.1 Support for the sustainable management of agro-pastoral land

The degradation of agricultural and pastoral lands constitute a cost to land users in terms of declined yields, increased input demands, reduced resilience and ability to buffer shocks, and reduced usability and carrying capacity for livestock and crops⁴. On the contrary, stopping or reducing land degradation using appropriate technologies constitutes a benefit in terms of improved and sustained crop and livestock yields, less stressful cultural practices, reduced inputs and more diverse landscapes likely to attract secondary income such as from ecological tourism. Although the negative effects of climate change contribute significantly to the degradation of agricultural and pastoral land, poor land-use practices, absence of adequate policies and or their implementation also constitute major drivers of such degradation in IGAD countries. In addition, the patterns of land ownership, tenure, control by government, the limited levels of investment in the sustainable use of agricultural and livestock lands, the dire and or dilapidated rural infrastructure and low levels of technology also constitute underlying causes of agricultural and pastoral land degradation in the Horn of Africa. Policy failures in terms of inadequate capacity to implement government strategies also contribute to the degradation of agricultural and pastoral land. Action against the degradation of agricultural and pastoral land primarily depends on the change of farmers and pastoralist behaviors towards the adoption of better land management practices. Interventions in this section are expected to create the appropriate environment for planning and implementing good land management practices, including inciting and provoking the desired behavioral change among land users in IGAD Member countries. IGAD will lead interventions of this section in collaboration with government ministerial departments responsible for lands (including national land commissions), agriculture, livestock and pastures, natural resources and forests in its Member States. The following 4 activities, located in component 1/sub-component 1.2 of the proposed DRSLP-2, have been studied in relation to IGAD trans-boundary clusters and costed as indicated in Annex 1 of this report. They comprise the following:

⁴ World Bank. (2006). *Sustainable Land Management-Challenges, opportunities and trade-offs*. Washington DC: The International Bank for Reconstruction and Development / The World Bank. Retrieved from: http://siteresources.worldbank.org/INTARD/Resources/Sustainable_Land_Management_ebook.pdf

1. Undertake regional quantitative study on land loss through erosion and degradation and its impact on climate change mitigation and adaptation
2. Generate spatial knowledge about the pastoralist land tenures and livestock corridors in the IGAD Clusters in terms of the impact of climate change for the purposes of conflict sensitive and inclusive land use planning
3. Design policy, administrative, and educational tools that assist local communities, Member States, and NGOs, to reconcile land tenure conflicts in the face of climate change in the IGAD Clusters
4. Produce catalogues of land conflicts in IGAD clusters where project interventions are being done and how they can be transformed to enhance resilience and adaptation to climate change in the areas.

4.2.2 Promotion of climate-smart innovations and technologies

The IGAD region contains home-grown innovative agricultural and livestock management technologies. Some of these include: pastoral livelihoods-based monitoring and information systems; climate-smart village (CSV) schemes, employed to up-scale adapted and successful tools and to disseminate information through Participatory Integrated Climate Services (PICSA); geospatial analyses for potential livestock fodder production areas, and more. However, field-based agricultural and livestock innovations can be susceptible to pest attacks, of which the most common in the IGAD region is the Field Army Worm. Eliminating pests and diseases includes various types of biological, mechanical or chemical methods as well as better pest monitoring and prediction of new pest management tactics⁵. IGAD countries of the East African Community (EAC) such as Kenya and Uganda are familiar with the EAC's Common Phytosanitary Protocol, whose Article 108 provides for cooperation in the control of plant and animal diseases, harmonization of inspections and certification procedures as well as safe movement of plants and plant products including seeds. The Protocol can serve as inspiration for IGAD.

Interventions in this section will build on innovative approaches developed and packaged by the CGIAR centers including the International Livestock Research Institute (ILRI), the International Centre for Agricultural Research in Dry Areas (ICARDA), the International Water Management Institute (IWMI), WorldFish Center, World Agroforestry Center (ICRAF) as well as the Food and Agricultural Organisation (FAO). Partnerships will be developed between CGIAR centres, national research agencies and IGAD Regional and National Institutions as well as the Pan-African Agency of the Great Green Wall, to scale-up innovative technologies expected to improve agro-sylvo-pastoral and fisheries production and productivity. The CGIAR centres will provide implementation support towards program design and preparation, and implementation support for the climate-smart technologies. Also, the TAAT Clearinghouse offers a wide range of technology brokerage services that will be available to assist the IGAD Secretariat.

The following 5 activities, expected to create an enabling environment for the dissemination of agricultural, livestock and aquacultural technologies as well as fight against crop infestation and infection challenges, located in component 1/sub-component 1.3 of DRSLP-2, have been studied in relation to IGAD trans-boundary clusters and costed, as indicated in Annex 2 of this report. They comprise the following:

1. Provide technical assistance to IGAD in the development of harmonized regional seed policies and a regional seed roadmap for specific regional commodities,
2. Operationalize Fall Army Worm control by providing a strategy paper at the national and regional levels
3. Support and provide technical assistance to IGAD on the development of national and regional strategies for cross boarder agriculture and livestock technologies dissemination
4. Prepare targeted national policy briefs regarding scaling of technologies
5. Organize national policy engagement events to influence policy /decision makers to improve political support for enhancing the enabling environment for technologies dissemination

⁵ Gichora, M., Kojwang', H., & Bosu, P. (2017). The status and trends of forest and tree pests and diseases management in Africa. AFF Working Paper (3) 3. African Forest Forum, Nairobi.

4.2.3 Capacity building, knowledge management and dissemination

Technology is quickly changing the way land is prepared for cultivation, how livestock is pastured and how food is produced, processed, packaged and distributed. The growth of mobile technologies and access to the Internet now offers an opportunity to integrate SMEs in a digitally enabled agro-sylvo-pastoral production system. Agro-sylvo-pastoral extension and advisory services should not be abandoned, since they act as safety-nets especially in poor rural communities where due to recurrent power outages and Internet connectivity lapses, sustained access to modern technology can sometimes constitute a major challenge.

Capacity building also includes the promotion of networks for sharing information and experiences needed for effective engagement in policy practice, confront impediments related to the dissemination of intelligence on food security, resilience to climate change shocks and build consensus in order to circumvent unnecessary barriers, as well as provide solid spring-boards required for sustainable interventions. Interventions in this section will be led by IGAD with the support of government agencies such as agriculture and livestock, with field-based advisory and extension services. The support of government ministerial departments responsible for posts and telecommunications as well as Internet service providers will be sought. Interventions will support the adoption and down-scaling of bundled ICT, mobile and digital services to enhance yields and scale productivity of smallholder farmers, improve efficiency of production systems and adaptation to climate change, facilitate access to markets, and more.

The following 4 activities, expected to improve knowledge management and the dissemination of agricultural, livestock and aquacultural technologies, located in component 1/sub-component 1.3 of DRSLP-2, have been studied in relation to IGAD trans-boundary clusters and costed, as indicated in Annex 3 of this report. They comprise the following:

1. [Develop training of trainer's guidelines](#)
2. [Develop and disseminate an online catalog of technologies to be maintained by IGAD and Member Countries](#)
3. [Organize at least one annual technology fair showcasing the benefits of climate smart agriculture technologies and how they contribute to building agriculture resilience](#)
4. [Organize a regional policy forum to sensitize policy makers and create support for scaling irrigation and agricultural water management technologies.](#)

4.2.4 Coordination of the implementation of TAAT technologies

Technologies for African Agriculture Transformation (TAAT), is an AfDB flagship program, which offers a wide range of technology brokerage services to assist African countries. The services include the latest climate-smart technologies, their accompanying management practices, and post-harvest and value-addition interventions. Different strategies are offered for different commodities, but are usually combined to strengthen national food systems. The overall goal of TAAT which is an integral part of AfDB's Feed Africa Strategy (2016–2025) is to radically transform African agriculture into a competitive sector by deploying high-impact, proven agricultural technologies to raise agricultural productivity in Africa; mitigate risks and promote diversification and processing in 18 agricultural value chains within eight priority intervention areas, namely: self-sufficiency in rice production; cassava intensification; food and nutrition security in the Sahel; transforming African Savannas into breadbaskets; revitalizing tree plantations; expanding horticulture; increasing Africa's wheat production and achieving self-sufficiency in inland fish production. These work alongside six enabler domains that address transversal issues such as soil fertility management, water management, and capacity development, policy support, attracting African youth in agribusiness, and fall armyworm response.

The following 4 activities, to be managed in partnership with IGAD, are expected to improve production and productivity of target agricultural crops in the IGAD region. The activities are located in component 1/sub-component 1.3 of DRSLP-2, and have been studied in relation to IGAD trans-boundary clusters and costed, as indicated in Annex 4 of this report. They comprise the following:

1. [Overall oversight and coordination: program management, M&E \(internal\), reporting - quarterly and annual technical and financial reports](#)

2. Monitoring and Evaluation (external)
3. Ensuring quality of technologies, approaches, trainings, extension materials.
4. Sharing knowledge across the region

4.2.5 Facilitating access to advisory services and markets through digital technologies.

Imperfect markets impose remarkable negative consequences for vulnerable communities, which have little room to accommodate or buffer spikes and rapid changes in prices. Volatility and rising prices weaken the purchasing power of vulnerable households and limit their access to a variety of essential goods and services. Price volatility is also reflected in the deteriorating nutritional status of vulnerable households, leading to fewer daily meals of lower quality. Market information therefore constitutes a key concern for public authorities, which have placed it at the center of policies and strategies for managing food and nutrition security issues at both national and regional levels. Public authorities are striving to better understand the operation of markets for agricultural and livestock products to guide decision making with the goal of guaranteeing food and nutritional security especially of vulnerable populations. Market information systems (MIS) deployed at national and regional levels function as monitoring instruments, while intending to guarantee the transparency of markets and ensuring improved performance. With the advent of Information and Communication Technologies (ICT), MIS have drawn added value from existing innovations ranging from the use of the Internet to the use of mobile telephony. This technological leap has enabled countries to use the media for collecting and disseminating information, making it possible to reach a wider audience through mobile telephony. Impacts include: greater accessibility to market data (prices, stocks, etc.); reduction of transmission times of market data even in times of crisis (instantaneous transmission); online sale and purchase through the "Mobile Commerce Application", the "Virtual Stock Exchange" and the "E-Commerce Module"; alert of SIM administrators in the event of incorrect data on the platforms; mapping of markets and collectors; access to data and information from the telephone (message and voice in several local languages); possibility to send data collected by investigators to the "Cloud" in the absence of Internet connection. IGAD will lead interventions in this section in collaboration with the appropriate government ministerial departments responsible for: Posts, Telecommunications, Commerce, Internet Providers, as well as the government primary focal sector departments.

The following 6 activities, expected to contribute towards advisory services, located in component 2/sub-component 2.1 of DRSLP-2, and have been studied in relation to IGAD trans-boundary clusters and costed, as indicated in Annex 5 of this report. They comprise the following:

1. Establishment of a regional innovation hub/ data center for coordination and knowledge sharing across innovation partners, governments, and other stakeholders.
2. Feasibility studies on uses, policy and regulatory issues of digital agriculture, with focus on climate adaptation, land management and resilience for food and nutrition security.
3. Regional training of trainers on a/some specific solutions/technologie(s).
4. Identification and support (regional competition + grant) at regional level to digital solutions that foster resilience in FNS and give opportunity for young entrepreneurs to deliver services across the border.
5. Undertake feasibility study to develop frameworks for data standards, use of farmer or user data anonymization and protection from discriminatory practices in cooperation with farmer cooperatives and insurance providers
6. Undertake studies on regional enabling business environment (payment structure, legal registration, mobile money platform access) and supportive policy for bundled payment services and climate indexed insurance.

4.3 Feasibility of interventions under component 3

Activities in this section were reviewed and retained based on recent lessons learnt, recommendations by recent IDDRSI platform meetings as well as the strategies of IGAD and its key centers. The assessment framework is attached as Annex 6 of this report. The assessment generated 61 Activities. Eighteen (18) of which were proposed by the AfDB/IGAD/Governments/Partners and stakeholders consultation and project formulation mission of May 2021. It should be indicated that, based on the regional budget, more activities

can be collated from the matrices attached under Annex 6 of this report. The 18 selected activities (written in blue) are described and presented in the following sections:

4.3.1 Support development and improvement of weather and climate services

The fundamental objective of DRSLP-2 is to address the root causes of the devastating slow onset disasters while building medium to long-term resilience to ensure food and nutrition security in the IGAD region. Most of the interventions are therefore expected to be based on climate change adaptation and mitigation measures. The risks are addressed in terms of the type of management measures that need to be engaged in order to address the negative climate effects and vulnerability, the increased exposure or susceptibility especially of vulnerable poor communities, to endemic risks or external shocks. Challenges expected to face DRSLP-2 will include: the availability and choice of the right adaptation technology; participation and empowerment of all stakeholders; integration of interventions; learning lessons instantaneously and avoiding ignoring the environmental costs of doing nothing or not using the right approach or bundle of approaches. Perceiving climate change in terms of risk assessment and risk management in the IGAD region makes it evident that, taking a cautious stance i.e., doing nothing or very little and adopting the business as usual model constitutes a substantial risk. The ultimate is for all interventions to lead to reduced vulnerability of communities and increased resilience of production systems.

Interventions in this section will be led by IGAD through ICPAC (which is a partner of the African Centre of Meteorological Applications for Development (ACMAD) with headquarters in Niamey, Niger. There will also be a need for reinforced collaboration between ICPAC and the national climatic and hydro-meteorological services in IGAD Members States, including the relevant statistical services of focal government ministerial departments (amongst others to determine trends between field production statistics and climatic and hydro-meteorological data). Collaboration should also be engaged with specialized projects in the IGAD region endowed with the necessary climatic and hydro-meteorological infrastructures.

The following 3 Activities under Component 3.1, have been proposed to contribute in the attainment of the goal of this sub-section as follows:

1. [Support climate and Weather Observation Networks and Infrastructure and Data Processing for Enhanced provision of HYDROMET Services.](#)
2. [Develop Appropriate HYDROMET data and model applications, products and services and Dissemination to meet the needs of RMCs and Region](#)
3. [Promote climate and Weather User and Stakeholder Interaction](#)

4.3.2 Support for mainstreaming climate risk finance and insurance

AfDB currently increases its interventions in the Horn of Africa by downscaling important knowledge generated in the area of resilience-building within and across countries. The knowledge mobilization process will focus on local intelligence, experiences and lessons from similar interventions within IGAD countries and in other regions. Thematic networks and discussion groups in the area of resilience-building are already being organized and functional. DRSLP-2 will promote cross-border learning within the region by ensuring that IGAD plays an active regional coordination role. Face to face gatherings and virtual networking and dedicated websites will be some of the tools used by the program to share knowledge among the communities, public institutions and other relevant stakeholders.

Due to increased climate variability, efficient meteorological services to provide accurate weather, climate and droughts information to vulnerable communities are crucial. Mitigating and adapting to the climate risks has to be part of development plans if food and nutrition security is to be attained. It is important to understand how climate variability impacts livelihoods and food security so that such analyses can inform on where to prioritize adaptation, mitigation and resilience interventions. Hence the need, as advocated by the IDDRSI Strategy within the framework of Disaster Risk Management, for enhancing drought preparedness, prevention, mitigation and management capacities of affected communities; as well as building capacity in early warning and response mechanisms; contingency planning and disaster risk reduction. Interventions in this section will

be led by IGAD through ICPALD. ICPALD will collaborate with relevant government agencies responsible for digitalization of livestock production, insurance and related marketing functions.

The following 4 Activities under Component 3.2 have been proposed to contribute towards attainment of the goal of this sub-section as follows:

1. Establishment of a standards certification body for quality index insurance at the regional level
2. Investment in data collection, validation infrastructure and standards at the regional level
3. Technical assistance for strengthening and establishment of digital services for parametric/index insurance for climate risks.
4. Strengthening local and regional livestock value chains and national/regional markets for fodder and other livestock needs supply to sustain insurance uptake.

4.3.3 Support operationalization of Nationally Determined Contributions (NDCs)

Current policies, strategies and programs do not appear to be producing the expected results in the domain of climate change adaptation and mitigation. Consequently regional levers ought to be activated to facilitate the implementation of the Paris Agreement. The Agreement made provisions for Nationally Determined Contributions (NDCs), which require Parties to commit to “prepare, communicate, maintain and pursue domestic mitigation measures” aimed at achieving their adopted reduced emissions levels. Most countries, including those of the IGAD region have indicated that the process was initially hurried. They consequently need support to undertake effective basic natural resource accounting to benefit from the NDC financial mechanism. Also, because NDCs involve a large number of sectors likely to contribute to climate change mitigation, climate change adaptation and/or pollution, the process is prone to considerable duplication and/or repetitions. Initiatives in this section will be led by IGAD, which will collaborate directly and actively with most government ministerial departments, whose policies and strategies are likely to contribute to climate change mitigation, adaptation and or pollution. They include the government ministerial departments of Energy, Agriculture, Livestock and Pastures, Fisheries, Lands, Forestry, Water and Hydraulics, Seas and Oceans, Environment and Climate Change, Wildlife and Biodiversity, Mines, Health etc. There will also be a need for policy development support from the relevant departments of the UNFCCC as well as technical project development support from i.e. the Green Climate Fund (GCF). Some of the outcomes expected from this section are likely to include: interministerial forums, platforms and networks, including steering committees that encourage joint planning, sharing of knowledge and other information by those involved in mitigation and adaptation schemes; as well as mechanisms for inter-ministerial and intra-ministerial coordination in order to minimize duplication in the conception, development and implementation of NDCs.

The following 3 Activities under Component 3.3 have been proposed to contribute towards attainment of the goal of this sub-section as follows:

1. Facilitation of Regional Dialogue for coherence of NDC National measures
2. Development of NDC implementation action plans building on country commitments to implementation of the Paris Agreement
3. Feasibility studies for identified pipeline of investments will promote more coordinated action in HoA for mutually desired results.

4.3.4 Support development of climate risk management tools

The Horn of Africa region is perpetually at risk of multiple disasters; including floods, droughts, heat waves, migratory crickets and other complex emergencies. The region’s natural resources, including water, land, pastures, plants, livestock and wildlife are adversely affected by climate change and its variability, which negatively impacts the economic and social development of the region. Climate related shocks pose significant threats to food security particularly for the vulnerable in drought prone communities. Changes in climate are translated directly, negatively affecting the region’s economic and social performance. A drought resilient IGAD region is judged on the basis of: adequate, assured and stable food and nutrition security; reduced vulnerability to disasters through development actions; prevention and peaceful resolutions of conflicts;

sustainable livelihood systems; adequate social protection measures for the disadvantaged; equitable access to sustainably managed natural resources; active participation and inclusiveness in planning, implementation and decision making; assured inclusive economic growth and access to natural resources; and evolution of strong trans-boundary movement of people and their livestock, and trade networks towards a knowledge economy.

Interventions in this section will identify and address the underlying causes of social and environmental vulnerability, guide the application of holistic approaches to strengthen the capabilities of households, communities and IGAD Member States to cope with and adapt to natural hazards and their economic repercussions. It is in this regards that the Nairobi Summit emphasized the need to do things differently including: countries working together as a region; adopting the double track approach to drought where emergency response is linked to recovery and long-term development; focusing on priority intervention areas as identified by target communities and IGAD Member States; ensuring that the design, development and implementation of interventions are people-centered; and take into account all aspects of human development to ensure drought resilience and food and nutrition security. IGAD will delegate its Division of Planning, Coordination and Partnerships to lead interventions in this section alongside its Regional Gender Affairs Unit. At the technical level, ICPAC and IFRAH will lead interventions alongside the IDDRSI-PCU and other relevant international partners. Collaboration at the national level will involve the government ministerial departments responsible for climate and environment, and others such as CSOs or NGOs as determined by IGAD in concert with the focal government ministerial departments.

The following 8 Activities under Component 3.3 are proposed to contribute towards attainment of the goal of this sub-section as follows:

1. Strengthen institution capacities, increase data sharing and collaboration, in delivering climate services.
2. Support for the establishment of regional climate fund for the GHA region and building capacity of ICPAC regarding accreditation to Green Climate Fund, mobilizing and management of climate change funds
3. Mainstream disaster/climate risk management into regional plans, policies and strategies
4. Support operationalization of the East Africa Multi Hazards Watch System to serve as a regional platform for alerting against climate-related risks.
5. Support the IDDRSI Regional Platform Coordination Unit in the monitoring of IDDRSI implementation at regional, national and sub-national levels
6. Support regional capacity to anticipate and timely respond to disaster risks
7. Strengthen IGAD Regional resilience report and resilience measurement
8. Support operationalization of IGAD Food Security, Nutrition and Resilience Analysis Hub (IFRAH)

4.4 Feasibility of interventions under component 4 of DRSLP - 2

Component 4 of DRSLP – 2 essentially concerns project management and coordination. The management and coordination functions however must take account of the knowledge / technology explosion blossoming in Africa, characterized by innovations such as; e-registration and digitalisation of crop and livestock marketing, parametric insurance for crops and livestock, development of low cost biogas digesters, solar energy capture, climate smart technologies and tools including climate smart and ecological villages, TAAT technologies and more. Inadequate preparation for project innovations will lead to risks such as cost overruns and unnecessary project extensions. This will occur amongst others if adequate terms of references are not developed and competent experts not contracted at the beginning of the project. Moreover, the numerous innovations will render the project complex necessitating a functional single information system to measure project performance against the project plan. Also, the multiple innovations will be better served if the project team is broken-down into sub-project teams around a shared project vision. Notwithstanding, management should watch for “projectitis”, which occurs when project team members consider themselves ‘more useful’ than personnel of the parent organisation i.e. IGAD, a situation likely to generate frustrations. This should be avoided as DRSLP – 2 is expected to support and transform IGAD into an organization of excellence that produces, scales-up and exports community and ecosystem resilience technologies. Project management

should also acknowledge that there could be “technology overrun”. This occurs when new technologies are imposed without prior studies to determine their social acceptability as community norms and values may be undermined by the technologies. As a matter of caution, carefully designed studies may be needed prior to engaging new or first time technologies!

Another management and coordination challenge to watch, relates to the expected increased oversight by IGAD over trans-boundary cluster activities. While clusters act as gateways for the passage of innovations and technologies across borders, they can also promote insecurity including the exploitation of resources across the border by others from the other side of the border, thereby generating conflicts, which run counter to IGAD’s goal of regional integration. Yet another aspect of strategic importance in the management component of DRSLP – 2 is the necessity to ensure the empowerment of women through skills enhancement to facilitate their employability, and access to finance and markets.

In addition to the preceding challenges past meetings of the IDDRSI Platform had made recommendations on improvements for implementing IDDRSI and consequently DRSLP - 2. These lessons and challenges will guide the management and coordination of DRSLP-2 through the following 4 major activities:

1. Effective and efficient regional management of the program by IGAD
2. Management of national components at national and sub-national levels
3. Implementation of regional and national technical coordination including planning, supervision, monitoring, evaluation and reporting
4. Implementation of financial management including financial appraisals and annual audits

5. SUB-ACTIVITIES AND OPERATIONAL MODALITIES

Activity group n° 4.2.1: Support for the sustainable management of agro-pastoral land

1. Undertake regional quantitative study on land loss through erosion and degradation and its impact on climate change mitigation and adaptation

Sub-activities and implementation modalities

- 1.1 Develop ToRs, publicise EOI and recruit 2 consultants to undertake quantitative study on land loss through erosion and degradation and impacts on CC mitigation and adaptation (to be undertaken in 4 trans-boundary clusters)
- 1.2 Undertake study at 6 months per consultant distributed at 2 clusters per consultant and at 2 months per trans-boundary cluster and 2 months for write-up, review and finalisation of report (making sure to encourage the use of common terminology, systems and standards to enhance cross-border and international cooperation)
- 1.3 Organize regional workshop for validation of study through IDDRSI General Assembly, validate results of the study and advocate uptake of recommendations

2. Generate spatial knowledge about the pastoralist land tenures and livestock corridors in the IGAD Clusters in terms of the impact of climate change for the purposes of conflict sensitive and inclusive land use planning

Sub-activities and implementation modalities

- 2.1 Develop ToRs, publicise for EOI to generate spatial knowledge on pastoralist land tenures and livestock corridors in IGAD clusters in connection with the impact of climate change for conflict sensitive and inclusive land use planning. (to be undertaken in 4 trans-boundary clusters with highest livestock activity and crossings i.e. clusters n°1, n°3, n°7 and n°8)
- 2.2 Recruitment by ICPALD of 2 finalists to undertake study at 2 trans-boundary clusters per consultant and 2 months of write-up per consultant for a total period of 6 months per consultant (making sure to encourage the use of common terminology, systems and standards to enhance cross-border and international cooperation)
- 2.3 Engagement by ICPALD of partners with appropriate satellite imagery infrastructure and relevant national mapping agencies to support the study
- 2.4 Organize regional workshop through the IDDRSI mechanism to validate the results of the study with reflections on how best to implement and institutionalize recommendations / their uptake

3. Design policy, administrative, and educational tools that assist local communities, Member States, and NGOs, to reconcile land tenure conflicts in the face of climate change in the IGAD Clusters

Sub-activities and implementation modalities

3.1 Support development of policy in the management of agro-pastoral lands expected to help Member States to reconcile land tenure conflicts in the face of climate change in IGAD Clusters. [Policies areas include (a) develop an IGAD framework for land-use planning / zoning in trans-boundary clusters with the corollary to suspend current conflicting land uses, (b) Improve and / or reform current agro-pastoral land tenure regimes in IGAD clusters according to the political, socio-environmental and technical principles enshrined by NDCs and other climate linkage processes i.e. LDN

3.2 Support development of administrative tools in the management of agro-pastoral lands expected to support Local Communities to reconcile land tenure conflicts in the face of climate change in IGAD Clusters. [Administrative tools include (a) support production of documentation for land rights/ titles in trans-boundary clusters, (b) support development of cadastral maps in trans-boundary clusters, (c) support use of smart phone Apps to determine boundaries among trans-boundary cluster communities

3.3 Support development of educational tools in the management of agro-pastoral lands by educational establishments, NGOs and government extension agents to guide reconciliation of land tenure conflicts in the face of climate change in IGAD Clusters. [Educational tools include, (a) development of land management curriculums in professional / educational establishments and (b) development of guidelines for simple diagrammatic identification and land management processes at the level of communities

4. Produce catalogues of land conflicts in IGAD clusters where project interventions are being done and how they can be transformed to enhance resilience and adaptation to climate change in the areas.

4.1 Support development of catalogues of land conflicts in IGAD trans-boundary clusters by transposing the 3W tool to a 'what-conflict-where' (W-C-W) tool, based on the following conflict themes: (a) zones of tenure insecurity and tenure conflicts, (b) zones of excessive unplanned cutting of wood and poles, (c) zones of incompatible mining and quarries, (d) zones of unplanned transhumance, zones of excessive grazing and wildfires, (e) zones of unplanned cash crop production, (f) zones of unavailable or obsolete cluster management plan, and (g) zones of poor / inadequate technical cluster management capacity

Activity group n° 4.2.2: Promotion of climate-smart innovations and technologies

1. Provide technical assistance to IGAD in the development of harmonized regional seed policies and a regional seed roadmap for specific regional commodities.

Sub-activities and implementation modalities

- 1.1 Identify seed producing agencies in IGAD countries (and sources in Africa currently sending seeds into the IGAD region) and request for their seed production Protocols
- 1.2 Develop ToRs, publicize request for EOI and recruit consultant / or implement partnership agreement with relevant CGIAR Agency to undertake desk review of received seed production Protocols (from within the IGAD region) to identify disparities and inconsistencies
- 1.3 Support development of political Protocol for seed and seedling production and transportation in the IGAD region
- 1.4 Advocate adoption of regional Protocol on seed and seedling production and transportation in the IGAD region
- 1.5 Identify 5 key commodities in IGAD region (TAAT targets : Sorghum, Millet, heat tolerant Wheat, water efficient Maize, and Soy Bean) and develop roadmap for the production and transportation of their seeds in the IGAD region

2. Operationalize Fall Army Worm control by providing a strategy paper at the national and regional levels

Sub-activities and implementation modalities

- 2.1 Develop ToRs, advertise request for EOI and recruit Fall Army Worm (FAW) expert for 2 months / or use CGIAR partnership to develop the FAW paper.
- 2.2 Supervise development of FAW paper in 1st month of consultancy or partnership
- 2.3 Organise 6 national workshops in IGAD countries and 1 regional workshop during 2nd month of consultancy or partnership

3. Support and provide technical assistance to IGAD for the development of national and regional strategies for cross boarder agriculture and livestock technologies dissemination

Sub-activities and implementation modalities

3.1 Develop ToRs, publicize request for EOI and recruit 1 agriculture expert, and 1 livestock expert for 1½ month per consultant / or use the partnership with ICARDA in the case of agriculture and ICPALD in the case of livestock to develop the strategies.

3.2 Supervise the development of national agricultural strategy (national sections) of trans-boundary clusters using exemplary clusters where agriculture is most prevalent i.e. clusters n° 1, n° 5 and n° 6.

3.3 Supervise the development of national livestock strategy (national sections) of trans-boundary clusters using exemplary clusters where livestock activities are most prevalent i.e. clusters n°1, n°3, n°7 and n°8

3.4 Supervise development of regional agricultural strategy for trans-boundary clusters

3.5 Supervise development of regional livestock strategy for trans-boundary clusters

3.6 Validate national and regional agricultural and livestock strategies in 6 national workshops and 1 regional workshop

4. Prepare targeted national policy briefs regarding scaling of technologies

Sub-activities and implementation modalities

4.1 Prepare ToRs, publicize request for EOI and recruit rural development policy analysis expert for 1½ month.

4.2 Supervise the development of fact sheets on climate related agricultural and livestock technologies for 2 weeks

4.3 Supervise the development and dissemination of policy briefs (based on fact sheets) on technologies for scaling-up acceptable climate related agricultural and livestock technologies

5. Organize national policy engagement events to influence policy /decision makers to improve political support for enhancing the enabling environment for technologies dissemination

Sub-activities and implementation modalities

5.1 Develop ToRs for national policy engagement events to create an enabling environment for dissemination of technologies (i.e. meetings that bring researchers together with policy makers; workshops that bring technology promoters / development partners together with policy makers; meetings that bring parliamentarians together with promoters of resilience technologies etc.)

5.2 Organize 2 types of policy engagement events per IGAD member country i.e. Parliamentarians with Researchers; and Technology promoters / development partners with policy makers

5.3 Produce reports from policy engagement events and advocate the uptake of recommendations through the IDDRSI Platform.

Activity group n° 4.2.3: Capacity building, knowledge management and dissemination

1. Develop training of trainer's guidelines

Sub-activities and implementation modalities

1.1 Identify and characterize 7 pertinent domains for which to develop guidelines for training of trainers' i.e. market information systems (MISs); 3W into W-C-W; parametric insurance; seed development technologies; digital irrigation water supply and monitoring technologies; aquaculture technologies, bundle of TAAT technologies etc.

1.2 Develop ToRs for each training of trainers' technology domain and recruit experts / use ICPAC, ICPALD or IFRAH services or engage partnerships with the relevant CGIAR agencies

1.3 Develop prints of Training of Trainers guidelines for the different technologies in the appropriate languages

2. Develop and disseminate an online catalog of technologies to be maintained by IGAD and Member Countries

Sub-activities and implementation modalities

2.1 Define and characterize the different; technically sound, economically viable, socially acceptable, and environmentally sustainable climate related resilience technologies in the IGAD region.

2.2 Contract partners to engage development of the catalogue, and review with support of IGAD Divisions, Partners and government representatives

2.3 Identify no-cost online webpages for dissemination of developed technological catalogues.

3. Organize at least one annual technology fair showcasing the benefits of climate smart agriculture technologies and how they contribute to building agriculture resilience

Sub-activities and implementation modalities

3.1 Define and characterize CSA technologies in connection with an annual technology fair to showcase benefits for agricultural resilience

3.2 Define ToRs and publicize EOI for technology fair organizer / or engage IGAD Centers / or partnership with competent CGIAR Center

3.3 Develop program of the technological fair and publicity pamphlet. Print, send out special and general invitations, and publicize online.

3.4 Prepare technological fair grounds and related logistics, and effectively hold technological fair

3.5 Produce colorful report of 1st fair to use for programming the 2nd technological fair in the 4th year of the project

4. Organize a regional policy forum to sensitize policy makers and create support for scaling irrigation and agricultural water management technologies.

Sub-activities and implementation modalities

4.1 Define and characterize the regional policy forum on irrigation and agricultural water management technologies.

4.2. Define ToRs and publicize EOI for regional policy forum organizer / or engage ICPAC or partnership with competent irrigation water management agency in IGAD region

4.3 Develop program of the forum and publicity pamphlet. Print, send out special and general invitations, and publicize forum online.

4.4 Prepare forum grounds and related logistics, and effectively hold policy forum on irrigation and agricultural water management technologies.

4.5 Create a network of promoters of irrigation and agricultural water management technologies (as an outcome of the forum)

Activity group n° 4.2.4: Coordination of the implementation of TAAT technologies

Activity group n° 4.2.5: Facilitate access to advisory services & markets through digit technologies

1. Establishment of a regional innovation hub/ data center for coordination and knowledge sharing across innovation partners, governments, and other stakeholders.

Sub-activities and implementation modalities

- 1.1 Take stock of national knowledge management / innovation hubs involved in sharing knowledge among government agencies and stakeholders in the IGAD region to benefit from their experience
- 1.2 Develop ToRs of regional innovation hub/ data center for coordination and knowledge sharing
- 1.3 Develop ToRs and publicize request for EOI for the recruitment of an institutional development expert to set up data center / regional knowledge management hub at IGAD
- 1.4 Develop sub-project; including job descriptions of personnel, materials and equipment to allocate for operation of the knowledge management hub including modalities for its operation
- 1.5 Allocate operational cost for the functioning of the knowledge management hub

2. Feasibility studies on uses, policy and regulatory issues of digital agriculture, with focus on climate adaptation, land management and resilience for food and nutrition security

Sub-activities and implementation modalities

- 2.1 Take stock of the results of existing studies on digital agriculture, with focus on climate adaptation, land management and resilience for food and nutrition security, including in the ASALs of West Africa
- 2.2 Develop ToRs and publicize request for EOI for recruitment of 2 experts (digital agriculture, and land management) to undertake feasibility studies on uses, policy and regulatory issues of digital agriculture, with focus on climate adaptation, land management and resilience for food and nutrition security
- 2.3 Undertake the 2 feasibility studies; one on uses, policy and regulatory issues of digital agriculture resilience for food and nutrition security, and the other on; uses, policy and regulatory issues of land management and resilience for food and nutrition security
- 2.4 Validate results of feasibility studies in general assembly of the IDDRSI platform and propose mechanisms for institutionalizing recommendations

3. Regional training of trainers on a/some specific solutions/technologie(s)

Sub-activities and implementation modalities

- 3.1 Identify 2 of the most pertinent climate based resilience technologies widely acclaimed and acknowledged as requiring widespread capacity building in the IGAD region.
- 3.2 Develop ToRs and publicize request for EOI for recruitment of 2 experts with the pedagogic capacity to lead training of trainers' sessions / or use experts in ICPAC and ICPALD as trainers of trainers of government agencies, project personnel and civil society organizations in the IGAD region
- 3.3 Identify institutions (government, project personnel and civil society organizations) with training role requiring training
- 3.4 Plan, develop training program and effectively deliver training of trainer's sessions in the target IGAD countries and trans-boundary clusters

4. Identification and support (regional competition + grant) at regional level to digital solutions that foster resilience in FNS and give opportunity for young entrepreneurs (making sure to involve women and other vulnerable groups) to deliver services across the border

Sub-activities and implementation modalities

- 4.1 Take stock and characterize digital solutions that foster resilience in food and nutrition security (FNS) in terms of greatest impact, among young entrepreneurs in the IGAD region
- 4.2 Design guidelines and terms of references for a regional competition to identify the most successful digital solutions that foster resilience in FNS
- 4.3 Define ToRs and publicize EOI for organizer / manager of the regional competition / or engage IGAD Centers / or partnership with competent CGIAR Center

- 4.4 Develop program of the regional competition, including grants to winners in publicity pamphlet; print, send out special and general invitations, and publicize online.
- 4.5 Prepare regional competition grounds and related logistics, and effectively hold regional competition

5. Undertake feasibility study to develop frameworks for data standards, use of farmer or user data anonymization and protection from discriminatory practices in cooperation with farmer cooperatives and insurance providers

Sub-activities and implementation modalities

- 5.1 Take stock of the results of existing studies on frameworks for data standards and anonymization techniques that protect users' data from discriminatory practices (including in the ASALs of West Africa)
- 5.2 Take stock of cooperatives and insurance providers in the IGAD region, willing to participate in the feasibility study
- 5.3 Develop ToRs and publicize request for EOI for recruitment of 1 expert to undertake feasibility study (2 months) on frameworks for data standards and anonymization techniques that protect users' data from discriminatory practices
- 5.4 Present results of feasibility study in general assembly of the IDDRSI platform and based on study results, advocate effective development of frameworks for data standards and anonymization techniques that protect users' data from discriminatory practices

6. Undertake studies on regional enabling business environment (payment structure, legal registration, mobile money platform access) and supportive policy for bundled payment services and climate indexed insurance.

Sub-activities and implementation modalities

- 6.1. Identify and characterize enabled business environment i.e. improved payment structure, easy legal registration, easy access to mobile money platforms etc. resulting from supportive policy for bundled payment services and climate indexed insurance
- 6.2 Take stock of enabled business environments in the IGAD region, resulting from supportive policy that led to bundled payment services and climate indexed insurance.
- 6.3 Develop ToRs and publicize request for EOI for recruitment of 2 experts to undertake studies on supportive policies for regional enabling business environment for improved payment structure, easy legal registration, easy access to mobile money platforms in connection with (a) bundled payment services and (b) climate indexed insurance.
- 6.4 Present results of studies in general assembly of the IDDRSI platform and based on study results, advocate institutionalization / adoption of the recommended policies

Activity group n° 4.3.1: Support development and improvement of weather and climate services

1. Support climate and Weather Observation Networks and Infrastructure and Data Processing for Enhanced provision of HYDROMET Services.

Sub-activities and implementation modalities

- 1.1 Take stock of climate and weather observation networks and their infrastructure in the IGAD region
- 1.2 Contact climate and weather observation networks to solicit information on their infrastructural and data processing challenges and needs for the provision of hydro-meteorological services
- 1.3 Engage partnership with ACMAD through ICPAC for the development of appropriate packages to enhance infrastructural and data processing capacity for improved delivery of hydro-meteorological services by identified weather observation networks
- 1.4 Effectively provide required data processing capacity and infrastructural support to identified weather observation networks with the collaboration of international partners

2. Develop Appropriate HYDROMET data and model applications, products and services and Dissemination to meet the needs of RMCs and Region

Sub-activities and implementation modalities

- 2.1 Take stock of current HYDROMET data packaging, model applications, products and services offered in the IGAD region and compare with those offered in the West Africa ASALs region and elsewhere to identify gaps
- 2.2 Select areas needing improvement in terms of data packaging, model applications, hydro-meteorological products and hydro-meteorological services
- 2.3 Design, cost and develop guidelines for hydro-meteorological data packaging, model applications, hydro-meteorological products and hydro-meteorological services
- 2.4 Disseminate guidelines and packages for uptake by hydro-meteorological institutions in IGAD Members States

3. Promote climate and Weather User and Stakeholder Interaction

Sub-activities and implementation modalities

- 3.1 Develop ToRs, publicize request for EOI for consultant to assess the level of interactions between producers of climate information, interpreters or processors of climate information, and users in terms of impediments of interactions
- 3.2 Effectively assess impediments (through sample survey) of good interactions between climate data producers, processors and users
- 3.3 Present results and recommendations of survey in IDDRSI general assembly meeting, advocate uptake of recommendations including their institutionalization by IGAD Member States.

Activity group n° 4.3.2: Support for mainstreaming climate risk finance and insurance

1. Establishment of a standards certification body for quality index insurance at the regional level

Sub-activities and implementation modalities

- 1.1 Take stock of index insurance standards certification bodies at the national level in IGAD countries in terms of challenges that they face across borders (clusters) and regionally, and the necessity to transpose the certification of index insurance standard to the regional level.
- 1.2 Develop ToRs and publicize request for EOI for the recruitment of an institutional expert to develop the necessary job descriptions and expert profiles to constitute the regional index insurance body
- 1.3 Recruit and supervise assessments and proposals by institutional development expert designing regional body to oversee certification of index insurance standards
- 1.4 Present the results / blue-print of the regional index insurance standards certification body proposed by the institutional development expert to the IDDRSI Steering Committee and advocate for adoption and implementation
- 1.5 Effectively set up regional body to oversee certification of index insurance standards

2. Investment in data collection, validation infrastructure and standards at the regional level

Sub-activities and implementation modalities

- 2.1 Use existing infrastructure at ICPALD and ICPAC to define data collectors, validation infrastructure and standards; and investigate impediments to data collection, validation infrastructure and standards in IGAD countries, including at trans-boundary cluster levels
- 2.2 Use existing partnerships including with ACMAD and partners to determine the costs needed to improve and give legitimacy to data collection, validation infrastructure and standards at the trans-boundary cluster and regional levels
- 2.3 Use existing infrastructure at ICPALD and ICPAC to determine the most appropriate modalities and effectively invest in data collection, validation infrastructure and standards at the regional level

3. Technical assistance for strengthening and establishment of digital services for parametric/index insurance for climate risks.

Sub-activities and implementation modalities

- 3.1 Take stock of gaps and weaknesses of existing digital services for parametric/index insurance targeting climate risks.
- 3.2 Develop ToRs and publicize request for EOI for the recruitment of an institutional expert to develop the necessary job descriptions and expert profiles for a technical unit at ICPAC or ICPALD / and modalities of operation to support the private sector in digital services for parametric/index insurance targeting climate risks.
- 3.3 Effectively set up unit to provide technical assistance to climate change related parametric/index insurance brokers

4. Strengthening local and regional livestock value chains and national/regional markets for fodder and other livestock needs supply to sustain insurance uptake

Sub-activities and implementation modalities

- 4.1 Identify and take stock of specific challenges faced by local and regional livestock value chains and national/ regional markets for fodder and other livestock needs
- 4.2 Develop ToRs and publicize request for EOI for the recruitment of a livestock expert / or use the services of ICPALD to investigate modalities for strengthening local and regional livestock value chains and national/ regional markets for fodder and other livestock needs
- 4.3 Supervise livestock expert and validate acceptable modalities (by ICPALD) for strengthening local and regional livestock value chains and national/ regional markets for fodder and other livestock needs
- 4.4 Set up process and modalities, and effectively strengthen local and regional livestock value chains and national/ regional markets for fodder and other livestock needs in a bid to sustain the uptake of insurance

6. FEASIBILITY OF TRANS-BOUNDARY CLUSTER MANAGEMENT⁶

6.1 Definition and scope

According to IDDRSI, a “cluster” is defined as “a geographic space that cuts across multiple political-administrative units within the country and international borders, where a range of resources, services, cultural values are shared by pastoral and agro-pastoral communities, and in which stakeholders aim to develop and implement coordinated investments to enhance resilience and sustainable development”. Clusters in the IGAD region are associated with business corridors. Their management ranges from informal and unwritten local conventions such as between traditional cross-border communities, to low level collaboration agreements such as between National Park administrations of trans-boundary conservation areas, to high level bilateral agreements where Heads of State meet to agree on management orientations. As indicated in section 3.2 further above, the IGAD region contains the following major clusters, (a) IGAD Cluster n° 1: AKA Karamoja Cluster, 4 Countries - Uganda, Kenya, S-Sudan and Ethiopia (b) IGAD Cluster n° 2: AKA Borena/ Marsabit-Moyale Cluster; 2 Countries - Ethiopia and Kenya (c) proposed Cluster n° 3: Mandera cluster; 3 Countries- Ethiopia, Kenya and Somalia (d) proposed Cluster n°4: Dikhil cluster; 2 Countries - Ethiopia and Djibouti (e) Cluster n° 5; Two (2) Countries: Ethiopia and South Sudan (f) proposed Cluster n°6. New Area; 3 Countries - Ethiopia, South Sudan and Sudan (g) IGAD Cluster n° 7; three (3) countries - Eritrea, Sudan and Ethiopia, and (h) proposed Cluster n°8: Ethio-Somali cluster; 2 Countries - Ethiopia and Somalia.

Analyses of trans-boundary area management reports from the IGAD region and similar areas in Africa reveal that the major threats and weaknesses to sustainable management in trans-boundary woodlands, forests, parklands and watersheds, in order of importance, are (a) encroachment by transhumance and excessive grazing (b) encroachment of traditional agriculture, (c) unplanned cutting of wood, timber and poles (d) wildlife related crime and poaching, (e) wildfires, (f) policy differences and problems of poor collaboration (g) incompatible mining and quarries, (h) encroachment by expanding local settlements, (i) improper NTFP removals facilitating forest or woodland fragmentation, (j) land-use conflicts and problems of tenure, (k) encroachment due to poor knowledge of boundaries, (l) poor management due to outdated or inexistent

⁶ Some of the elements in this section were consulted from: Nganje, M. (2018 - unpublished): Study on trans-boundary forest resources in Africa. Study undertaken for the African Forest Forum, Nairobi, Kenya 2018

management plans, (m) invasive species, including forest, woodland or wildlife diseases and pests and (n) poor management due to inadequate management capacity.

6.2 Fundamental challenges and pathways for organising transboundary clusters⁷

The major problem in trans-boundary clusters is the tendency of people on the side of the border with depleted resources to plunder those on the other side of the border. The solution is to develop natural resource management agreements between institutions, communities, networks and professional affiliations on one side of the border with those on the other side of the border. Such arrangements range from: informal agreements or unwritten local conventions, where traditional authority upholds resource-use measures such as between their communities and transhumant populations; low level formal agreements, which are signed local conventions, declarations of intent, Protocols or memorandums of understandings (MoUs) for the management of resources of the landscape. While unwritten conventions are based on tradition and administered by traditional authority, the signed local convention is a modern tool, approved by government authority. It is signed by heads of communities on both sides of the border, between sedentary and transhumant communities or between host and migrant / displaced communities and stipulates the responsibilities, benefits and sanctions of resource users from the traditional perspective; the trans-boundary bilateral or multilateral agreement or Treaty, is a formal accord developed at the highest level of policy-making between States or Governments. It is ratified by country representatives, and sets clear legal arrangements between the signing parties. It includes the partial renunciation of sovereignty over national parts of the trans-boundary cluster, harmonization of policies and important practices, institution of multi-level and specialized concerted management entities to facilitate sector-level cooperation between countries, and the possibility to incrementally produce legal instruments binding to the parties. The general tendency is to move from informal agreements to low level formal agreements and eventually to bilateral or multilateral conventions. Whichever the level, the objective of trans-boundary cluster agreements is to ensure peace among neighbors and integration among countries.

6.3 Key driving forces of transboundary cluster landscape degradation

Threats and weaknesses within the context of their driving forces are briefly described with proposals in the form of orientations for measures of their containment. Although the preceding threats and weaknesses in section 5.1 are reported for trans-boundary landscapes, the socio-economic contexts around the landscapes, i.e. population growth and pressure, poverty and the desire for development, market arrangements, national institutional set-up, culture and customs, policy and laws related to subsidies, incentives, land and resource tenure arrangements; may be different for the various IGAD countries sharing the same trans-boundary landscape. Incidentally, these are also the fundamental drivers of forests, woodlands and watershed degradation.

- Environmentally insensitive policies (subsidies, incentives, taxes, land and forest tenure)

Until recently, most government policies in countries of the IGAD region were incentives for biodiversity, and land degradation. For example, to be granted ownership of virgin wildlands, or even to prove ownership, one had to first clear the land, usually without prior consideration of biodiversity or degradation factors. Moreover, natural land clearing was promoted, which is still the case in some countries, to plant cash crops associated with receiving subsidized fertilizers and other farm inputs, as well as free agricultural extension services.

- Culture and local customs

Indigenous communities have lived in evolving ecological settings for generations during which they developed life-styles and belief systems drawing on their expert knowledge of wildlife, local plants and ecology (Xu *et al.* 2005)⁸. In the Horn of Africa, this ecological experience led to the development of

⁷ Nganje, M. (2018 - unpublished): Study on trans-boundary forest resources in Africa. Study undertaken for the African Forest Forum, Nairobi, Kenya 2018

⁸ Xu, J., E.T. Ma., D. Tashi, Y. Fu, Z. Lu, D. Malick. (2005). Integrating sacred knowledge for conservation: Cultures and landscapes in south west China. *Ecology and Society* 10(2): 7. Url: <http://www.ecologyandsociety.org/vol10/iss2/art7>

traditional regulations to perpetuate the use of natural resources, such as: prohibitions from killing or eating revered wildlife, permissions before felling special or revered tree species, abstention from farm work for some days of the week or during certain seasons, setting aside sacred groves whose sanctity and primeval qualities were upheld by local cult institutions, and more. While these appear favorable for the conservation or sustainable management of woodlands, forest groves and wildlife, other cultural practices such as the traditional and unplanned use of fire in agriculture and pastures are known to have contributed towards the dissipation of woodlands and biodiversity over the years.

6.4 Mechanisms for effective management of trans-boundary clusters

Communities inhabiting cross-border areas face common challenges and are often interconnected through, amongst others; natural resource sharing, livestock movement, regional trade and trans-boundary human and animal diseases. This provides opportunities to initiate local dialogues that may lead to more collaborative development agenda in crossborder areas.

6.4.1 Collaboration towards harmonization of policy differences

The policy harmonization process is pursued through national legislative decisions (parliament in some countries and sector level ministerial departments in others). IGAD can effectively promote and support the process.

6.4.2 Collaboration in secure tenure and tenure security

This assessment identified challenges of tenure collaboration at three levels, (a) the national policy and institutional level, (b) the different sectorial levels of government and (c) the trans-boundary field level, where landscape actors pursue goals most often with conflicting objectives. Moreover, at the government sector level, ministerial department responsible for mining, may grant mining exploitation licenses in conservation areas or in multi-purpose trans-boundary landscapes.

The mechanism advocated here is at two levels, (a) the landscape level, using participatory mapping with resource users to delineate different use zones and (b) at the national level, using the Internet and satellite technology in a participatory and well-coordinated manner to designate landscapes for different use categories. In this regards, potential collaborators include: organizations specialized or associated with the generation of satellite imagery or spatial research institutions

5.4.3 Collaboration in the management of unplanned cutting of wood and poles

At the trans-boundary cluster level, the first step is to collaborate with administrative sector and municipal level authorities in the different national administrative areas of the landscape to identify the actors or enablers of unplanned cutting of wood and poles i.e. clandestine chainsaw operators, charcoal makers, commercial firewood collectors, as well as direct artisanal wood collectors of the rattan, carving and chewing stick cottage industries. The next step is to work with sector and municipal level officials to organize these informal groups into syndicates or cooperatives or strengthen them if they already exist. This will be followed by signing collaboration guidelines with the groups through MoUs specifying i.e. prohibited areas in the clusters for their activities, sanctions etc. Special training programs are thereafter developed and dispensed to the groups starting broadly with the relevant national laws and policies, vision of the landscape, general awareness of sustainable natural resource management and narrowed to relevant technical themes such as; sustainable land management (SLM) and land restoration techniques, timing of wild collections and collection methods etc. The objective is to empower the groups and syndicates towards sustainable production of their products. The trans-boundary cluster initiative may consequently promote occasional evaluation forums of the activities of the syndicates or cooperatives.

6.4.4 Collaboration in the management of incompatible mining and quarries

Actors of incompatible mining and quarries in clusters are either industrial entrepreneurs or artisanal mining campers or operators installed in trans-boundary landscapes. In addition to causing physical degradation of soils and woodlands through digging operations, miners sometimes use chemicals that pollute water sources, divert streams in the case of alluvial mining, and enhance sedimentation with potential negative effects to human populations downstream, and harmful to livestock and wildlife. Artisanal miners could be displaced persons on the landscape. Collaboration targeting illegal miners should involve relevant decentralized sector level officials, administrative and municipal authorities with the collaboration of specialized projects. Local conventions can be signed with installed miners and training provided, starting with information on national policies and laws, knowledge of the Kimberly Process Certification Scheme (KPCS), vision of the landscape, general awareness of sustainable management of natural resources, soils and landscape restoration and more. Local conventions should provide for forums to share challenges and assess progress on the implementation of landscape management commitments.

6.4.5 Collaboration on challenges related to transhumance, excessive grazing and wildfire

Collaboration that addresses challenges of transhumance, excessive grazing and wildfire in trans-boundary landscapes starts by working with the relevant administrative and municipal authorities and partners to identify actors of the referred challenges. They include in the case of transhumance and grazing: mobile and sedentary cattle grazers, but also local livestock management agencies and veterinary services as they exercise considerable influence over cattle grazers. The next step is to engage livestock sector officials, related agencies and partners starting at the different national jurisdictional levels to organize sedentary and transhumance grazers into networks, or strengthen existing ones. This is followed by establishing the appropriate collaboration mechanism with the rejuvenated networks, i.e. local conventions, specifying amongst others; prohibited areas for grazing, authorized and prohibited passage-ways, and in the case of fires in pasture management; conditions for obtaining a burning permit, illustrations or maps of areas for burning, sanctions etc. Special training programs are eventually developed and administered to the network members, starting with the relevant national laws and policies, vision of the landscape, conservation and sustainable natural resources management awareness, and narrowed to relevant technical themes such as; organization of grazing, propagation of improved fodder species, paddocking, timing and organization of cattle movements, wildfire management and; support of network evaluation forums.

6.4.6 Collaboration in managing cash crop production in trans-boundary clusters

The actors of extensive agriculture in managed trans-boundary landscapes are commercial agricultural entrepreneurs known to expand unplanned cash crop farming around clusters. In the case of subsistence farmers, they can be identified and targeted through their traditional and municipal representatives. Commercial cash crop entrepreneurs meanwhile may also use chemicals most of which could be harmful to livestock and wildlife when transported downstream by the forces of erosion. They operate through producer cooperatives and are best targeted through such mediums. These groups are variously identified around the trans-boundary landscape with the support of relevant sector level, administrative, traditional, municipal authorities and partners. The process for engaging subsistence farmers is different from that of engaging commercial entrepreneurs and starts with the participatory development of simple land-use maps for areas within their jurisdictions. When developed and authorized by sector level and administrative officials, these simple maps, which contain planned-use and no-go areas, serve as part of the local convention between the trans-boundary initiative and farming groups. Training, targeting the groups includes information on the relevant national policies and laws, vision of the landscape, general awareness of sustainable management of biological resources, and with support from relevant research partners; narrowed to adapted farm cultural practices such as the use of multipurpose agroforestry species. Protocols may be necessary with commercial farmers, through their cooperatives to limit the use of chemicals in managed clusters.

6.4.7 Collaboration towards development of trans-boundary cluster management plan

The development of a trans-boundary cluster or regional landscape management plan depends on an agreed justification for the necessity of the trans-boundary cluster, existence of National Parks or Reserves or proposed thereof on both sides of the border, minimum land tenure conflict, and a cooperation agreement between the cluster's countries involved. The management plan is necessarily developed in a participatory

manner with a core multidisciplinary team, and involves representatives of the different actors of the cluster at the different government sector levels, technical development partners, civil society, local communities and others. It can also be developed using the same sector-level framework and multi-disciplinary team at the different national levels, and harmonized by experts at the regional trans-boundary cluster level. The plan itself is a tool which guides and regulates management interventions on the landscape for the medium to long term i.e. five to ten years. Annual operation plans are developed by trans-boundary cluster personnel to guide operations on a yearly basis, based on the management plan. The plan announces the vision of the cluster, the goals and objectives of its different geographical parts based on results of specialized studies, biological inventories, socioeconomic surveys and corresponding maps and sketches. The trans-boundary cluster is complex and different zones i.e. ecological corridors, nature reserves, wood collecting concessions, community woodlands and forests, and transhumance routes, human and commercial / business passage-ways etc., require particular management interventions as well as detailed and distinct action plans. The mechanism for developing the action plans should necessarily be participatory.

6.4.8 Collaboration to improve trans-boundary cluster technical management capacity

In addition to the relevant technical training in landscape ecology, effective management of trans-boundary clusters requires; knowledge and practical experience in the development of the cluster's management plan. Excellent interpersonal management skills are needed to facilitate collaboration in the effective administration of different interventions at all levels of the cluster. Each national component of the cluster is necessarily managed by a team capable of assuming rotating regional coordination of specific aspects of the whole trans-boundary cluster, according to agreed management arrangements between the bordering countries. This implies general operational knowledge of the institutional, administrative, judicial and social processes of the neighboring country or countries and specific knowledge at the landscape level. It should be acknowledged that a national component of the trans-boundary cluster may have several managers i.e. one or two managers according to the number of National Parks, Chief Warden of a Forest Reserve, Manager of a Community Forest, head of a specific zoological or botanical Sanctuary etc. The management team should also be knowledgeable of the operations of the different components of the Park or Reserve i.e. administration, protection, ecological monitoring, research, recreation and tourism, public relations, education and sensitization, etc. The technical level of trans-boundary cluster management personnel at the national or regional level can be upgraded starting with a capacity needs assessment and fulfilled by using resource persons for internal trainings, seminars and workshops followed by using iterative monitoring and evaluation processes.

6.5 IGAD's challenges and way forward in transboundary cluster management

According to the 11th IDDRSI platform steering committee meeting of 23rd July 2020, building synergy among the many cross border activities by IGAD offices has so far been elusive. Cross-border activities are negotiated and implemented by civil society actors in concert with local stakeholders without government intervention or acknowledgement even as international partners authorized to engage transboundary cluster interventions expand them at will. It is therefore common to consult different documents where the same cluster is named differently or where parts of clusters are given names based on the promoting agency or the development partner. According to the 11th IDDRSI platform steering committee meeting of 23rd July 2020, such uncoordinated engagement creates not only bad image among the targeted cross border communities but also loss of organisational credibility for IGAD. A new or consolidated IGAD entity should lead coordination, planning, programming and implementation of all IGAD crossborder clusters. This might imply giving expanded executive functions to CEWARN.

7. GOVERNANCE FEASIBILITY AND IMPLEMENTATION APPROACH

The DRSLP – 2 governance framework specifies the different responsibilities of the main stakeholders to be involved in decision-making and implementation based on /and to build on the experience acquired during DRSLP – 1.

7.1 Executive Agency and administrative anchor

The Intergovernmental Authority on Development (IGAD) will constitute the political or executive agency and administrative anchor of DRSLP 2. IGAD will oversee execution of DRSLP – 2 based on its 2019 – 2024 regional strategy and in compliance with agreements with its Member States as well as with the African Development Bank (AfDB). The executive function also includes oversight to ensure compliance with international Conventions and Treaties in which IGAD Member States constitute Parties, such as the UNFCCC including its Paris Agreement, the Global Mechanisms of the UNCCD, the Convention on Biological Diversity (CBD), the African Convention on Conservation of Nature and Natural Resources and other conventions advocated within the African Union. Because of the extensive innovative technologies, DRSLP – 2 will combine the functional management approach with project teams. The different IGAD divisions will exercise the executive functions over DRSLP – 2 program areas within their competence. Considering the importance and cross-cutting nature of gender aspects, the Gender Affairs Unit of IGAD will ensure its executive oversight. Meanwhile, IGAD will not delegate the executive function of DRSLP – 2 to another African regional community, entity or agency.

7.2 Implementing Agency

IGAD will delegate technical implementation and overall management of DRSLP – 2 to its IDDRSI Platform Coordination Unit (PCU). The implied management function will also include financial management. The Coordinator of the IDDRSI PCU will act as day to day Project Manager; responsible for planning and oversight of the implementation of field activities, project procurements, and more. IGAD will also delegate implementation of specific technological sub-components of DRSLP – 2 to its indicated regional Centres such as; ICPAC, ICPALD, CEWARN, and IFRAH. ICPAC will lead sub-components on hydro-meteorological and climate services, ICPALD on parametric insurance and livestock related technologies, CEWARN on trans-boundary cluster interventions and development, and IFRAH on food security and nutrition related technologies. Special programs such TAAT will be implemented through a dedicated project team in direct collaboration with IGAD. The required expertise for the different innovative technologies will be determined in an IDDRSI forum to be organized by the executive agency alongside the indicated IGAD centres.

7.3 Partnership coordination mechanism

The development and implementation of DRSLP – 2 will involve a large number of IGAD partners. Examples at the regional level will include specialized studies and research agencies such as ICARDA, ILRI, RCMRD, ICRAF, ACMAD, IFPRI and others. Partners at the national level will include IGAD focal point government ministries or others which contribute directly to IGAD's advocated resilience initiatives. These could be as varied as the government ministerial departments responsible for Agriculture and Rural Development, Environment and Climate Change, Lands and Forestry, Water and Mines, Meteorology and Hydrology and others. They will provide technical support to DRSLP - 2 and ensure that all measures to be implemented are aligned and relevant to national and local priorities. In a bid to avoid duplication of efforts, linkages will be made with the initiatives of relevant international development and civil society partners. The IDDRSI Platform, described in section 3.1.1 further above constitutes a perfect framework to ensure partnership coordination.

7.4 Project control mechanisms

A Program Steering Committee (PSC) described in section 3.3.2 further above, will oversee the overall program implementation. It will be responsible for undertaking discussions of reports and recommendations of corrective actions on programmatic and budgetary issues. Control at the country level will be assured by the IDDRSI national coordination mechanism, led by the National IDDRSI Coordinator (NIC). The IDDRSI national mechanism exercises the control functions of approving and monitoring the implementation of national annual operational plans and budgets.

7.5 Gender equality and women's empowerment

DRSLP – 2 will address gender inequalities in the IGAD region in support of the 'political will', manifested by IGAD country ministers responsible for gender issues, who occasionally meet to advocate the engagement of women in all development initiatives in the region. This has led to the creation of an IGAD Gender and

Resilience Working Group, whose operationalization is advocated in DRSLP – 2. Also, IGAD has been working towards a ‘Gender Management System’, which is essentially a network of structures, mechanisms and processes put in place within an existing organisational framework, to guide, plan, monitor, and evaluate the process of mainstreaming gender into all areas of the organisation’s work. The objective is to achieve greater gender equality and equity within the context of resilience and sustainable development.

8. SUSTAINABILITY

The proposed administrative anchor of DRSLP – 2 on IGAD, which is a permanent institution established by governments of the Horn of Africa, provides assurance that IGAD itself will benefit from DRSLP – 2 project outputs and outcomes, including the capacity building of its personnel. IGAD centres, constituting permanent and perennial structures will be directly responsible for the implementation of DRSLP – 2 and consequently benefit not only in the scientific exposure facilitated by the project but also in the capacity building, especially of its young personnel who would be endowed with the capacity to continue implementing tested and accepted technologies well into the future. At national level, governments will be directly involved, working in partnership with IGAD centres and other technology promoting partners from whom they will acquire strategic knowledge and expertise to permeate in the government fabric. DRSLP – 2 will also provide direct support to governments such as the development of an appropriate policy environment and the development of national resilience supportive strategies. Such outputs are expected to lead to outcomes that will facilitate resilience initiatives at all levels of the national territory. The direct participation of local beneficiaries constitutes a blueprint for sustainability of project outcomes through processes such as training of trainers, the facilitating of access to finance for start-up enterprises and more.

Pertaining to resource mobilization, DRSLP – 2 will likely support the setting up of a regional adaptation fund to generate revenue that will allow IGAD to continue funding some resilience activities after the end of the project. This constitutes a veritable exit strategy to ensure the sustainability of project investments.

9. MANAGEMENT OF RISKS

Potential risks	Mitigation measures
Prevalence of the spread of COVID – 19 can affect project development and execution	<p>The spread of COVID – 19 has already led some IGAD countries to stop cross-border crossings through transboundary clusters</p> <p>Fear of COVID – 19 prevails mainly because of the poor acceptance of vaccines. IGAD countries should employ carrot and / or stick measures to encourage vaccinations. Carrot measures can include reduced prices for vaccinated persons in key supermarkets and certain shops. Stick measures can constitute the opposite!</p>
Lack of adequate expertise in IGAD institutions and IGAD centers to guide implementation of technological innovations	<p>The technological innovations proposed in DRSLP – 2 are numerous and varied. There is a possibility that there may be insufficient and/or inadequate capacity to follow-through with the guidance necessary to plan and implement proposed innovative technologies.</p> <p>Take stock of technological institutions, where the requisite capacity may be available and propose partnerships.</p>
There could be challenges related to the acceptance and uptake of proposed technological innovations.	<p>There are examples where constructed water-points by projects, were simply abandoned by beneficiary communities.</p> <p>Studies should be undertaken to identify how first-time technological innovations might affect the norms and values of beneficiary communities. Such investigations will identify technology acceptance impediments and propose how these could be circumvented without negatively affecting local culture.</p>
Unpredictable shocks of droughts, floods, extreme heat waves or other natural challenges might affect project development.	<p>Unpredictable events such as floods, droughts or even migratory crickets are likely to stop or delay project interventions.</p> <p>The project should reinforce the capacity of CEWARN and ICPAC early into DRSLP – 2 so that partnerships can be developed and satellite facilities exploited.</p>

	Unpredictable natural shocks and conflicts can be observed and reported at least 10 days before their arrival or land-fall and potential damages avoided
Sociopolitical challenges leading to insecurity	<p>The African Development Bank (AfDB) will not support implementation of development activities in conflict zones.</p> <p>If sociopolitical challenges or civil strife occur early into the project, project sites may have to be changed. If they occur midway or later into the project, project activities may have to be phased for a specific duration based on a concerted decision, beyond which, other contingency measures would have to be applied.</p>
Inadequate co-funding opportunities	<p>The selection of DRSLP – 2 partners should be based not only on their technical capacity but also on the similarity of their objectives with those of DRSLP – 2 as well as concrete field experience, from which co-funding can be apportioned.</p> <p>Institutions likely to comply with co-funding requirements include the Pan-African Institute of the Great Green Wall, which undertakes field activities under section 4.2.2 of this report, i.e. promotion of climate-smart innovations and technologies. The African Great Green Wall initiative is operational in IGAD countries such as Djibouti, Ethiopia, Eritrea, Sudan and Somalia,</p>

10. INDICATIVE BUDGET

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Component	Activities	Cost USD (Million)	% Budget
Component 1			
Sub-Comp 1.2	1. Undertake regional quantitative study on land loss through erosion and degradation and its impact on climate change mitigation and adaptation	0.25	% budget Component1
Sustainable management of agro-pastoral land	2. Generate spatial knowledge about the pastoralist land tenures and livestock corridors in the IGAD Clusters in terms of the impact of climate change for the purposes of conflict sensitive and inclusive land use planning	1.2	
	3. Design policy, administrative, and educational tools that assist local communities, Member States, and NGOs, to reconcile land tenure conflicts in the face of climate change in the IGAD Clusters	0.55	
	4. Produce catalogues of land conflicts in IGAD clusters where project interventions are being done and how they can be transformed to enhance resilience and adaptation to climate change in the areas	0.4	
Sub-Total: Regional Activities in Component 1.2		2.4	1.3%
Component 1			
Sub-Comp 1.3	1. Provide technical assistance to IGAD in the development of harmonized regional seed policies and a regional seed roadmap for specific regional commodities,	0.5	% budget of Component1
Climate-smart innovations technologies (CSI&T)	2. Operationalize Fall Army Worm control by providing a strategy paper at the national and regional levels	0.04	
	3. Support and provide technical assistance to IGAD on the development of national and regional strategies for cross boarder agriculture and livestock technologies dissemination	0.6	
	4. Prepare targeted national policy briefs regarding scaling of technologies	0.2	
	5. Organize national policy engagement events to influence policy /decision makers to improve political support for	1.2	

9 Total Indicative Budget Component 1 = 184.6M USD

10 Total Indicative Budget Component 2 = 110.7M USD

11 Total Indicative Budget Component 3 = 36.9M USD

12 Total Indicative Budget Component 4 = 36.9 USD

	enhancing the enabling environment for technologies dissemination		
Sub-Total: Regional Activities in Component 1.3 (CSI &T)		2.54	1.38%
Component1 Sub-Comp 1.3 knowledge management and dissemination (NM&D)	1. Develop training of trainer's guidelines	0.1	% budget of Component1
	2. Develop and disseminate an online catalog of technologies to be maintained by IGAD and Member Countries	0.4	
	3. Organize at least one annual technology fair showcasing the benefits of climate smart agriculture technologies and how they contribute to building agriculture resilience	1.2	
	4. Organize a regional policy forum to sensitize policy makers and create support for scaling irrigation and agricultural water management technologies	0.8	
Sub-Total: Regional Activities in Component 1.3 (NM&D)		2.5	1.35%
Component1 Sub-Comp 1.3 Execution of TAAT technologies	1. Overall oversight and coordination: program management, M&E (internal), reporting - quarterly and annual technical and financial reports	2	% budget of Component1
	2. Monitoring and Evaluation (External)	1	
	3. Ensuring quality of technologies, approaches, trainings, extension materials.	1.1	
	4. Sharing knowledge across region	0.5	
Sub-Total: Regional Activities in Component 1.3 (TAAT)		4.6	2.5%
Total Regional Activities in Component 1		12.04	6.5%

Component	Activities	Cost USD (Million)	% Budget
Component 2 Sub-Comp 2.1 access to advisory services and markets	1. Establishment of a regional innovation hub/ data center for coordination an knowledge sharing across innovation partners, governments, and others stakeholders.	1.6	% budget of Component2
	2. Feasibility studies on uses, policy and regulatory issues of digital agriculture, with focus on climate adaptation, land management and resilience for food and nutrition security.	1.2	
	3. Regional training of trainers on a/some specific solutions/technologie(s).	0.7	
	4. Identification and support (regional competition + grant) at regional level to digital solutions that foster resilience in FNS and give opportunity for young entrepreneurs to deliver services across-border.	0.8	
	5. Undertake feasibility study to develop frameworks for data standards for use of farmer data for user data anonymization and protection from discriminatory practices in cooperation with farmer cooperatives and insurance providers	1	
	6. Undertake studies on regional enabling business environment (payment structure, legal registration, mobile money platform access) and supportive policy for bundled payment services and climate indexed insurance.	0.8	
Sub-Total Regional Activities in Component 2		6.1	5.51%

Component	Activities	Cost USD (Million)	% Budget
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Component 3 Sub-Comp 3.1	1. Support climate and Weather Observation Networks and Infrastructure and Data Processing for Enhanced provision of HYDROMET Services	2	% budget of Component3
	2. Develop Appropriate HYDROMET data and model applications, products and services and Dissemination to meet the needs of RMCs and Region	2	
	3. Promote climate and Weather User and Stakeholder Interaction	1	
Sub-Total: Component 3.1		5	13.6%
Component 3 Sub-Comp 3.2	1. Establishment of a standards certification body for quality index insurance at the regional level	4	% budget of Component3
	2. Investment in data collection, validation infrastructure and standards at the regional level	2.2	
	3. Technical assistance for the strengthening and the establishment of digital services for parametric/index insurance for climate risks	2.5	
	4. Strengthening local and regional livestock value chains and national/regional markets for fodder and other livestock needs supply to sustain insurance uptake	3	
Sub-Total: Component 3.2		11.7	31.7%
Component 3 Sub-Comp 3.3	1. Facilitation of Regional Dialogue for coherence of NDC National measures	1.2	% budget of Component3
	2. Development of NDC implementation action plans building on country commitments to implementation of the Paris Agreement	0.8	
	3. Feasibility studies for identified pipeline of investments will promote more coordinated action in HoA for mutually desired results	0.7	
Sub-Total: Component 3.3 (NDCs)		2.7	6.3%
Component 3 Sub-Comp 3.3 development & dissemination of climate risk management tools	1. Strengthening institution capacities, increase data sharing and collaboration, in delivering climate services	1	% budget of Component3
	2. Support for the establishment of regional climate fund for the GHA region. (IGAD) and building capacity of ICPAC regarding accreditation to Green Climate Fund, mobilizing and management of climate change funds	2	
	3. Mainstream disaster/climate risk management into regional plans, policies and strategies	0.5	
	4. Support to operationalization of the East Africa Multi Hazards Watch System to serve as a regional platform for alerting against climate-related risks	2	
	5. Support the IDDRSI Regional Platform Coordination Unit in the monitoring of IDDRSI implementation at regional, national and sub-national levels	5	
	6. Support regional capacity to anticipate and timely respond to disaster risks	1	
	7. Strengthen IGAD Regional resilience report and resilience measurement	2	
	8. Support operationalization of IGAD Food Security, Nutrition and Resilience Analysis Hub (IFRAH)	4	
Sub-Total: Sub-Component 3.3		17.6	47.7%
TOTAL: Component 3		36.9	100%

Component 4	Activities	Cost USD	% Budget
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		(Million)	
Overall Management & Coordination	1. Effective and efficient regional management of the program by IGAD	10	% Budget Comp 4
	2. Management of national components at national and sub-national levels	8.5	
	3. Implementation of regional and national technical coordination including planning, supervision, monitoring, evaluation and reporting	10.9	
	4. Implementation of financial management including financial appraisals and annual audits	7.5	
	TOTAL: Component 4	36.9	100%

11. SUMMARY COMPONENT FUNDING PLAN

Project Components	Total provisional budget (Million USD)	Total regional indicative Budget (Million USD)	% regional indicative budget of total component budget
Component 1	184.6	12.04	6.5%
Component 2	110.7	6.1	5.51%
Component 3	36.9	36.9	100%
Component 4	36.9	36.9	100%
Total	369.2	91.94	

ANNEX 1: CLUSTER-REG ACTIVITIES: SUSTAINABLE MGT OF AGRO-PASTORAL LAND

Component 1/Sub-Component 1.2: Support for sustainable management of agro-pastoral land Activity 1: Undertake regional quantitative study on land loss through erosion and degradation and its impact on climate change mitigation and adaptation [Regional activity + field study to involve clusters]				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional and involve clusters 1 and 6	- IGAD (AED) - ICPAC, - IDDRSI/PCU	0.25 M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),	- IGAD (AED) - ICPAC, - IDDRSI/PCU - Karamoja coordination unit at Moroto - Supervisory government agencies	
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		

Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo	- IGAD (AED) - ICPAC, - IDDRSI/PCU - Relevant cluster projects - Supervisory government agencies	
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.25
Activity 2: Generation of spatial knowledge about the pastoralist land tenures and livestock corridors in the IGAD Clusters in terms of the impact of climate change for the purposes of conflict sensitive and inclusive land use planning [Regional activity + field study to involve active clusters]				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional and involve clusters 1 and 3 and 8	- IGAD (AED) - IDDRSI/PCU - ICPALD	1.2 M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemthia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),	- IGAD (AED) - IDDRSI/PCU - ICPALD - Karamoja coordination unit at Moroto	
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil		

[AKA Borena/ Marsabit-Moyale Cluster]		<u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi	- IGAD (AED) - IDDRSI/PCU - ICPALD - Ongoing Cluster projects - Supervisory government agencies	
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u>		

		- Nil Potential areas/districts/counties: Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	Areas selected by feasibility study: - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) Other potential areas/districts/counties: Dindar NP, Basunda, Galegu, Rumeila, Doka, al- Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	Areas selected by study: - Nil Potential areas/districts/counties: Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	Areas selected by feasibility study: - Nil Potential areas/districts/counties: Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo	- IGAD (AED) - IDDRSI/PCU - ICPALD - Cluster projects - Gov. agency	
	Somalia	Areas selected by feasibility study: - Nil Potential areas/districts/counties: Ceel Dheere, Beledweyne, Bogoosaar, Jiqley		
TOTAL COST				1.2M
Activity N° 3: Designing of policy, administrative, and educational tools that assist local communities, Member States, and NGOs, to reconcile land tenure conflicts in the face of climate change in the IGAD Clusters [Regional: engage key clusters in participatory development of policy and testing of tools]				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional: involve clusters in policy & tools development	- IGAD (AED) - IDDRSI/PCU - Relevant gov. agencies	0.55 m
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	Areas selected by feasibility study SNNP Region (8 districts) - Nyangatom, Dasenech, Hamer, Gachit, Geregesha, Maji, Bero and Goba Other potential areas/districts/counties Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),	- Karamoja coordination unit at Moroto	
	Ethiopia	Areas selected by feasibility study: - Nil Potential areas/districts/counties Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	Areas selected by study: - Nil Potential areas/districts/counties: Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	Areas selected by feasibility study: Kaabong district Other potential areas/districts/counties Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	Areas selected by feasibility study: - Nil Potential areas/districts/counties: Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	Areas selected by feasibility study:		

		Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyale, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib)		

		- Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiqley		
TOTAL COST				0.55M
Activity N° 4: Production of catalogues of land conflicts in IGAD clusters where project interventions are being done and how they can be transformed to enhance resilience and adaptation to climate change in the areas [Regional: engage key clusters in participatory development and testing of catalogues]				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional: involve active clusters in development and testing of catalogues	- IGAD (AED) - IDDRSI/PCU - Relevant gov. agencies	0.4M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geresgesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),	- Karamoja coordination unit at Moroto	
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		

Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality)		

		<u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.4M

ANNEX 2: CLUSTER-REG ACTIVITIES: PROMOTION OF CLIMATE-SMART TECHNOLOGIES

Component 1/Sub-Component 1.3: Support promotion of climate-smart innovations and technologies. [Creating an Enabling environment for dissemination of agriculture, livestock and aquaculture technologies]				
Activity 5: Provide technical assistance to IGAD in the development of harmonized regional seed policies and a regional seed roadmap for specific regional commodities,				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost
Regional	Regional	Regional:	- IGAD - Relevant government departments	0.5M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u>		

		Marsabit, Moyale, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> <u>Kungila, Chidu</u>		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesor, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ;		

		Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.5M
Activity 6: Operationalize Fall Army Worm control by providing a strategy paper at the national and regional levels				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional:	- IGAD	0.04M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geresha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyo, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		

	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesoru, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseeny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiigley		
TOTAL COST				0.04M
Activity 7: Support and provide technical assistance to IGAD for the development of national and regional strategies for cross boarder agriculture and livestock technologies dissemination				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost
Regional	Regional	Regional: involve active clusters in the participatory development and testing of strategies	- IGAD - ICPALD - Gov. agencies	0.6M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u>		

		- Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u>		

		- Nil Potential areas/districts/counties: Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.6M
Activity 8: Prepare targeted national policy briefs regarding scaling of technologies				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost
Regional	Regional	Regional:	- IGAD - IGAD Centers - Government agencies	0.2M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseeny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.2M
Activity 9: Organize national policy engagement events to influence policy /decision makers to improve political support for enhancing the enabling environment for technologies dissemination				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost

Regional	Regional	Regional	IGAD	1.2M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil		

		<u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesor, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiqley		
TOTAL COST				1.2M

ANNEX 3: CLUSTER-REG ACTIVITIES: CAPACITY BUILDING/KNOWLEDGE MANAGEMENT

Component 1/Sub-Component 1.3 Support for capacity building and knowledge management and dissemination [Capacity building and knowledge management and dissemination]				
Activity 10: Develop training of trainer's guidelines				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional:	IGAD, Govs	0.1M

Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiqley		
TOTAL COST				0.1M
Activity 11: Develop and disseminate an online catalog of technologies to be maintained by IGAD and Member Countries				
Cluster	Countries	Primary target and main impact zones		Cost USD
Regional	Regional	Regional: involve clusters in participatory development and testing of catalogue of technologies	- IGAD, Govs	0.4 M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South		

		Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties:</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties:</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties:</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		

Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.4M
Activity 12: Organize at least one annual technology fair showcasing the benefits of climate smart agriculture technologies and how they contribute to building agriculture resilience				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional: invite representatives of cluster stakeholders to annual technology fairs	IGAD, Govs	1.2M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil		

		<u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseeny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				1.2M
Activity 13: Organize a regional policy forum to sensitize policy makers and create support for scaling irrigation and agricultural water management technologies				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional:	- IGAD - Relevant gov. Agencies	0.8M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		

Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		

Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.8M

ANNEX 4: CLUSTER-REG ACTIVITIES: COORDINATION AND IMPLEMENTATION OF TAAT

Component 1/Sub-Component 1.3 Support for coordination of the implementation of TAAT technologies [Coordination of the implementation of TAAT technologies (in partnership with IGAD)]				
Activity 14: Overall oversight and Coordination: program management, M&E (internal), reporting - quarterly and annual technical and financial reports				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional:	IGAD, Govs	2M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2	Ethiopia	<u>Areas selected by feasibility study:</u>		

[AKA Borena/ Marsabit-Moyale Cluster]		- Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u>		

		- Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiqley		
TOTAL COST				2M
Activity 15 : Monitoring and Evaluation (external)				
Cluster	Countries	Primary target and main impact zones		Cost USD
Regional	Regional	Regional: evaluation missions must visit at least 3 clusters /yr where DRSLP-2 project activities are implemented i.e. Cluster 1, Cluster 3, cluster 7	- IGAD	1M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamer, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara		

		<u>Other potential areas/districts/counties</u> Marsabit, Moyale, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed,		

		Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				1M
Activity 16: Ensuring quality of technologies, approaches, trainings, extension materials				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional: test for quality of technologies in clusters and involve cluster representatives in testing for quality of trainings and extension services	IGAD, Govs	1.1M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		

	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				1.1M
Activity 17: Knowledge sharing across the region				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional	- IGAD, - Govs	0.5
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geresha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u>		

		Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesoro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseeny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil		

[Ethio-Somali cluster]		<u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.5M

ANNEX 5: FACILITATING ACCESS TO MARKETS THROUGH DIGITAL TECHNOLOGIES.

Component 2/Sub-Component 2.1 Facilitating access to advisory services and markets through digital technologies Activity 18: Establishment of a regional innovation hub/ data center for coordination of knowledge sharing across innovation partners, governments, and others stakeholders.				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional	- IGAD, - Govs	1.6M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u>		

		- Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u>		

		- Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				1.6M
Activity 19: Feasibility studies on uses, policy and regulatory issues of digital agriculture, with focus on climate adaptation, land management and resilience for food and nutrition security.				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional : the study to involve cluster landscapes and beneficiaries	- IGAD, - Govs	1.2M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				1.2M
Activity 20: Regional training of trainers on a/some specific solutions/technologie(s).				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD

Regional	Regional	Regional : at least 10% of trainers to be trained should come from trans-boundary clusters	- IGAD, - Govs	0.7M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil		

		<u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
[Ethio-Somali cluster]	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiqley		
TOTAL COST				0.7M
Activity 21: Identification and support (regional competition + grant) at regional level to digital solutions that foster resilience in FNS and give opportunity for young entrepreneurs to deliver services across-border.				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional : also involve young women and young men entrepreneurs based in transboundary clusters	- IGAD, - Govs etc	0.8M
Cluster N° 1	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South		
[AKA Karamoja Cluster]				

		Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties:</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties:</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties:</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		

Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.8M
Activity 22: Undertake feasibility study to develop frameworks for data standards for use of farmer data for user data anonymization and protection from discriminatory practices in cooperation with farmer cooperatives and insurance providers				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional : engage farmer cooperatives in trans-boundary clusters	- IGAD, - Govs	1M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP).		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		

	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u> Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u>		

		- Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferfer, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiqley		
TOTAL COST				1M
Activity 23: Undertake studies on regional enabling business environment (payment structure, legal registration, mobile money platform access) and supportive policy for bundled payment services and climate indexed insurance				
Cluster	Countries	Primary target and main impact zones	Lead Agency	Cost USD
Regional	Regional	Regional : include trans-boundary cluster entrepreneurs in the studies	- IGAD, Govs - others	0.8M
Cluster N° 1 [AKA Karamoja Cluster]	Kenya	<u>Areas selected by feasibility study</u> SNNP Region (8 districts) - Nyangatom, Dasenech, Hamar, Gachit, Geregesha, Maji, Bero and Goba <u>Other potential areas/districts/counties</u> Kapukirr, Kunyao, Lorukumu, Kakuma, Lokichogio, Kalemothia, Todenyang, Sigor, South Turkana Natural Reserve (NR), Marsabit National Park (NP),		
	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties</u> Kelem, Balala, Dande, Omo NP, Maki NP		
	South Sudan	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Lotuke, Nagichat, Logoforok, Nangolet, Lobira,		
	Uganda	<u>Areas selected by feasibility study:</u> Kaabong district <u>Other potential areas/districts/counties</u>		

		Nabilatuk, Moruita, Oboa, Kangole, Kotido, Loyoro, Kalabi, Kidepo NP		
Cluster N°2 [AKA Borena/ Marsabit-Moyale Cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Moyalé, Furroli, Méga, Gamud, Yabelo & Yabelo Wildlife Sanctuary (WS)		
	Kenya	<u>Areas selected by feasibility study:</u> Oromia region (7 districts) - Dillo, Guchi, Dubuluk, Dugda Dawa, Aga Wayu, Adola Rede and Wadara <u>Other potential areas/districts/counties</u> Marsabit, Moyalé, Sololo, Jibisa, Ileret, Sibilo National Park (NP)		
Cluster N°3 [Mandera cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dolo Odo, Sadi, Melka Meri, Comodo, Bogol Manyo, Moyale, El Mallaile, Bar Abir, Lema Shilindi		
	Kenya	Somali Region/ (8 districts) - Dollo-Ado, Barey, Higlooley, Gashamo, Ararso, Birkot, Goljano and Hadagala <u>Other potential areas/districts/counties</u> Banissa, Malka Mari, Malka Mari NP, Ramu, Mandera, El Dunuba, Takaba, Moyale		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> El Buru Hagia, Garbaharrey, Malkaaray, Madoville, Cir Kud, Luuq		
Cluster N°4 [Dikhil cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Manda, Elida'ar, Serdo, Afambo, Asayita, Arissa, Welo (NP & Reserve)		
	Djibouti	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dikhil, Es Ela, Yoboki, Balho, Dorra, Mouloud		
Cluster N°5	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Gemi, Gidani, Tulu Welel, Dembi Dolo, Gambela NP, Jokau, Tor, Gog, Itang		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Daga Post, Kigille, Nasir, Pachala, Pibor Post, Towot, Akubu		
Cluster N°6	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Almahel, Bambudi, Guba, Kurmuk, Asosa, Bamesi, Belfodiyo		
	S/Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Kungila, Chidu		
	Sudan	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u>		

		Mortesorro, Shali al-Fil, Kurmuk, Kayli, Aguru, Bigori, Bobuk, Kambal, Quysan, ar-Rusayris, Damazine		
Cluster N°7	Eritrea	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Dukambiya, Barentu, Biyagundi, Taseeny		
	Sudan	<u>Areas selected by feasibility study:</u> - Kassala State (Toglay IDPs, Hamasayeib) - Gadarif State (Shuwak, Fashaga Locality; Maryoud, East Gallabat Locality ; Saraf Saeed, Basunda Locality ; Allam, Basunda Locality ; Gurreisha, Gurreisha Locality ; Shuaib, Gurreisha Locality ; Umsawani, Gurreisha Locality) <u>Other potential areas/districts/counties:</u> Dindar NP, Basunda, Galegu, Rumeila, Doka, al-Qadarif, Tomat, Khashm al-Quirba		
	Ethiopia	<u>Areas selected by study:</u> - Nil <u>Potential areas/districts/counties:</u> Badime, Shiraro, Adi Ramets, K'eftya, Nogara, Himora, Gedabiet, Metema, El Gulut		
Cluster N°8 [Ethio-Somali cluster]	Ethiopia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ferber, El Abrêd, Mustahil, El K'oran, K'elafo		
	Somalia	<u>Areas selected by feasibility study:</u> - Nil <u>Potential areas/districts/counties:</u> Ceel Dheere, Beledweyne, Bogoosaar, Jiiqley		
TOTAL COST				0.8M

ANNEX 6: DETERMINATION OF COMPONENT 3 ACTIVITIES

A. LESSONS LEARNT			
Recommending statements	Potential activity	Component	Source / reference
The involvement of climate users in the co-production of climate services builds trust and increases ownership among users of climate services. It also improves climate services through the engagement of feedback from the users	<ul style="list-style-type: none"> Support the development of hydro-climatic products and information in a format that is accessible to decision-makers and users Support climate and weather user and stakeholder interaction Support the development of agro-climatic seasonal forecast services that link meteorological agencies with farmers through climate smart villages (CSV) 	3.1 3.1	Partner Project : Agricultural Climate Resilience Enhancement Initiative (ACREI)
To improve the uptake of livestock insurance, more effort should be made to address financial illiteracy and other cultural considerations.	<ul style="list-style-type: none"> Support development of financial literacy packages targeting potential livestock insurance beneficiaries Support development of livestock and crops index-based insurance data for use by small holder farmers and pastoralists through mobile technologies Promote regional and local climate insurance products in association with social safety nets to mitigate financial, agricultural, and health risks (includes mapping climate insurance needs and evaluation of ongoing livestock and crop insurance programs to inform future insurance programs designed for resilience building) 	3.1 3.2 3.2	Partner Project [Building Opportunities for Resilience in the Horn of Africa [Kenya Ethiopia-Somalia] : BORESHA
Gender and sex disaggregated data is hardly available yet essential for identifying gender inequalities in resilience programming. There is need for investing in capacity to generate and use disaggregated data.	<ul style="list-style-type: none"> Develop a regional common pro-poor, gender and sex-oriented (men, women, boys and girls) climate framework for resilience activities 	3.3	IGAD Regional Gender Management Project
A data sharing Protocol is necessary to enable IGAD Member States to effectively collect, share and utilize regional data	<ul style="list-style-type: none"> Develop and support a study for the conception of a regional data-sharing Protocol for the IGAD countries Strengthen institutional capacities, and institute platforms for sharing and delivery of climate services 	3.3	IDDRSI Regional Knowledge Management Project
The outbreak of the COVID-19 Pandemic has been challenging to physical contact and travel to project sites by staff	<ul style="list-style-type: none"> Support IGAD's capacity to negotiate COVID – 19 inputs for countries of the region within the framework of the smooth implementation of DRSLP – 2 	3.2	DRSLP : Ethiopia

To ensure sustainability of project outcomes and impacts, community ownership, capacity building, and public-private partnerships (PPP) frameworks should be encouraged and supported.	<ul style="list-style-type: none"> Promote PPP business models for the production of hydro-climatic information services Strengthen PPPs (through information forums) to ensure their effective engagement in crop and livestock insurance schemes 	3.1 3.2	DRSLP – 1 Somalia
Lack of baseline data, inadequate monitoring & evaluation measures, & absence of proper consultation with beneficiaries erodes project sustainability / ownership and makes project results difficult to account for	<ul style="list-style-type: none"> Set-up and support for the operation of a regional observatory on climate, transhumance and mobility to generate and disseminate early warning information on shocks and risks in relation to conflicts 	3.3	DRSLP – 1 Somalia
B. ICPAC CHALLENGES (GUIDE FOR ENGAGEMENT)			
Recommending statements	Potential activity	Component	Source / reference
End users lack the capacity to express their demand for products that would benefit them, and to which they have little or no exposure	<ul style="list-style-type: none"> Support NMHSs to engage users in order to improve the way they generate and communicate forecasts. Provide support to ICPAC to speed up and influence change among NMHSs 	3.1	Percy F., Wakini, J., Baraibar, M., & Maureen Anyango, M. (2021) : ICPAC Guide for Engagement In Co-Producing Climate Services
Climate forecasters / service producers (NMHSs, RCOFs) lack the capacity or flexibility to significantly change their services to align with users' needs.	<ul style="list-style-type: none"> Support NHMS through ICPAC in the implementation of national climate services Strengthen regional climate monitoring and reporting systems and climate Risk Mapping capability for the IGAD region Support Climate and Weather Observation Networks and Infrastructure and Data Processing for Enhanced provision of HYDROMET Services. Develop Appropriate HYDROMET data and model applications, products and services and Dissemination to meet the needs of RMCs and Region 	3.1 3.1 3.1 3.1	Percy F., Wakini, J., Baraibar, M., Anyango, M. (2021) : ICPAC Guide for Engagement In Co-Producing Climate Services
Improve early response to early warning information	<ul style="list-style-type: none"> Promote use of RS data products as spatial applications to drought risk monitoring and early warning towards disaster risk reduction in the Horn of Africa region 	3.1	IGAD Secretariat (2019). IDDRSI Strategy, 2019 – 2024
C. IDDRSI STRATEGY (RPP and CPPs)			
Recommending statements	Potential activity	Component	Source / reference
Reduce vulnerability to disaster risk in drought-prone communities in the context of regional contingency planning	<ul style="list-style-type: none"> Promote access to risk-management tools (including livestock and crops index-based insurance) by small holder farmers/ pastoralists 	3.2	IGAD Secretariat (2019). IDDRSI Strategy, 2019 – 2024

Produce hazard, risk & vulnerability maps & related outputs within the framework of regional hazard and risk mapping	<ul style="list-style-type: none"> ▪ Generate hydro climatic data at high resolution and improved access to CCR products and services ▪ Establishment of a standards certification body for quality index insurance at the regional level ▪ Investment in data collection, validation infrastructure and standards at the regional level ▪ Mainstream disaster/climate risk management into regional plans, policies and strategies ▪ Support to operationalization of the East Africa Multi Hazards Watch System to serve as a regional platform for alerting against climate-related risks 	3.1 3.2 3.2 3.3 3.3	IGAD Secretariat (2019). IDDRSI Strategy, 2019 – 2024
IGAD needs to shift its mission from Norm-Setting to Norm-Implementation	<ul style="list-style-type: none"> ▪ Develop regional policy for payments of environmental services and guide policy implementation ▪ Support the operationalization of IGAD Food Security, Nutrition and Resilience Analysis Hub (IFRAH) 	3.3 3.3	IGAD Secretariat (2017). IGAD Regional Strategy
IDDRSI will also strengthen IGAD in the implementation of the UNCCD, in particular towards the 10 Year UNCCD Strategy, the Sendai Framework for Disaster Risk Reduction 2015-2030. In addition, it will enhance IGAD's capacity in the implementation of the other two Rio Conventions, namely the UNFCCC and UNCBD.	<ul style="list-style-type: none"> ▪ Support a regional communication strategy for hydro-climatic information building on IGAD Climate Strategy ▪ Support development and dissemination of the five- year scientific reports on the state of climate in the Horn of Africa (IPCC Horn of Africa) ▪ Support and popularize operationalization of NDCs in the HoA countries ▪ Facilitate Regional Dialogue for coherence of NDC National measures ▪ Develop NDC implementation action plans building on country commitments to implementation of the Paris Agreement ▪ Undertake feasibility studies for identified pipeline of investments will promote more coordinated action in HoA for mutually desired results. ▪ Support and popularize operationalization of LDN initiatives in the HoA countries 	3.1 3.1 3.3 3.3 3.3 3.3	IGAD Secretariat (2017). IGAD Regional Strategy (Policy guidance)

Build capacity of IGAD Secretariat and Specialized institutions in the use and application of Knowledge management tools (GIS, Di-Monitoring, 3WMap, IGADInfo, 4Mi) to support the implementation of the IDDRSI initiative	<ul style="list-style-type: none"> Support to relevant national / regional services in knowledge management Develop mapping of resilience actions in the IGAD region Strengthening institution capacities, increase data sharing and collaboration, in delivering climate services. Support regional capacity to anticipate and timely respond to disaster risks Strengthen IGAD Regional resilience report and resilience measurement 	3.2 3.2 3.3 3.3 3.3	IGAD Secretariat (2017). IGAD Regional Strategy – Implementation Plan
Strengthen the team of IGAD Focal Points and IDDRSI Coordinators in Member States	<ul style="list-style-type: none"> Support the organization of annual climate investment forums in the Horn of Africa Support the IDDRSI Regional Platform Coordination Unit in the monitoring of IDDRSI implementation at regional, national and sub-national levels 	3.3 3.3	IGAD. (2016). IGAD Regional Strategy and Implementation Plan
Conduct regional learning events assembling resilience partners to share best practices and lessons; Organize regional and national policy dialogue forums and seminars	<ul style="list-style-type: none"> Organize annual scientific forums on climate in the IGAD region Develop digitalized platforms for good practices/ technologies Support implementation and operation of an optimum network for observing and collecting hydro climatic data in the region, building on IGAD HYCOS 	3.2 3.2 3.1	IGAD. (2016). IGAD Regional Strategy and Implementation Plan
Develop Unified Knowledge Management System (UKMS) and Strategy	<ul style="list-style-type: none"> Expand approaches and ecosystem functions to engage in payment for environmental services 	3.3	IGAD. (2016). IGAD Regional Strategy and Implementation Plan
Use workshops to support technical and organizational capacities of Member States to lead, coordinate/ manage post-drought resilience processes through pre-emptive resilience-building planning for the short and long-term	<ul style="list-style-type: none"> Develop Knowledge products on resilience (Climate Projections Atlas, Climate Change Newsletters, related policy briefs and fact sheets) 	3.3	IGAD. (2016). IGAD Regional Strategy and Implementation Plan
Conduct high level events, policy and advocacy work on disaster resilience and climate change, in the context of SDG and AU agenda 2063	<ul style="list-style-type: none"> Support development of relevant regional livestock and crop insurance policies spear-headed by ICPALD and the Agriculture and Environment Division (AED) of IGAD in partnership with African Risk Capacity (ARC) of the African Union 	3.2	IGAD. (2016). IGAD Regional Strategy and Implementation Plan
Support of MS through capacity development and training programs on	<ul style="list-style-type: none"> Strengthen institutional capacities to improve data 	3.2	IGAD. (2016). IGAD Regional Strategy and Implementation Plan

resilience; building on exchange of experience, and expertise using sharing and learning modes and through resilience information/data sharing for more effective approach	sharing, and platforms for the delivery of climate services		
The CPP should promote greater links to IGAD Climate Prediction and Applications Centre (ICPAC) to build national meteorological capacity.	<ul style="list-style-type: none"> Train NMHS focal points in the use of ICPAC's prediction outputs and ensure their access to the results of user-engaged modeling centers 	3.1	CPP, South Sudan (2019 – 2024)
The Committee further calls upon the IGAD Secretariat and Member States to promote investments in the ASALs and cross-border clusters, including in sustainable land and water management as well as supporting engagement of the private sector in the development of ASALs infrastructure, in order to realize sustainable development and equitable regional integration	<ul style="list-style-type: none"> Strengthen climate risk management in selected shared surface and ground water aquifers Undertake mapping of surface and groundwater and assess their potential for agricultural development using remote sensing Develop reports on water accounting, water resource maps and integrate using improved IWRM tools Strengthen dialogue and technical capacity to establish cross basin authorities in at least 3 selected shared river basins and 2 shared aquifers 	3.3 3.3 3.3 3.3	IDDRSI Platform Steering Committee Meeting of July 2020
D. AFDB DIRECTIVES OF APPRAISAL MISSIONS			
Recommending statements	Potential activity	Component	Source / reference
It is also worth noting that IGAD will coordinate the activities of DRSLP II in all countries and as such it will be able to transmit lessons learned from DRSLP I to DRSLP II's new entrant participating countries.	<ul style="list-style-type: none"> Facilitate regional dialogue for coherence of NDC national measures Support the development of NDC implementation action plans building on country commitments towards implementation of the Paris Agreement 	3.3 3.3	AfDB, (2014). DRSLP-1 Appraisal report
The project will capitalize and promote private sector involvement in all the participating countries, encouraging private investors under PPP arrangements in order to leverage the limited public resources.	<ul style="list-style-type: none"> Facilitate regional dialogue for coherence of LDN national measures Support development of LDN action plans building on country commitments towards implementation of the Global Mechanism of the UNCCD Support for the establishment of regional climate fund for the GHA region. (IGAD) and building capacity of ICPAC regarding accreditation to Green Climate Fund, mobilizing and management of climate change funds 	3.3 3.3 3.3	AfDB, (2014). DRSLP-1 Appraisal report AfDB,
E. LESSONS FROM NATIONAL DRSLP – 1 PROJECTS AND REGIONAL PARTNER PROJECTS			
Recommending statements	Potential activity	Component	Source / reference

Sustainability strategies should be introduced at the identification stage of project evaluations. For infrastructure projects, this means agreeing on a management strategy and funding for maintenance.	<ul style="list-style-type: none"> Support the establishment of regional climate fund for the IGAD region 	3.3	DRSLP – 1: Djibouti
Strengthen adaptive capacity to climate-related hazards and natural disasters in the regional context	<ul style="list-style-type: none"> Provide technical assistance for the strengthening and the establishment of digital services for parametric/index insurance for climate risks. Strengthen local and regional livestock value chains and national/regional markets for fodder and other livestock needs supply to sustain insurance uptake 	3.2 3.2	IGAD Secretariat (2019). IDDRSI Strategy, 2019 – 2024
There is need to establish a knowledge management system that captures and disseminates results and good practice, to facilitate cross-border coordination and cooperation and ensure functionality of the cluster coordination efforts			Partner Project [Support for Effective Cooperation & Coordination of Cross-border Initiatives in Southwest Ethiopia-Northwest Kenya, Marsabit-Borana and Dawa, and Kenya-Somalia-Ethiopia : (SECCCI)]
The need for investment in local radio programs for communication & feedback on climate information in local languages is key for success			Agricultural Climate Resilience Enhancement Initiative (ACREI) [Kenya, Uganda & Ethiopia]
There is need to promote existing MoUs, review policies and protocols that affect cross-border investment as well as improve capacities at cluster level on the use of climate information for decision making while improving use of rangeland resources and monitoring			Partner Project: [Support for Effective Cooperation & Coordination of Cross-border Initiatives in Southwest Ethiopia-Northwest Kenya, Marsabit-Borana and Dawa, and Kenya-Somalia-Ethiopia Project]SECCCI
The need for investment in local radio programs for communication and feedback on climate information in local languages is pertinent for success			Partner Project : Agricultural Climate Resilience Enhance-ment Initiative (ACREI) [Kenya, Uganda & Ethiopia]
There is a need to promote the existing MoUs, review policies and protocols that affect cross-border investment as well as improve capacities at cluster level on the use of climate information for decision making while improving the rangeland resources use and monitoring			Partner Project: [Support for Effective Cooperation & Coordination of Cross-border Initiatives in Southwest Ethiopia-Northwest Kenya, Marsabit-Borana and Dawa, and Kenya-Somalia-Ethiopia] SECCCI

Encouraging closer partnerships and more collaborative initiatives with private sector to promote drought resilience			IGAD. (2016). IGAD Regional Strategy and Implementation Plan
Enhance partnerships with stakeholders active in Resilience to promote and advance IDDRSI			IGAD. (2016). IGAD Regional Strategy and Implementation Plan
Urge the IGAD Secretariat to lead efforts to mobilize support to operationalize and sustain the IGAD Cross-border Development Facilitation Unit at Moroto; as well as establish similar units in other cross-border areas to bolster and consolidate its role and mandate in resilience building and development endeavors for cross-border areas			7 th IDDRSI Platform General Assembly Meeting of March 2021
Effective promotion of gender equality & women's empowerment in the context of resilience planning in IGAD countries requires visible and active involvement of national ministries/agencies responsible for gender/ women's affairs.			IGAD Regional Gender Management Project
Emphasis should be placed on securing cross-border passes for implementing staff and beneficiaries in order to cross boundaries smoothly			Partner Project [Building Opportunities for Resilience in the Horn of Africa [Kenya Ethiopia-Somalia] : BORESHA
IGAD should popularize the contents of the transhumance protocol and roadmap to regulatory authorities as well as cross-border communities			ICPALD (2021). Cross-border Pastoralist Migration Workshop/Platform in Karamoja Cluster: 3 March 2021