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SCALING UP CLIMATE AMBITION ON LAND USE AND AGRICULTURE THROUGH NDCS AND NAPS (SCALA)

Inception Report | ETHIOPIA

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ABBREVIATIONS AND ACRONYMS

AFLOU	Agriculture, Forestry and Other Land Use
AGP	Agriculture Growth Programme
BAU	Business-as-Usual
BMUV	The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection
CALM-PforR	Climate Action for Landscape Management-Program for Results
CCAMEP	Climate Change Adaptation and Mitigation Enhancing Project
CRGE	Climate Resilient and Green Economy Strategy
CSA	Central Statistics Agency
DRDIP	Development Response to Displaced Impacts Project
DRSLP	Drought Resilience Sustainable Livelihood Project
EFCCC	Environment, Forest, and Climate Change Commission
EPACC	Ethiopia Program of Adaptation on Climate Change
ETH-NAP	Ethiopia's National Adaptation Plan
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GGGI	Global Green Growth Institution
GHG	Greenhouse Gas
GTP	Growth and Transformation Plan
Ha	Hectares
IKI	International Climate Initiative
INDC	Intended Nationally Determined Contribution
LFSDP	Livestock and Fishery Sector Development Project
LUCF	Land Use Change and Forestry
MDG	Millennium Development Goal



MoA	Ministry of Agriculture
NAMA	Nationally Appropriate Mitigation Actions
NAPA	National Adaptation Plan of Action
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
PASIDP	Participatory Small Scale Irrigation Development Programme
PSNP	Productive Safety-net Programme
PSNP-CSMP	Productive Safety-net Programme-Climate Smart Mainstreaming Programme
REDD	Reducing Emissions from Deforestation and Forest Degradation
RPLRP	Regional Pastoral Livelihood Resilience Project
SCALA	Scaling up Climate Ambition on Land Use and Agriculture
SLMP	Sustainable Land Management Programme
SDR	Strengthening Drought Resilience
WFS	World Food Summit
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

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EXECUTIVE SUMMARY

Ethiopia emits 0.04 percent of global greenhouse gases (GHGs), yet the country is highly vulnerable to the impacts of climate change, which have grave implications for the achievement of development goals. This is due to its high dependence on rain-fed agriculture and natural resources, as well as its relatively low adaptive capacity to deal with climate impacts. According to 2019, Ethiopia's Climate Resilient Green Economy (CRGE) implementations progress assessment report has indicated that agriculture, water and human health will be the most vulnerable sectors, with variations across regions based on socioeconomic and environmental conditions, among other factors. Increased occurrences of drought conditions and reduced rainfall across much of the country will further negatively impact agriculture, livestock, food security, and human health.

In response, the Government of Ethiopia officially launched the Climate-Resilient Green Economy (CRGE) initiative in 2011 to avoid such negative effects and help the country achieve a middle-income status that is resilient to the impacts of climate change. The CRGE strategy provides an overarching framework for Ethiopia's response to climate change. In line with the CRGE strategy, Ethiopia updated its Nationally Determined Contribution (NDC) and developed a National Adaptation Plan (NAP), which both provide further details on the country's strategies for mitigation and adapting to climate change. The NAP and NDC have identified 18 and 40 priority adaptation options respectively for implementation at all levels and across different development sectors, recognizing the considerable diversity in context and vulnerability across regions and social groups. The objectives are to reduce vulnerability to the impacts of climate change through building adaptive capacity and resilience. Therefore, the implementations of these priority adaptation options are expected to be guided by the principles of participation, coherent interventions, stakeholder engagement, gender sensitivity, equitable implementation and partnerships. Ethiopia's CRGE strategy as well as agriculture and forestry sector climate resilient strategy have identified three specific focuses areas to achieve mitigation goals in the AFOLU sectors: i) Enhance lower-emitting techniques and activities that can improve soil nutrient and productivity of existing farm lands (best agronomic practices, organic fertilizer, intercropping, conservation agriculture, integrated watershed management and agro-forestry practices etc.); ii) Promote yield-increasing techniques and irrigation to reduce agricultural land expansions into forest and other protected areas; and iii) Improve protecting, rehabilitating and reestablishing of forest resources for increasing their economic and ecosystem services as well as GHG sequestration. Consequently, climate change adaptation and mitigation options prioritized in the NDC, and NAP need to be mainstreamed in development planning, projects and programs.

Based on Ethiopia's development policy framework, CRGE strategy objectives and in line with NAP and NDC priority options, as well as the agriculture sector climate resilience strategy and plans; SCALA Ethiopia has been designed in collaboration with the Ministry of Agriculture (MoA), Environment, Forest, and Climate Change Commission (EFCCC), United Nations Development Programme (UNDP) and Food and Agriculture Organization of the United Nations (FAO). It will support the ongoing efforts to address climate change impacts in agriculture and land use sectors. The programme aims to support transformative climate actions in the land use and agriculture to reduce GHG emissions and enhance removals, as well as strengthen resilience and adaptive capacity to climate change impacts in Ethiopia. Its specific objective is to support the country to translate its NDC, NAP and climate resilience strategy priority options into actionable and transformative climate solutions in land-use and agriculture with multi-stakeholder engagement, particularly through strong collaboration between the public and private sectors.

To translate NDC, NAP and CRGE strategy priority options into action, three transformative climate actions that contribute to the national climate change adaptation and mitigation efforts in agriculture and land use sectors as well as SCALA programme's objective have been identified. The overall identification process was conducted through participatory technical reviewing of NDC, NAP, agriculture and forestry sector climate resilient strategy and other climate change adaptation and mitigation related policies, strategies and plans in land-use and agriculture sectors; and validated in multi-stakeholder inception workshop and prioritized for implementation. These are:

- i) Enhance integrated watershed management;
- ii) Enhance irrigation performance; and
- iii) Improve rangeland and pastureland management integrated with small ruminants.



Scaling up climate ambition on land use and agriculture through NDC and NAPs (SCALA)

This will be achieved through an integrated landscape/watershed management system, which will improve ecosystem services, availability of water and livestock feed; that contributes to enhanced irrigation performance, as well as improving rangeland and pasture management will lead to efficient small ruminants' production systems. Moreover, the actions enable strengthened preparedness and response to key existing and projected climate hazards by improving the adaptive capacity of watersheds to be more resilient to natural resource degradation, drought and floods. Also, such improvements in natural resource use and livestock management could enhance carbon sinks in the plant biomass and soils and reduce emission intensity from enteric fermentation.

Finally, the identified transformative priority climate actions and work plan were validated and endorsed with minor comments and suggestions by the inception workshop participants. Implementation of the programme's work plan will be technically supported by the country and global SCALA teams, and guided by the National steering committee, which will be comprised of national and international development partners, civic society organizations and public and private sectors.



1. INTRODUCTION

1.1 PURPOSE OF THIS REPORT

The purpose of this report is to present a summary on the inception activities of the SCALA programme in Ethiopia. The report gives summarized information on the overall participatory technical review and multi-stakeholder validation processes followed to identify NDCs and NAPs priority options with transformative potential in land-use and agriculture. It also briefly presents the identified transformative climate actions that contribute to Ethiopia's climate change adaptation and mitigation efforts in agriculture and land use as well as to the SCALA's objective. Based on the context of NDC and NAP adaptation priority options three adaptation options were identified as transformative climate actions for the SCALA programme to support: **i) enhance integrated watershed management, ii) enhance irrigation performance, and iii) improve rangeland and pastureland management integrated with small ruminants**. Therefore, those options are expected to be implemented through integrated natural resources management and related activities in landscape system that will improve availability of water and livestock feed which contributes to promote irrigation and small ruminants' production.

1.2 OVERVIEW OF THE GLOBAL PROGRAMME

The Support Programme on Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs (SCALA) is a multi-year initiative funded by Germany's Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety and Consumer Protection (BMUV) through its International Climate Initiative (IKI). The programme is designed to support transformative climate action in the land use and agriculture sectors to reduce GHG emissions and/or enhance removals, as well as strengthen resilience and adaptive capacity to climate change in participant countries. Its specific objective is for **countries to have translated their NDC and/or NAPs into actionable and transformative climate solutions in land-use and agriculture with multi-stakeholder engagement**. It emphasizes collaboration between the public and private sectors to drive implementation. This will be achieved through three outcomes:

- ⇒ **Outcome 1:** Information and assessments used by national stakeholders to identify and appraise transformative climate actions to advance NDC/NAP priorities in land-use and agriculture.
- ⇒ **Outcome 2:** Climate risk-informed land-use and agriculture sector priorities integrated into national and sectoral planning, budgeting and monitoring.
- ⇒ **Outcome 3:** Private sector engagement in climate action in land-use and agriculture increased.

SCALA supports **12 countries in Africa, Asia, and Latin America** (Argentina, Cambodia, Colombia, Costa Rica, Cote d'Ivoire, Egypt, Ethiopia, Mongolia, Nepal, Senegal, Thailand, and Uganda). It works directly with key government stakeholders (i.e., Ministries of Agriculture, Environment, Finance and Planning and Climate Change Coordination bodies) as well as representatives of civil society organizations, private sector, research, and academia. To reach a wider selection of countries, it also promotes sharing knowledge and lessons learned through a technical facility set up under the programme focused on private sector engagement and public-private collaboration.

SCALA is implemented through a joint effort between the Food and Agriculture Organization (FAO) and the United Nations Development Programme (UNDP), building on lessons learned from the IKI-funded Integrating Agriculture in National Adaptation Plans (NAP-Ag) Programme. SCALA taps into the technical knowledge and experience of both agencies, working through the respective Regional Offices, Regional Centers of Expertise and Country Offices in support of country programming frameworks. Both agencies have substantial global, regional and national initiatives which are leveraged for knowledge exchange and complementary activities.



1.3 INCEPTION PHASE

At the beginning of the inception phase of the programme, a **baseline survey**, **theory of transformative systems change**, and **climate action review matrix** were developed and shared by the UNDP and FAO global team to guide and facilitate the assessment process of climate actions entailed in country NDCs/NAPs. In addition to Ethiopia's NDC and NAP, other climate adaptation and mitigation related policies, strategies, plans and assessment reports available in the land-use and agriculture sectors were then identified: i) Revised Community Based Participatory Watershed Development Guideline Including Climate Smart Soil and Water Management, ii) Revised Agriculture Sector Development Policy, iii) National Climate Smart Roadmap, iv) Climate Smart Agriculture Scoping Study to Identify Climate Change Adaptation and Mitigation Actions, v) Gender Analysis to Guide Mainstreaming Gender in NDC Implementation, vi) Development of National and Regional Forest Sector Development Plans, vii) CRGE strategy, viii) NAP and updated NDC. In parallel, survey questionnaires were developed and nine relevant technical informants to be interviewed were identified from Environment, Forest, and Climate Change Commission (EFCCC) and Ministry of agriculture (MoA) by the SCALA team to support the participatory review of the NDC/NAP adaptation and mitigation options. Subsequently, the identified climate adaptation and mitigation related plans, strategies and frameworks were reviewed, a questionnaire-based survey disseminated, and a series of discussions were conducted with relevant experts from the EFCCC and MoA.

A step-by-step review process using the climate action review matrix was carried out. This allowed analysis and prioritization of transformative adaptation and mitigation actions in the land-use and agriculture sectors by comparing each action against a set of criteria spanning seven key themes, namely: systems-thinking, climate rationale, social inclusion and gender equality, whole-of-government, sustainable development, private-sector engagement and innovation. In the 1st step the three priority climate actions were identified. Followed by climate rationale assessment; and landscape and value chain systems approach identifications; and potential to bring returns and engaging private sector investments assessment of each priority actions conducted. Similarly, capacities to benefit vulnerable communities, address equality and social inclusion, as well as contributions for sustainable development of actions were analyzed. Finally, their contributions to integrated institutional approach and strengthening of the enabling environment for innovation, finance and capacity building to addressing climate change were properly assessed and scored. From the NAP and NDC frameworks, the following climate actions were identified and prioritized for implementation: enhancing integrated watershed management, enhancing irrigation performance, and improving rangeland and pastureland management integrated with small ruminants. Finally, based on the transformative adaptation and mitigation priority actions identified by applying the climate action review matrix, a theory of transformative change was developed, and the work plan refined and finalized. These were validated with minor changes at the inception workshop. Figure one below shows a selection of stakeholders that physically participated in the inception workshop.

FIGURE 1: SCALA INCEPTION WORKSHOP PARTICIPANT'S PHOTO





2. CONTEXT

2.1 COUNTRY PROFILE

Ethiopia has registered a measured progress in socio-economy and infrastructure, notably GDP has been growing at 10 percent on average, and poverty has declined from 45.5 percent in 1995/96 to 23.5 percent in 2015/16 (Getachew Diriba, 2019). Agriculture contributes 34.1 percent to the GDP, employs some 79 percent of the population, accounts for 79 percent of foreign earnings, and it is the major sources of raw material and capital for investment and market. The share of construction and services sector from the total GDP reached as high as 21.1 percent and 39.5 percent respectively, in 2020.

The share of the population living below the national poverty line decreased from 30 percent in 2011 to 24 percent in 2016 and human development indicators improved over time (The World Bank in Ethiopia). Ethiopia is still the fastest growing economy in the region, with 6.1 percent GDP growth in 2020. The government has launched a new 10-Year Development Plan, based on the 2019 Home-Grown Economic Reform Agenda, which will run from 2021 to 2030. The plan aims to sustain the remarkable growth achieved under the Growth and Transformation Plans of the previous decade, while facilitating the shift towards a more private-sector-driven economy (Ethiopia Economic Outlook).

The agriculture sector remains a dominant sector in Ethiopia, contributing to approximately 34.6 percent of gross domestic product (GDP), 80 percent of exports and 79 percent of the economically active population is employed in the sector (Getachew D., 2019). Agricultural area occupies around 35 percent of total land area. There are approximately 17.5 million agricultural land holders in the country, occupying 18 million hectares of land. Women represent only 19 percent of total agricultural land holders. Most farm holders are smallholder (with farm sizes between 0.5 and 2 hectares) and they produce the large majority (about 95 percent) of the gross agricultural outputs in the country (CSA, 2016).

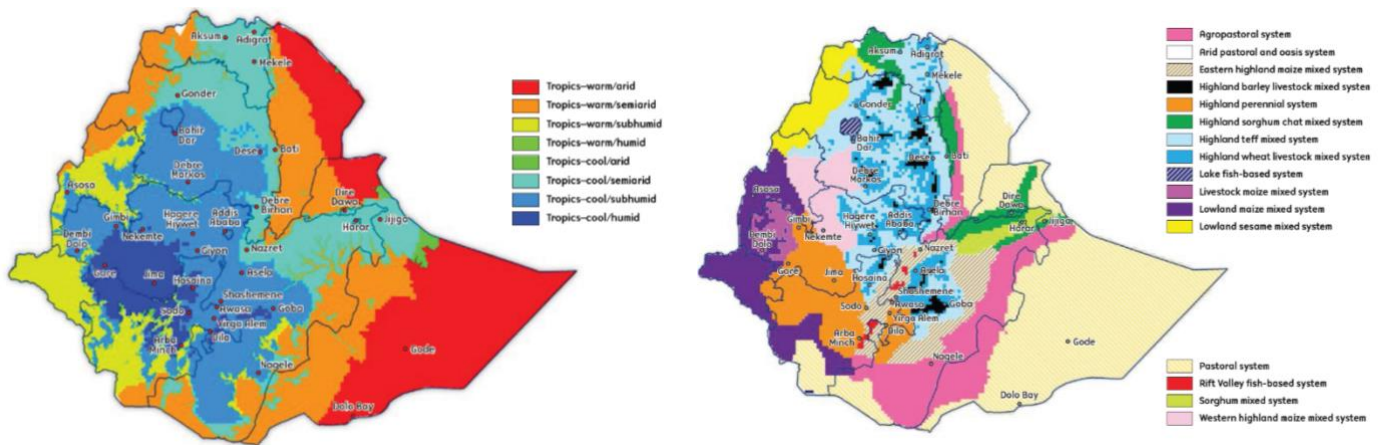
The small plot sizes in the country are often insufficient to enable food security and adequate income to invest in improved farming methods (Yirgu L., 2013). Large, commercial farms (over 10 ha) are not widespread; extending over 1.2 percent of the total agricultural land area and contributing less than 5 percent of gross agricultural output (FAO, 2016). Because of its 18 major and 32 sub-agro-ecological zones, diversified topography and natural vegetation, Ethiopian smallholder farmers have developed complex farming methods and cropping patterns. Farming is practiced under five major farming systems: i) highland mixed farming, ii) lowland mixed agriculture, iii) pastoral systems, iv) shifting cultivation and, v) commercial agriculture (Degefe and Nega 2000).

Agricultural expansion has been carried out from 10 million hectares in 2005 to 12.4 million hectares in 2015 at the expense of natural resources availability and quality. In the highlands, where most Ethiopians live, over 40 percent of the land area is said to be undergoing some form of soil erosion, causing topsoil losses of over 1,493 million t/year (Molla T. & Sisheber B., 2017), and in the lowlands unsustainable open grazing practices have also led to pasture degradation. To minimize the existing natural resource degradation in the highland and lowland areas about 24 million hectares of land rehabilitated and managed through integrated watershed management that result in improved water and feed availability that results in increased land under irrigation to 1,308,211 hectares of land by 2020.

Therefore, Ethiopia was one of 12 African countries that had achieved the Millennium Development Goal (MDG) 1C target of halving the proportion of undernourished between 1990/92 and 2015, as well as making some progress to achieving the World Food Summit (WFS) target of halving the total number of chronically undernourished (FAO. 2015b). From a nutrition quality perspective, the diets of rural households are composed mainly of energy-rich foods of cereals and tubers and very limited nutritious food elements. Despite a large livestock population, consumption of livestock products is low in rural areas, except for the pastoral areas, where milk is a major component of the diet (FAO Nutrition Country Profile for Ethiopia).



FIGURE 2: AGRO-ECOLOGICAL ZONES AND FARMING SYSTEMS OF ETHIOPIA



The boundaries and names shown and the designations used on these map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries

(Source: Sebastian, 2009)

2.2 CLIMATE CHANGE IMPACTS, RISKS AND VULNERABILITIES

Ethiopia has almost negligible contributions to global greenhouse gas (GHG) emissions, currently estimated at 0.04 percent of global emissions (European Commission, 2019). Ethiopia is highly vulnerable to the impacts of climate change. This is due to Ethiopia's high dependence on rain-fed agriculture and natural resources, and predominantly smallholder subsistence farmers with relatively low adaptive capacity to invest in adaptive capacities and technologies to address adverse climate impacts. There is compelling evidence of climate change in Ethiopia over the last 50 years.

At the national level, temperatures have increased by an average of around 1°C since the 1960s. Rainfall nationally is subject to high variability between years, seasons, and regions. The increasing trend of extreme weather events especially drought-induced disaster, associated with other hazards, is reflected in the increasing number of people needing food assistance in Ethiopia. Between 1990 and 2010, on average, each year 6.3 million people required food assistance amounting to over 654,000 tons annually. These numbers has now increased to more than 10 million during the past 10 years (CSA Roadmap, 2020).

The impacts of climate change are already experienced in Ethiopia's water, agriculture, infrastructure, forestry, and public health sectors. Water scarcity and drought conditions are expected to increase risks of food insecurity and may exacerbate conflict situations over scarce natural resources and population movements for searching of natural pasture and water resources, which is a common practice in pastoral and agro-pastoral areas. In the lowlands, soil and grassland degradation, as well as recurrent droughts, erratic rainfall, floods, and spread of invasive vegetation are destroying rangelands threatening pasture availability for animal feed and these are already threatening the sustainability of pastoral communities (MoARD, 2010; World Bank, 2010b).

These challenges may increase with projected climate change and variability. Changes in the seasonality, timing, and distribution of rainfall during the crop growing period, along with higher evapotranspiration rates and frequency of extreme weather events (e.g., floods and drought), may increase the frequency and distribution of crop pests and diseases. The increased frequency and distribution of crop pests will result in reduced crop yields. Heavy rains, flooding, and soil erosion puts both urban and rural infrastructure at risk, particularly for poor and vulnerable groups. Increased occurrences of drought conditions and reduced rainfall across much of the country will further impact on agriculture, livestock, food security, and human health.

Environmental degradation impacted water resources, and loss of biodiversity and ecosystem services constitute serious obstacles to the country's efforts in ensuring sustainable development and poverty reduction, increasing vulnerability to risks and hazards and increasing the importance for sustainable



adaptation and resilience measures (World Bank Group, Climate Risk Country Profile Ethiopia, 2020) to be adopted and implemented to reduce the adverse impacts of climate change.

At sectoral level, for the agriculture and forestry sector, floods and droughts have resulted in severe loss of agricultural crops and resulting in food insecurity. The economic impact depends on the extent of the extreme events, but droughts alone can reduce Ethiopia’s total GDP by 1 to 4 percent while soil erosion also reduce agricultural GDP by 2 to 3 percent (around 1 percent of total GDP) (Climate Resilience Strategy Agriculture and Forestry, 2015). Even excluding these major extremes, the sensitivity of agricultural output to weather variability means significant negative impacts.

A recent climate risk analysis for Ethiopia’s agriculture sector conducted by GIZ in 2020 indicates that both temperature and precipitation extremes are projected to increase, with the diverse regions and agro-ecologies of Ethiopia being affected differently (GIZ, 2020). These climate change impacts are being felt by all pastoral regions in Ethiopia which are highly prone to the adverse impacts of climate change, but the impacts are more prevalent in the North-eastern lowlands of Ethiopia (Solomon T., & Firew T., 2018).

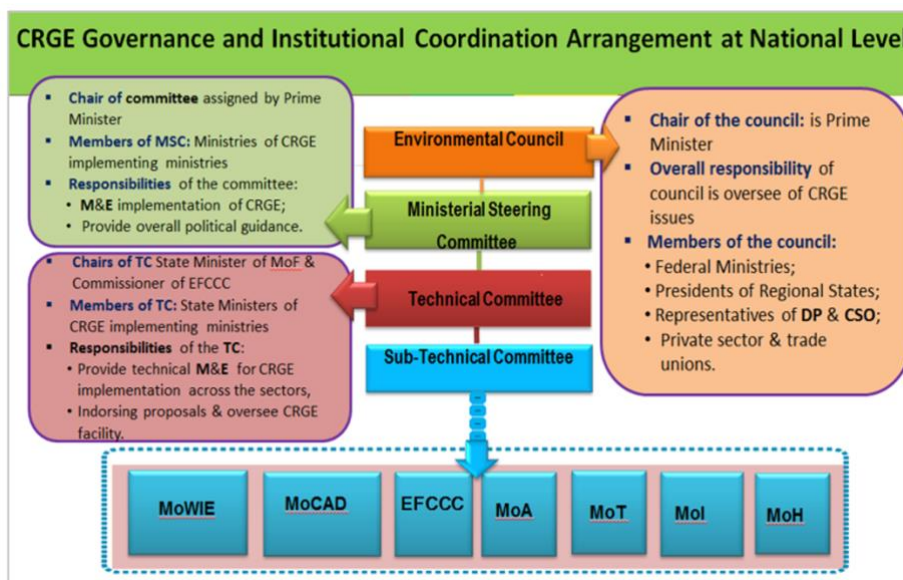
2.3 CLIMATE CHANGE PLANNING AND IMPLEMENTATION

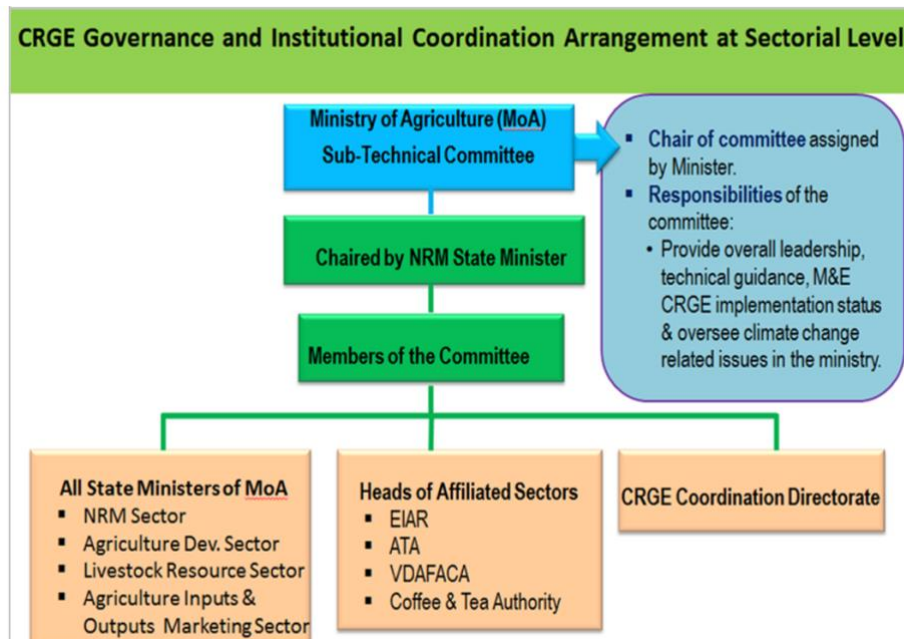
2.3.1 Institutional arrangements

There are five tiers of government in Ethiopia, each with different roles and responsibilities with regards to policy making and implementation: the federal government, the regions, zone administrations, woreda, and kebele- the lowest administration unit in Ethiopia. The federal government is responsible for the formulation and implementation of national policies, strategies and plans. The regions design socio-economic development plans that meet national-level targets and aligned with national plan (Overseas Development Institute, 2016). Therefore, Ministry of Agriculture and Environmental Protection Authority are the mandated entities/organizations for climate change adaptation and mitigation priority actions planning and implementation in the land use and agriculture sectors at the national level.

Similarly, Bureau of Agriculture, Bureau of Water and Energy and Regional Environmental Protection Authority and Regional Agricultural Research Institutes are the mandated entities/organizations for climate change adaptation and mitigation planning and implementation in the land use and agriculture sectors at the regional and local levels. To govern and coordinate CRGE priority adaptation and mitigation options implementations across the entities, a multi-sectoral coordination structure has been established at national and sectoral levels (see figure 3).

FIGURE 3: CRGE GOVERNANCE AND INSTITUTIONAL COORDINATION ARRANGEMENT AT NATIONAL AND SECTORAL LEVELS





2.3.2 Key policies and frameworks

Ethiopia's policy framework for climate change mitigation and adaptation has progressively evolved since the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. As part of the commitment, Ethiopia submitted its Intended Nationally Determined Contribution (INDC) in 2015 and turning in to NDC in 2017. Its policy framework for climate change mitigation and adaptation has undergone progressive development over the last decade. Ethiopia's Climate Resilient Green Economy Strategy (CRGE) developed in 2011 sets out a vision for Ethiopia becoming a lower-middle-income country by 2025 through implementing a transition to a green economy.

Launched in 2010, the Ethiopian Program of Adaptation to Climate Change (EPACC) calls for the mainstreaming of climate change into decision-making processes at a national level. It emphasizes planning, implementation, monitoring and assessing the impacts of climate change. It identified 20 climate change risks, mainly health risks (human and animal), agriculture production decline, land degradation, water shortages, biodiversity, waste management, displacement, and distributive justice. EPACC envisages that each sector at national, subnational and local community level in Ethiopia will have its own programme of adaptation. Accordingly, adaptation practices are indicated for each sector including crop production, livestock, water, health, energy, infrastructure, institutional capacity and cultural heritage.

The EPACC also identified institutions responsible for mitigating these risks. In 2015 Climate Resilient Strategy for Agriculture and Forestry was developed to provide tailored and sector-specific frameworks to build climate resilience and reduce the experienced impact of weather variability and future climate change. The agriculture and forestry sectors climate resilient strategy build on the CRGE strategy as well as sectoral policies. The strategy has identified 41 climate change adaptation and mitigation options and estimate the cost of responses. The CRGE priority options later mainstreamed into the second Growth and Transformation Plan (GTP II) of the national and regional development plans for the 2015-2020 period.

The country also launched the National Adaptation Plan of Action (NAPA) in 2007, and Nationally Appropriate Mitigation Actions (NAMA) in 2010, are further vehicles for adaptation and mitigation actions that aimed for enhancing adaptive capacity and reducing GHG emissions. Further, in the process evolved Ethiopia's National Adaptation Plan in 2017 (NAP-ETH) to provide an overarching framework for its response to the impacts of climate change by building adaptive capacity and resilience. Additionally, NAP-ETH Implementation Roadmap, developed in 2019, elaborates implementation strategies for the different adaptation options and strategic priorities identified in the plan. The objective of the roadmap is to identify key enabling actions that are pivotal



to actualizing Ethiopia's NAP within the set-out timelines. Besides, a Resource Mobilization Strategy for NAP-ETH was developed in June 2020 as part of implementation of the CRGE Strategy. Specific objectives of the Resource Mobilization strategy are to identify adaptation financing needs and gaps; explore financing options and set out next steps for the short- and medium-term development programs addressing the adverse effects of climate change.

Ethiopia submitted its Intended Nationally Determined Contribution (INDC) in 2015, ratified the Paris Agreement (PA) in March 2016, and turned its INDC into its Nationally Determined Contribution (NDC) in 2017. Ethiopia's 1st NDC aspires to reduce emissions from all sectors by 64 percent by 2030 from BAU scenario. The updated NDC from 2021 covers the period from 2020-2030. The Updated NDC comprises further policy interventions whose impact is proposed under the conditional pathway and decreases absolute emission levels to 125.8 Mt CO₂e such that the combined impact of unconditional and conditional contributions represent a reduction of 68.8 percent (-277.7 Mt CO₂e) in comparison with the revised BAU emission in 2030.

Meanwhile, the agriculture sector, particularly livestock, will remain as the main contributor to the GHG emission in the coming years followed by the Land Use Change and Forestry (LUCF) sector. Both sectors together represent 83 percent (LUCF 35 percent and livestock 48 percent) of total BAU emission in 2030. About 80 percent of the NDC's implementation is conditioned upon an ambitious multilateral agreement among parties enabling Ethiopia access to international support in the form of finance, capacity building and technology transfer. Overall, it identified 18 adaptation options of which 8 options are expected to be implemented by agriculture sector and 1 by forestry sector that implies 9 adaptation options are expected to be implemented by AFOLU sectors.

Based on the aforementioned development policies, frameworks, strategies, national and sectoral plans of Ethiopia, SCALA has been designed to support the ongoing efforts to address climate change impacts in agriculture and land use sectors. The programme mainly emphasizes implementation of transformative climate actions in the land use and agriculture to reduce GHG emissions and enhance removals, as well as strengthen resilience and adaptive capacity to climate change impacts in Ethiopia. Its specific objective is to support the country to translate its NDC, NAP and climate resilience strategy priority options into actionable and transformative climate solutions in land-use and agriculture with multi-stakeholder engagement, particularly through strong collaboration between the public and private sectors.

Table 1 List of key policies and frameworks

No	Key Policies and Frameworks	Year of Development	Online Links
1	National Adaptation Plan of Action (NAPA)	2007	https://unfccc.int/resource/docs/napa/eth01.pdf
2	Nationally Appropriate Mitigation Actions (NAMA)	2010	Not Available
3	Ethiopia Program of Adaptation on Climate Change (EPACC)	2010	https://climate-laws.org/geographies/ethiopia/policies/ethiopian-programme-of-adaptation-to-climate-change-epacc
4	Climate Resilient and Green Economy Strategy (CRGE)	2011	file:///C:/Users/MOA/Downloads/Ethiopia percent20CRGE percent20(1).pdf
5	Climate Resilient Strategy for Agriculture and Forestry	2015	http://gggi.org/site/assets/uploads/2017/11/2015-08-Sectoral-Climate-Resilience-Strategies-for-Ethiopia-1-Agriculture-and-Forestry-Climate-Resilience-Strategy.pdf
6	Intended Nationally Determined Contribution (INDC)	2015	https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ethiopia percent20First/INDC-Ethiopia-100615.pdf



7	Growth and Transformation Plan (GTPII)	2015-2020	https://www.greengrowthknowledge.org/national-documents/ethiopia-growth-and-transformation-plan-ii-gtp-ii
8	Ethiopia's National Adaptation Plan (NAP-ETH)	2017	https://www4.unfccc.int/sites/NAPC/Documents/Parties/Final%20Ethiopia-national-adaptation-plan%20percent281%29.pdf
9	The National Adaptation Plan (NAP) Implementation Roadmap	2019	https://napglobalnetwork.org/wp-content/uploads/2020/08/napgn-en-2020-Ethiopia-climate-resilient-green-economy-nap-roadmap.pdf
10	Resource Mobilisation Strategy for NAP-ETH	2020	Not Available
11	Nationally Determined Contribution (1st NDC)	2017	https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ethiopia%20First/INDC-Ethiopia-100615.pdf
12	Updated Nationally Determined Contribution (2nd NDC)	2021	https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ethiopia%20First/Ethiopia%20percent27s%20updated%20NDC%20JULY%202021%20Submission.pdf
13	10-year Development Plan	2021-2030	https://phe-ethiopia.org/the-tenth-year-perspective-plan-ethiopia2030-pass-way-to-prosperity/

2.3.3 Capacity needs for climate action in land use and agriculture

Proper implementation of climate actions identified in the land use and agriculture sectors requires appropriate support on institutional and technical capacity building at all levels. The capacity gaps identified in the CRGE capacity gap assessment, NDC and NAP as well as mentioned by the consulted stakeholders during the inception phase assessments include in the following:

- Strengthen MRV/M&E system and its institutional set up with adequate infrastructure and human resource for tracking the progress of climate adaptation and mitigation actions implementation;
- Limited resource mobilization capacity and private sector engagement in the implementation process of climate actions at all level;
- Integration of MRV/M&E with the national statistical data management system;
- Enhance accessibility and availability of data through the state-of-the art technology;
- Strengthen the coordination among national stakeholders and regional counterparts to ensure better implementation, monitoring and evaluation of actions.

2.4 RELEVANT PROJECTS AND PROGRAMMES

Almost all of the on-going projects and programmes within the MoA, as well as UNDP and FAO, aim to mainstream climate change adaptation and mitigation options that were identified in the NAPs, NDCs and Agriculture and Forestry sectors strategy as indicated below in Table 2.



Table 2 List of on-going projects and programmes complementary to SCALA

No	Projects and Programmes	Status	Focus Area	Implementing Institutions
1	Regional Pastoral Livelihood Resilience Project (RPLRP)	Ongoing	Livestock	MoA
2	Drought Resilience Sustainable Livelihood Project (DRSLP)	Ongoing	Livestock	MoA
3	Productive Safety-net Programme (PSNP)	Ongoing	NRM and Livelihood	MoA
4	Sustainable Land Management Programme (SLMP)	Ongoing	NRM	MoA
5	Agriculture Growth Programme (AGP-I and II)	Ongoing	Crop and Livestock	MoA
6	Development Response to Displaced Impacts Project (DRDIP)	Ongoing	NRM and Infrastructure	MoA
7	Livestock and Fishery Sector Development Project (LFSDP)	Ongoing	Livestock	MoA
8	Participatory Small- Scale Irrigation Development Programme (PASIDP)	Ongoing	Irrigation	MoA
9	Climate Change Adaptation and Mitigation Enhancing Project (CCAMEP)	Ongoing	Adaptation & Mitigation	MoA
10	Strengthening Drought Resilience in Low Land of Ethiopia (SDR)	Ongoing	Adaptation	MoA
11	Climate Action for Landscape Management-Program for Results (CALM-PforR)	Ongoing	NRM and Land use	MoA
12	Productive Safety-net Programme-Climate Smart Mainstreaming Programme (PSNP-CSMP)	Ongoing	Climate Smart Mainstreaming	MoA
13	Climate Promise	Ongoing	Climate Actions	UNDP
14	Deepening the Efforts to Implement NDC	Ongoing	NDC Actions	UNDP
15	REDD+ Investment	Ongoing	Forestry	UNDP
16	Institutional Strengthening for Catalyzing Forest Sector Development in Ethiopia	Ongoing	Forestry	UNDP
17	IGAD-FAO Partnership Programme on Drought Resilience	Ongoing	Drought Resilience	FAO
18	The FAO Technical Support Project Aligned to the Second Agricultural Growth Program	Ongoing	Crop and Livestock	FAO



3. CLIMATE ACTION REVIEW

3.1 METHODOLOGY

The Climate Action Review Matrix was developed under Activity 1.2.1 by the UNDP and FAO global team as a screening tool to assess climate actions in land-use and agriculture for their transformative change potential within the context of NDC and/or NAP implementation. The matrix allows for a comparative analysis of climate actions across seven dimensions of transformation to inform the prioritization of a transformative climate action to take forward under SCALA. A 'transformative climate action' in SCALA is one that is climate-informed, applies systems-thinking, promotes gender equality and social inclusion, contributes to sustainable development, fosters a whole-of-government approach, incentivizes private sector engagement and applies innovative technologies and financing instruments to achieve national climate change adaptation and/or mitigation goals in land-use and agriculture.

The review process of the assessments for transformative climate actions in land-use and agriculture sector was organized using the following approaches:

- Relevant climate adaptation and mitigation documents available in the land-use and agriculture sector were identified for technical review. These included: (i) National Community-based Participatory Watershed Development Guideline Including Climate Smart Soil and Water Management, (ii) Revisited Agriculture Sectors' Development Policy, (iii) National Climate Smart Agriculture Roadmap, (iv) Climate Smart Agriculture Scoping Study to Identify Climate Change Adaptation and Mitigation Actions, (v) Gender Analysis to Guide Mainstreaming Gender in NDC Implementation, (vi) National and Regional Forest Sector Development Plan, (vii) Ethiopia's Updated NDC and NAP, (viii) Climate Resilience Strategy of Agriculture and Forestry Sectors.
- Survey questionnaire was developed and administered to collect information required from five experts in Environment, Forest and Climate Change Commission (EFCCC), and four experts in Ministry of Agriculture (MoA) (see, annex 2). This was done through either in-person interview or discussion on phone/virtually. Responses from the survey informed the review of NAP/NDC priority for transformation potential.
- The existing capacity gaps were assessed by interviewing the relevant experts from the Environment, Forest and Climate Change Commission, and Ministry of Agriculture. Interviews generated the human, organizational, and system-related capacity issues that need to be addressed in the agriculture and land-use sectors.
- The climate actions review was undertaken using SCALA's analysis matrix to review and prioritize transformative priority adaptation and mitigation actions in the land-use and agriculture sector by comparing each action against a set of criteria spanning seven key areas.

Finally, based on priority actions identified by climate actions review matrix, a theory of transformative change developed, and work plan refined, and presented in the inception workshop.

Table 3 Action plan for the assessments of transformative actions in land-use and agriculture sector

No	Activity	Nov	Dec	Jan
1	Identify relevant climate adaptation and mitigation documents in the land-use and agriculture sector			
2	Develop survey questioner			
3	Review relevant climate adaptation and mitigation documents in the land-use and agriculture sector			



4	Conduct interview and discussion with relevant expert			
5	Conduct climate actions review matrix and prioritize priority climate actions in the land-use and agriculture sector			
6	Develop the programme's theory of transformative change			
7	Refine work plan			
8	Organize inception workshop			

3.2 ANALYSIS OF CLIMATE ACTION WITH TRANSFORMATIVE POTENTIAL

The updated NDC and NAP focus on the sectors identified as most vulnerable, namely: agriculture, forestry, health, transport, energy, land use and natural resource management, climate service and disaster risk, water and urban sectors. Within these sectors, 40 and 18 adaptation options have been identified respectively for implementation at all levels and across different development sectors, recognizing the considerable diversity in context and vulnerability across Ethiopia's regions and social groups.

Out of those options identified by NDC and NAP, 10 adaptation options are expected to be implemented by agriculture and land use sectors: (i) enhance food security by improving agricultural productivity in a climate-smart manner, (ii) diversify livestock and animal mix including promotion of poultry and small ruminants, (iii) enhanced climate resilient in livestock sector, (iv) prevent and control the spread of climate-driven vector-borne diseases, (v) improve rangeland and pasture land management diversification including selection of drought resistant animal breeds, (vi) expand the use of improved crop varieties with climate smart characteristics (vii) strengthen crop disease and pest monitoring systems in vulnerable areas, (viii) strengthen insurance mechanisms for climate risk management, (ix) enhance sustainable natural resource management, and (x) watershed protection, and enhance integrated watershed development to improve access of water.

Therefore, by using the seven criteria of the climate action review matrix as a screening tool, the transformative change potential of the priority adaptation options in the land-use and agriculture sectors could be assessed within the context of NDC and NAPs (systems-thinking, climate rationale, social inclusion and gender equality, whole-of-government, sustainable development, private-sector engagement and innovation). Out of the 10 adaptation options that have been identified in the NDC and NAP to be implemented by the agriculture and land use sectors, 3 adaptation options were identified as transformative climate actions for the SCALA programme to support: **(i) enhance integrated watershed management, (ii) enhance irrigation performance, and (iii) improve rangeland and pastureland management integrated with small ruminants.** How these actions could contribute to the national climate change adaptation and mitigation efforts in agriculture and land use sectors as well as the programme's objective are as follows:

- Integrated natural resources management and related activities in landscape system will improve ecosystem services, availability of water for irrigation and Improve availability of livestock feed. It responds to key projected climate hazards through making watersheds more resilient to natural resource degradation, drought, flood, forest fires, pests and diseases. Moreover, integrated natural resources management will reduce GHG emissions by improving carbon sinks in the planted biomass and soils through enhancing vegetation cover and management of soils.
- The irrigation value chain improves soil and water management and thus prevents soil and land degradation due to salinization, saves water for irrigating additional lands, increases agricultural productivity and marketable production; produces quality feeds, and creates jobs along the value chain. Moreover, the action responds to some projected climate risks through improving access and availability to water and resilience to drought and climate change-induced risks as well as indirectly



contributes to carbon emissions removals by reducing the expansion of agriculture to the forest, woodland and rangeland due to increased agricultural productivity.

- Small ruminant value chain will rehabilitate and protect pasturelands to improve feed availability and promote business in the production of small ruminants, which display relatively good feed conversion efficiency and thermos-tolerance. Small ruminants have triple economic purposes such as meat, milk and skin, and this will create jobs. And also, the action responds to some projected risks through improving communities' income and resilience to climate risks and contributes to carbon emissions removals by improving carbon sinks in the feed/shrub biomass and soils through enhancing vegetation cover and management of range/pastureland.

After review and analyses of relevant documents, primary data was collected from relevant experts in the MoA and EPA/EFCCC using the questionnaire. The capacity gaps and needs assessment primarily focused on the four most common CRGE implementation capacity areas, namely planning, resources, delivery and institutions. We identified the following gaps and capacity needs (Table 4) related to the skills, competencies, processes and systems.

Table 4 CRGE capacity gaps and potential capacity development actions identified

No	Capacity areas	Capacity Gaps Identified	Capacity Dimension	Actions needed
1	Planning	Inadequate capacity to analysis and strategically planning for CRGE mainstreaming	Human/ Systems	- Capacity development training, - System establishment/ improvement
		Inadequate capacity to develop context specific operational planning	Human	- Capacity development training - Experience sharing
2	Resources	Limited capacity to mobilize resource and attract finance for CRGE implementation	Human/ Organizational	- Capacity development training, - Experience sharing, - Enhance partnership and donors engagement
		Limited capacity for effective and efficient resource utilization	Organizational/ Human	- System establishment/ improvement, - Capacity development training
3	Delivery	Inadequate capacity for properly managing and monitoring (M&E, MRV) of effective CRGE actions	Human/ Systems	- Capacity development training, - Experience sharing, - M&E, MRV system establishment/ improvement
		Limited responsive capacity for CRGE priority actions delivery	Human	
4	Institutions	Ineffective coordination of the CRGE priority actions implementation	Organizational	- Develop stakeholder coordination guideline, - Enhance partnership
		Limited Knowledge management and utilization capacity for CRGE implementation	Human/ Systems	- Capacity development training, - Experience sharing, - Knowledge management system establishment/ improvement



4. IMPLEMENTATION OF TRANSFORMATIVE CLIMATE ACTION IN LAND USE AND AGRICULTURE

4.1 INCEPTION WORKSHOP

Participants included MoA, EPA, FAO and UNDP high and technical officers and representatives from regions and key stakeholder groups involved in climate change, environment, agriculture, land and rural development planning in Ethiopia. Importantly, the workshop brought together actors from national and regional levels, to ensure that the mandated organizations for climate change adaptation and mitigation planning and implementation in the land use and agriculture sectors at the national, regional and local levels could share their perspectives and become aware of SCALA. The purpose of the workshop was to convene and share SCALA Programme baseline information, the draft Theory of Change and the draft work plan for stakeholder validation and finalization. The overall objective was to ensure that SCALA programme's design and implementation respond to the country's climate change adaptation and mitigation priorities and needs in the agriculture and land use sectors, and in line with national development objectives. See Annex 3 for the agenda and participant list.

The inception workshop began with a brief programme introduction and followed by keynote speeches from UNDP and FAO representatives Cleophas Torori, UNDP D/Rep and Workicho Jateno, AFAOR respectively. Similarly, a welcome speech from the Environmental Protection Authority representative Nigussu Lemma, Ex. Director and opening remarks were given by H.E, Wondale Habtamu, Advisor State Minister of Ministry of Agriculture. Besides, four short presentations were made, including the overview of the SCALA Programme by the global team, national SCALA work plan, overview of NAP readiness project, and gaps in the CRGE M&E system. Finally, a discussion took place on the presentations and other programme's implementation-related issues, and participants agreed upon the way forward.

The inception workshop delivered the following:

- The proposed work plan of the programme was discussed and validated.
- Roles and responsibilities of stakeholders were identified, and the following way forward agreed upon:
 - i. Incorporate comments (improve integrations of stakeholders during implementations of the program) finalize work plan and share for stakeholders.
 - ii. Establish Programme Steering Committee.
 - iii. Use climate related documents relevant to SCALA.
 - iv. Continue consultation with all relevant stakeholders at federal and regional levels during implementation.
 - v. Implement the programme as per the work plan.

4.2 THEORY OF TRANSFORMATIVE CHANGE

In the context of SCALA, transformative climate action refers to activity or integration of activities that contributes to systems-wide transformational change through alleviating climate change impacts and attains economically, socially and environmentally sustainable development in and beyond the land use and agriculture sectors in the long term. A theory of change (ToC) enables to demonstrate how agricultural systems transformation will occur in the integrated watershed management, irrigation and small ruminant production within Ethiopia's landscape system. It offers an overarching narrative that ties together work-plan activities as mechanisms of transformation.



Moreover, theory of change considers the interconnected interventions and outcomes that included in the integrated landscape system which are highly interrelated and absolutely complementing interventions (integrated watershed management, irrigation and small ruminant production) proposed to enhance translation of transformative priority into actions in and beyond land use and agriculture sectors.

The Ethiopia SCALA Programme aspires to contribute to the medium and long-term goal of supporting transformative climate actions in the land-use and agriculture sectors that reduce GHG emissions and/or enhance removals, as well as strengthen climate risk reduction, resilience, and adaptive capacity in the integrated landscape system. In terms of the programme-specific objective, SCALA aims for Ethiopia to have translated NDC and/or NAPs into actionable and transformative climate actions in land-use and agriculture with multi-stakeholder engagement.

Therefore, Ministry of Agriculture (MoA), Ministry of Water and Energy (MoWE), Ministry of Lowland and Irrigation (Moll), Ministry of Planning and Development (MoPD), Ministry of Finance CRGE Facility, Environmental Protection Authority (EPA), and National Metrology Institute (NMI) will be taking part in the implementation of SCALA at national levels. In addition, Regional Bureau of Agriculture and Environmental Protection Authority will coordinate local actors at Woreda/District level. Local governments also play a critical role by coordinating and encouraging their communities to implement CRGE adaptation and mitigation priority actions.

Transformational adaptation will be achieved through integrated natural resources management and related activities within the landscape system which will significantly contribute to the improvements of ecosystem services and natural resource restorations that result in enhanced water and livestock feed availability, which enables to promote irrigation as well as small ruminants' production. The geographical scope for implementation of the planned activities will be jointly defined with all the partners. Similarly, during selections of activities applied within the system and sub-systems, inclusiveness, accessibility, ease of implementations and affordability of activities for vulnerable groups will be considered to encourage participation and enhance benefit of marginalized communities, women and youths.

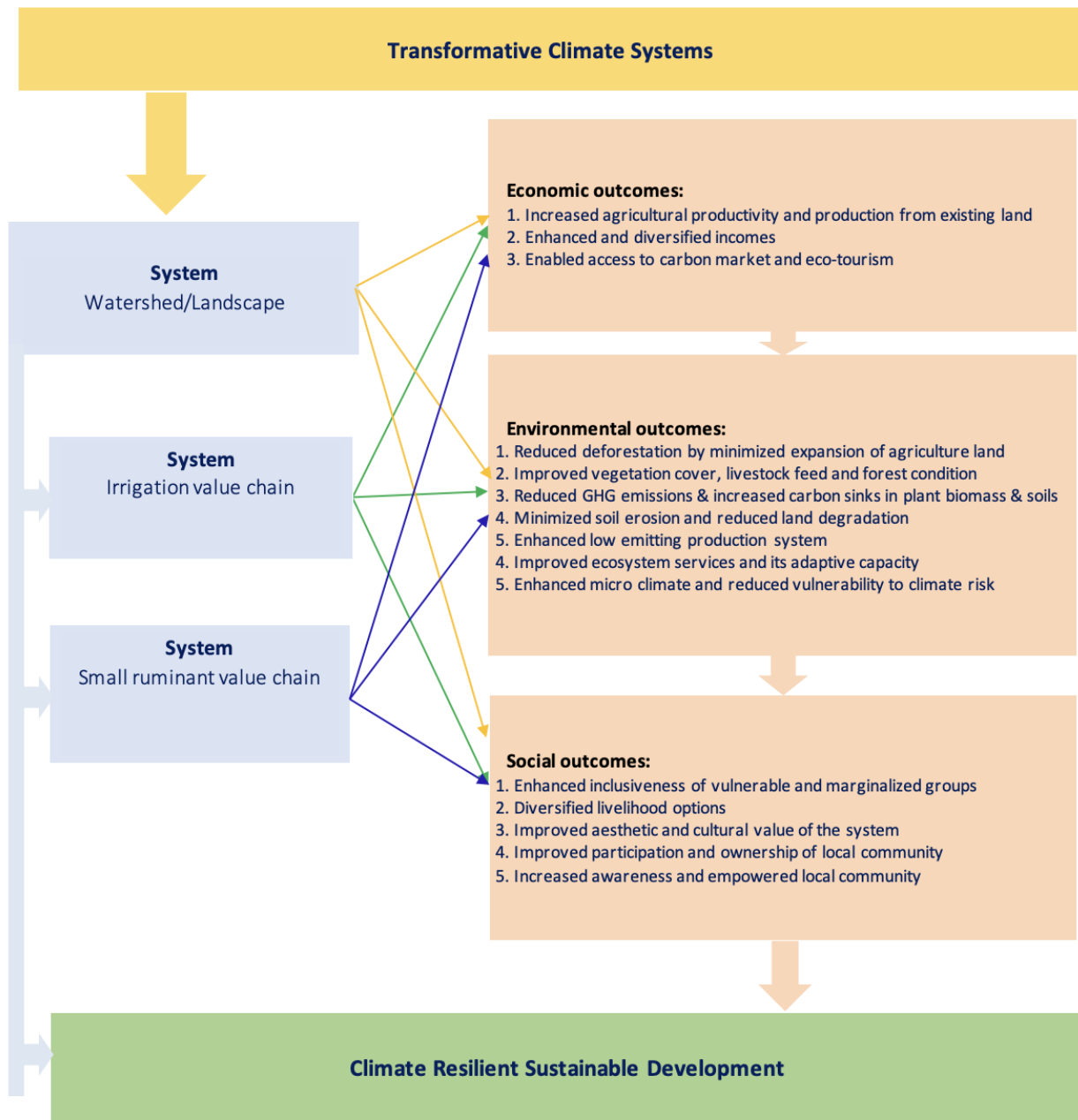
Moreover, because of its integrated manner, integrated water shade management contributes to livelihood and income diversification, as well as reduces exposure of vulnerable groups to climate hazards by improving adaptive capacity of the communities and reducing GHG emissions and enhancing carbon sinks in the plant biomass and managed soils within the watershed. The approach attempts to achieve balance amongst multiple goals over the long-term and to adapt to changing conditions by contextualizing farms, land uses and livelihood options of the people living in the landscape, as a part of multi-dimensional changes, socio-ecological resilience and adaptation to past multifaceted pressures and expected future transformative changes.

The irrigation value chain improves soil and water management and thus prevents soil and land degradation due to salinization, saves water for irrigating additional lands, increases agricultural productivity and marketable production; produces quality feeds and creates jobs along the value chain. The induced livelihoods, additional incomes and quality feeds will not only reduce pressures on mining of natural resources but will also promote climate actions in the landscape. Small ruminant system will rehabilitate and protect pasturelands to improve feed availability and promote inclusive business in the production of small ruminants to improve engagements of marginalized groups. Small ruminants have triple economic purposes such as meat, milk and skin/hide and this will enhance nutrient security and create jobs. Moreover, the system has a significant potential for attracting private sector investment and improving involvements of women and youths.

The complementarities of the system and the two sub-systems will address the identified barriers to climate change adaptation and mitigation by allowing a shift from the dominant current mode of practices (less inclusive, non-resilient, non-integrated productive options and the top-down transfer of static technological packages) to integrated system-level adaptation, community-led technological promotion, community-based landscape governance and inclusive adaptive information-led approaches to enable communities adapt effectively to the effects of climate change and variability.



FIGURE 4: THEORY OF TRANSFORMATIVE SYSTEMS CHANGE



4.3 WORKPLAN

4.3.1 Outcome 1

Outcome 1 - Information and assessments used by national stakeholders to identify and appraise transformative climate actions to advance NDC/ NAP priorities in land use and agriculture

The foundation for the proposed outcome 1 has been laid during the inception phase by conducting participatory technical reviews of NDC, NAP, and other climate adaptation and mitigation related policies



strategies and plans within the sectors and identifying priority transformative climate actions accordingly. This has been followed by a multi-stakeholder validation workshop to endorse the overall review process and validate priority options with transformative potential in land-use and agriculture to be supported under SCALA. The priority transformative climate actions will be taken forward by in-depth systems level assessments. Participatory systems-level assessments will be undertaken in the selected **community watershed** (350-400 ha using geographical boundary per the Community Based Participatory Watershed Management ([CBPWM](#)) Guidelines) and livelihood systems by following watershed assessment principles and logics. Moreover, the assessments will be conducted by developing an appropriate methodology and model for priority community watershed and livelihood systems to define and develop evidence-based transformative and social inclusive implementation options and plans at local level in land-use and agriculture sectors.

Under this outcome, the following deliverables are expected to be achieved: technical review report, stocktaking report, systems-level assessment methodology and tool, community level climate risk and livelihood profile, landscape-livelihood systems assessment report, gender-sensitive small ruminant value chain analysis report and implementation plan developed through multi-stakeholder engagements in collaborations of ministry of agriculture, UNDP and FAO. Finally, those interventions will result in the strong stakeholders' engagement and evidence base for implementation of transformative climate action in land-use and agriculture sectors.

4.3.2 Outcome 2

Outcome 2 - Climate risk-informed land-use and agriculture sector priorities integrated into national and sectoral planning, budgeting and monitoring

The proposed outcome will be achieved through strengthening multi-stakeholder coordination and institutional capacities to enhance the integration of climate priorities into policies, plans and budgets. identify barriers in the enabling environment for systems-level changes; support the development of policy instruments and the mapping of key stakeholders and setting up a climate budget tagging system. These will be followed by review of capacity gaps and needs, organization of trainings for key stakeholders on familiarization of NDC and NAP and gender-responsive implementation of priority actions, and MRV, M&E systems. Accordingly, develop and implement MRV and M&E system improvement plans for the AFOLU sector.

The following deliverables are expected to be achieved: institutional barrier and stocktaking analysis report, training report, implementation mechanisms, established/improved climate budget tagging system, MRV and M&E capacity gaps and needs review report, and MRV and M&E system improvement plan developed; through Ministries of Agriculture and Finance in collaborations with UNDP and FAO. Finally, NDCs and NAPs priorities for land-use and agriculture enhanced and integrated into sectoral monitoring, planning and budgeting.

4.3.3 Outcome 3

Outcome 3 - Private sector engagement in climate action in land-use and agriculture increased

The proposed outcome will be achieved through identifying policy and financial de-risking measures and business opportunities and developing project concept notes to leverage investment for transformative and inclusive action in partnership with the private sector. Lastly, the following deliverables are expected to be achieved; business model analysis report, public-private sector consultation report and scale up gender-responsive and inclusive climate actions concept notes developed; through public-private sector engagements in collaborations with UNDP and FAO. Enabling environment and incentives enhanced for private sector engagement in NDCs and NAPs implementation.

The detailed SCALA Ethiopia results framework is presented in annex 1.

4.4 STAKEHOLDER MAPPING

The work-plan is expected to be implemented through multi-stakeholder engagements at all levels for instance; agriculture, water and finance ministries as well as environmental protection authority are expected to be involved at the national level in collaborations with UNDP and FAO. Similarly, at regional level agriculture and



water bureaus as well as regional environmental protection authority, and at zonal and district level offices of agriculture, water and community-based organizations are expected to be involved in the implementation of work-plan. In the districts those are implementing projects/programs mentioned in the table 2 are expected to integrate the implementations of the projects/programs with the work plan.

5. OPERATIONS

5.1 COUNTRY AND GLOBAL TEAM COORDINATION

The SCALA programme is technically supported both by country and global team members. Country team comprises three experts: one expert each from UNDP and FAO, and additional one technical specialist in charge of the overall coordination of the programme implementation and enhanced integration with relevant CRGE line ministries by using the existing CRGE implementation coordination structures. Moreover, the global teams with one expert each from UNDP and FAO provides technical supports and experience sharing for SCALA country team closely.

Robust coordination and communications arrangement has been established between UNDP, FAO and the technical specialist most of the time coordinating through email and or phone daily and (virtual) meetings at least once per week online to discuss and update the progress of the programme, share the next tasks, and periodically meet in-person to support the implementation of SCALA.

Similarly, strong coordination and communications arrangement also exist between the country and global teams frequently communicates via email provides technical support and periodically communicate online virtually discuss and update the progress of the programme, share experiences and next tasks to support the implementation of the programme.

5.2 PROJECT STEERING COMMITTEE (PSC) OR ADVISORY GROUP (PAG)

Project steering committee is not yet established, but it expected to be established within 3 months after the inception workshop. The steering committee will draw membership from the public, private sector, national and international development partners, civic society, research, academia and women representative with the mandate to oversee the overall program implementation. The frequency of the steering committee meetings will be decided during the first meeting of the committee. Although for most similar project, the steering committee meets twice a year.

5.3 MONITORING AND EVALUATION (M&E) AND REPORTING

During the inception phase activities accomplished were reported in quarter 4 2021. Quarterly reporting will continue as per the program's reporting timetable. The rest of expected results at outcome level, corresponding indicators and mid-term and end-of-project targets in the results framework will be monitored annually and evaluated periodically during the implementation. Through iterative management, the findings of this regular monitoring will feed into the programme's implementation work plan to contribute to adaptive management. Project-level monitoring and evaluation will be undertaken in compliance with the guidelines on results-based project planning and monitoring in the IKI, as well as UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. National SCALA team is responsible for ensuring full compliance with all UNDP Project monitoring; quality assurance, risk management, and evaluation requirements and FAO also contribute.



5.4 KNOWLEDGE MANAGEMENT AND COMMUNICATIONS

Knowledge management is the process of identifying, capturing, evaluating, retrieving, sharing and effective utilization of knowledge. Currently knowledge has become a central productive and strategic asset in climate change adaptation and mitigation interventions, and a potential source of competitive advantage. It enhances the implementation capacity of humans and institutions through learning from practices and working environment and incorporates knowledge into the ongoing processes of the program. Knowledge communications is the process of knowledge sharing. It includes everything from knowledge training to knowledge exchange, where knowledge can be acquired or enhanced through knowledge discussions with other stakeholders within the system.

Types of knowledge products included in the national SCALA work plan are best practices, lessons learned easily implemented and cost-effective practices in land use and agriculture sectors. The knowledge products generated during the implementations of the program will be properly identified, categorized, organized, documented, stored, transferred and applied/incorporated in the work planes. Moreover, it will be communicated by using all available communications mechanisms and techniques; capacity building workshops, stakeholders' consultation meetings, publications and websites to share best practices and lessons learned with wider stakeholders.



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ANNEX 1: PROGRAMME RESULTS FRAMEWORK AND BASELINE INFORMATION

RESULTS CHAIN	ACTIVITY	INDICATOR	UNIT	BASELINE	TARGET
Outcome 1: Information and assessments used by national stakeholders to identify and appraise transformative climate actions to advance NDC/ NAP priorities in land use and agriculture					
Output 1.1: ¹ Evidence base for implementation of transformative climate action in land-use or agriculture strengthened	Activity 1.1: Conduct participatory technical reviews of NDCs and/or NAPs to identify priority land-use and agriculture actions with transformative and systems-change potential	Number of technical reviews conducted on transformative climate actions	Number of reports and Number of workshops	0	1
	Activity 1.2: Conduct participatory systems-level assessments to define evidence-based transformative and inclusive implementation options	Number of systems-level assessments conducted	Number of reports	0	1
Outcome 2: Climate risk-informed land-use and agriculture sector priorities integrated into national and sectoral planning, budgeting and monitoring					
Output 2.1: ² NDC and NAP priorities for land-use and agriculture enhanced and integrated into sectoral planning and budgeting	Activity 2.1: Strengthen multi-stakeholder coordination and institutional capacities for the integration of NDC and/or NAPs' priorities on land-use and agriculture in policies, plans and budgets	Number of sectors and bureaus adopted sectoral plans and budget submissions that incorporate NAPs and NDC priorities	Number of reports, Number of budget tagging systems	Weak	1, 1
	Activity 2.2: Strengthen the existing MRV and M&E systems at national and/or sectoral level for monitoring and reporting in regard to mitigation and/or adaptation in land-use and agriculture,	Number of MRV and M&E systems operationalized at national level for monitoring and reporting	Number of reports, Number of improvement plans	1	2, 1

¹ Global programme indicator for Output 1.1: Number of an assessments (i) conducted on transformative, gender-responsive climate actions in a food, landscape or other related systems identified through NDC and/or NAPs reviews and (ii) assessed through inclusive multi-stakeholder consultations that address the needs and priorities of women and men

² Global programme indicators for Output 2.1: 1) Number of ministries having adopted sectoral plans and/or budget submissions that (i) incorporate gender-responsive NAPs and NDC land-use and agriculture priorities and (ii) are based on consultations that increase the participation of women and women's representatives in decision-making; 2) Number of MRV and/or M&E systems are operationalised at national and/or sectoral level for monitoring and reporting on mitigation and/or adaptation in land-use and agriculture, including sex-disaggregated data; and 3) Number of NDCs and/or NAPs enhanced with updated land-use and agriculture priorities and gender-responsive targets



	including collection of gender disaggregated data	on mitigation and adaptation actions			
	Activity 2.3: Enhance NDCs and/or NAPs by integrating transformative and inclusive land-use and agriculture priorities	Number of NDCs and NAPs enhanced with updated land-use and agriculture priorities and gender-responsive targets	Number of reports	1	2
Outcome 3: Private sector engagement in climate action in land-use and agriculture increased					
Output 3.1: ³ Enabling environment and incentives enhanced for private sector engagement in NDCs and NAPs implementation	Activity 3.1: Identify policy and financial de-risking measures and business opportunities	Number of de-risking policies or strategies identified	Number of reports, Number of road maps	0	3, 1
	Activity 3.2: Develop project concept notes to leverage investment for transformative and inclusive action in partnership with the private sector	Number of project concept notes developed for transformative and gender-responsive climate action with public private partnerships	Number of concept notes	0	2

³ Global programme indicators for Output 3.1: 1) Number of gender-responsive de-risking strategies validated by existing institutional coalitions of public, civil society and private sector actors taking into account well-being of local communities/different actors along value chain and 2) Number of project concept notes for transformative and gender-responsive climate action with public private partnerships



ANNEX 2: LIST OF EXPERTS INTERVIEWED OR SURVEYED IN REVIEW PROCESS

No	Name	Organization	Gender	Mode of participation	
				In-person	Via Phone
1	Tesfaye Gashawu	EFCCC	Male		
2	Benti Firdisa	EFCCC	Male		
3	Muluneh Hedato	EFCCC	Male		
4	Mohamed Andoshe	EFCCC	Male		
5	Mechial Hordofa	EFCCC	Male		
6	Tefera Tadesse	MoA	Male		
7	Abinet Mengestu	MoA	Male		
8	Samson Emiru	MoA	Male		
9	Addis Negash	MoA	Male		



ANNEX 3: INCEPTION WORKSHOP AGENDA, LIST OF PARTICIPANTS, MINUTES AND PRESENTATIONS

A3.1 INCEPTION WORKSHOP AGENDA 28 JANUARY 2022, IN ADDIS ABABA

Time	Activities	Speakers	Facilitator
8:30-9:00	Registration of participants	Berhanu Assefa, SCALA National Project Coordinator	
9:00-9:30	Programme introduction	Yibeltal Tiruneh	Tesfaye Gashaw, EPA
	Introduction of participants	All	
	Keynote Speech	Cleophas Torori, UNDP D/Rep	
	Keynote Speech	Workicho Jateno, AFAOR	
	Welcome Remark	Nigussu Lemma, Ex. Director, EPA	
	Opening Speech	H. E, Wondale Habtamu, Advisor, MoA	
9:30-9:50	Overview of SCALA Programme	Krystal Crumpler and Samuel Tumwesigye , SCALA Global Team	
9:50-10:10	SCALA Ethiopia Programme and Work Plan	Berhanu Assefa, SCALA National Project Coordinator	
10:10- 10:25	Gaps in CRGE M&E system	Mensur Desse, EPA	
10:25-10:40	NAP Readiness Project	Medhin Fiseha, GGGI	
10:4-11:00	Health Break		
11:00-12:15	Discussion	All	H. E, Ato Wondale Habtamu, State minister Advisor of the Minister
12:15-12:20	The Way forward	Ababu Anage	
12:20-12:25	Closing remark	H. E, Wondale Habtamu, State minister Advisor of the Minister	
12:25-12:30	Lunch	SCALA Team	



A3.2 LIST OF INCEPTION WORKSHOP PARTICIPANTS (IN-PERSON AND ONLINE)

No	Organization	Name of Participants	M/F	Email
I	National Level Participants			
1	Ministry of Finance	Mizgana	M	eyassum@gmail.com
2	Ministry of Planning and Development	Abas	M	abas.mohammed5@gmail.com
3	Ministry of Water and Energy	Betelihem Mekonnen	F	betmak2020@gmail.com
4	Ministry of Irrigation and Lowland Areas	Samuel	M	samuelhssn2@gmail.com
5	Ministry of Women and Social Affairs	Tigist	F	tigista2008@gmail.com
6	Ministry of Trade and Regional Integration	Dessenet Baay	M	adeymeareyy@gmail.com
7	Ministry of Industry	Esimale	M	mesmael8@gmail.com
8	Ministry of Agriculture	Samson Emiru	M	samiemeru81@gmail.com
		Wondale Habtamu	M	wondalehabtamu00@gmail.com
		Getu Dame	M	getu.dame@yahoo.com
		Amerga	M	yekearsieamerga@gmail.com
		Tigistu	M	tigistugab@gmail.com
9	Environmental Protection Authority	Mensur D.	M	mensurdes2012@gmail.com
		Negusu Lema	M	negusgebre@gmail.com
		Tesfaye Gashew	M	fish2952@gmail.com
		Bemnet	M	bemnet.teshome@undp.org
10	Ethiopia Metrology Institute	Tarekgn Abera	M	undefined [tatarish59@gmail.com]
11	Agriculture Transformation Agency	Teshome A.	M	teshome.asfaw@ata.gov.et
12	NDC Partnership Focal	Muktar A.	M	Muktar.Ahmed.5@ndcpartnership.org
13	Ethiopia Institute of Agriculture Research	Dr. Girma M.	M	mamogirma2018@gmail.com
14	Chambers of Commerce	Yesuf Hagos	M	hagosyesuf@gmail.com
15	Environment, Biodiversity and CCF	Dr. Girma B.	M	girmaba@gmail.com
16	MAKOBU Enterprise (Private sector)	Ato Makonnen	M	bmbutta@gmail.com
17	Int. Center for Tropical Agriculture (CIAT)	Sintayehu A.	M	s.alemayehu@cgiar.org
18	Global Green Growth Institute (GGGI)	Medihin F.	F	medhin.mekonnen@gggi.org
II	Participants from Regional Bureaus of Agriculture			
1	Oromia Regional State Bureau of Agriculture	Dawit	M	milldave1925@gmail.com
		Eliyas Kedir	M	fransbekan@gmail.com



No	Organization	Name of Participants	M/F	Email
		Asmera Deresa	M	basmeraderesa@gmail.com
2	Amahara Regional State Bureau of Agriculture	Bantamlak	M	Bantamlak2000@gmail.com
		Dr. Almaz Giziew	F	almazboa2014@gmail.com
		Esmelalem Mhired	M	esmhired@gmail.com
		Tsegaye Temesgen	M	tsegayetemesgen@gmail.com
3	SNNP Regional State Bureau of Agriculture	Hussen	M	hussqcf2020@gmail.com
		Andgna Shinale	M	andegnaasha@gmail.com
4	Sidama Regional State Bureau of Agriculture	Bereket	M	bereketassefa94@gmai.com
5	Afar Regional State Bureau of Agriculture	Ali	M	saytungino@gmail.com
		Muhammed Musa	M	muhammedmusa621@gmail.com
6	Somali Regional State Bureau of Agriculture	Gedy mohammed	M	hashiwacays@gmail.com
		Badal Kenadid	M	badal.kenadid@gmail.com
7	Direedawa City Administration	Muluken	M	kidanmule@gmail.com
		Aliyi Ahemed	M	aliyahmed454@gmail.com
		Dawit Yosef	M	awtsf7194@gmail.com
		Eliyas Aliyi	M	elias.aliyi@yahoo.com
8	Harari Regional State Bureau of Agriculture	Ararso	M	ararsoadem@gmail.com
		Nure	M	nure2020@yahoo.com
		CRGE Focal	M	anjalgabadiidam@gmail.com
9	Gambela Regional State Bureau of Agriculture	Ati Abulla	M	abullaatey1@gmail.com
10	B/Gumuz Regional State Bureau of Agriculture	Ashafi (GCF focal)	M	ashafimohammed1@gmail.com
		Fekadud (D. head)	M	fekadudesalegn2016@gmail.com
		Yohannes (CRGE F)	M	yohannestame76@gmail.com
III	Participants from Regional Environmental Protection Authority (EPA)			
1	Oromia Regional State EPA	Bona	M	senabona14@yahoo.com
2	Amahara Regional State EPA	Aweke EPA Director	M	yitawoke@gmail.com
		Astedadrew	M	astedadrew2015@gmail.com
		Bekele Zerihun	M	Bekelezerihun@yahoo.com
3	SNNP Regional State EPA	Misrak kumalo EPA	M	kumalo2005@gmail.com
		Andgna Shinales	M	andegnaasha@gmail.com
4	Sidama Regional State EPA	Tamiru Notora EPA	M	tamirunotora@gmail.com



No	Organization	Name of Participants	M/F	Email
		Legese Hankarso	M	
5	Somali Regional State EPA	Hasa Mahamud	M	fadan575@gmail.com
6	Harari Regional State EPA	Mamisha	M	mamisha58@gmail.com
7	B/Gumuz Regional State EPA	Abdulkerim Musa (EPA Head)	M	abdulkerimmusa9@gmail.com
		Habtamu (EPA Director)	M	habtamutaferk@gmail.com
		Bukayaw Moges	M	atsedchomaryam@gmail.com

A3.3 MINUTES OF INCEPTION WORKSHOP

Activities	Responsible Person	Major points /remarks/reflections
Introduction to the day	Tesfaye Gshaw, EFCCC Communication Director, EPA	Welcomes participants and invited Mr. Yibeltal Tiruneh to introduce the program objectives
Introduction of the Program	Mr. Yibeltal Tiruneh, from FAO National SCALA Team Member	<ul style="list-style-type: none"> • Climate change impacts every sector, livelihoods of societies and the environment globally and in Ethiopia • In response to that, Ethiopia has been implementing NDCs and NAPs • SCALA, a global UNDP-FAO joint Programme, is designed to contribute to the implementation of NDC and NAP priority climate actions in agriculture and land use in transformative way. • So far, the following activities have been completed: <ul style="list-style-type: none"> ✓ Baseline survey has been conducted and the existing gaps to implement priority climate actions were identified. ✓ The SCALA work plan developed • Objectives of the Workshop <ul style="list-style-type: none"> ✓ introduce the SCALA Programme to key stakeholders and officially launch it ✓ share insights on inception activities ✓ get inputs on the identified interventions and work plan of the programme ✓ discuss the next steps • Workshop participants and modality <ul style="list-style-type: none"> ✓ Participants: Representatives of key federal and regional government ministries and bureaus, relevant development partners, private sector, CBOs, university and research. ✓ Modality: This workshop is hybrid: participants from Addis Ababa attend physically in the hotel while regional state participants are participating virtually.



Activities	Responsible Person	Major points /remarks/reflections
		<ul style="list-style-type: none"> • He also introduced the program schedule and house keeping
Keynote Speech	Cleophas Torori, Deputy Resident Representative UNDP	<ul style="list-style-type: none"> • Glad to join this important session • Noted that participants are very relevant for our today's session and acknowledged the presence of relevant stakeholders from MoA, EPA, Regional, national and international partners and thanking all for attending the workshop • The negative impact of climate change on the agriculture will become global problem • These needs concerted efforts on land use and agriculture • With business as usual the GHG emission will increase and achieving the 1.5-degree celcius reduction will not be feasible • UNDP along with FO have designed the program to address the challenges faced • The program will create learning opportunity • He also mentioned the government of Ethiopia focus on the climate adaptation and mitigation actions in the 10-year national development plan, the updated NDC and the NAP and UNDP is very much engaged in this process • He asked the participants to contribute their valuable expertise • UNDP is proud to be part of the process • He finally acknowledges the contribution of EPA, MoA and other, and concluded his remark by wishing a successful workshop
Keynote Speech	Workicho Jateno, FAO, Country Director Representative	<ul style="list-style-type: none"> • He welcomed participants and thanked them for attending the workshop • He highlighted the impacts of climate change on different sectors • Also highlighted the GHG contribution of the agriculture sector and the unsustainable agriculture production system • He mentioned FAOs prior support to the government in MRV, carbon emission phase and through recently signed two projects • Also, the support provided on AGP I and II • He quoted UNDPs and FAO joint huge collaborations and experiences to work together • He underscored that the government should lead the process of the SCALA Project implementation
Welcome Remark	Negus Lemma, Director General; Climate Change and Biodiversity, EPA	<ul style="list-style-type: none"> • Expresses his pleasure to deliver this keynote speech on behalf of the Ethiopian Environmental Protection Authority (EPA) • Ethiopia is extremely vulnerable to the impacts of climate change due to its reliance on rain-fed agriculture and natural resources, as well as its relatively limited adaptive capacity. • As a result, the impact of climate change and variability is already being felt in practically all sectors, albeit at varying intensities across the country. • Mentioned Ethiopia's responses by taking innovative steps to formally merge the aims to develop a green economy while



Activities	Responsible Person	Major points /remarks/reflections
		<p>building greater resilience and adaptation to climate change within a single policy framework, namely the 2011 Climate Resilient Green Economy Strategy.</p> <ul style="list-style-type: none"> • With the aim to reduce vulnerability to adverse impacts of climate change, Ethiopia also launched a fifteen-year National Adaptation Plan in 2017, that has identified 18 adaptation options in main vulnerable sectors • As we are officially launching this program, I want to emphasize the necessity of forging solid cooperation across value chains among all stakeholders participating in the program's implementation. • Needless to mention, the successful implementation of it is contingent on strong leadership, ownership and coordination at all levels. • It is my adamant belief that the full implementation of this program will have a significant contribution not only to realizing the CRGE Strategy/NDC but also to reinforcing the ongoing 2030 SDGs. • As he concludes he expresses his strong appreciation to the Ministry of Agriculture (MoA), United Nations Development Program (UNDP), and World Food and Agriculture Organization for jointly developing the SCALA Programme, which helps us to adaptation and mitigation options identified in the NDC and NAP into actions. • This cooperation will be strengthened as we deep dive into the actual implementation of the program and beyond. • He concluded his speech by wishing effective deliberations and a pleasant stay!
<p>Opening Speech</p>	<p>H. E, Wondale Habtamu, Advisor of the Minister MoA</p>	<ul style="list-style-type: none"> • Expresses his pleasure to deliver this opening speech on behalf of the Ministry of Agriculture (MoA) • As you all know, climate change has become one of the most pressing problems faced by the global community and a major challenge to development, especially in developing economies such as our own. • Improvements in agriculture production and consequently food security are under increasing threat from global climate change. Indeed, it would not be an exaggeration to state that climate change is perhaps the major emerging threat to the lives and livelihoods of the world population. • Agricultural production is particularly vulnerable to changes in climate due to its significant reliance on weather patterns as well as other environmental factors. • The Government of Ethiopia recognized climate change as a growing threat to poverty reduction, economic growth and social transformation. Accordingly, the government of Ethiopia developed the CRGE strategy with the vision of building a climate resilient green economy and to make the country carbon neutral



Activities	Responsible Person	Major points /remarks/reflections
		<p>by 2025 while at the same time envisaging to attain middle income status.</p> <ul style="list-style-type: none"> • The ten years development plan is designed based on this reality to which other development interventions should also align with parallelly. • Based on the CRGE strategy Ministry of Agriculture in collaborations with Development Partners has developed the Agriculture and Forestry sectors Climate Resilience strategy. • This strategy focuses on the challenges faced and 41 identified promising climate change adaptation and mitigation options in the agriculture and forestry sectors related to current and future climate, the options to cope with these climate change related challenges. • Moreover, the Ministry has mainstreamed identified climate change adaptation and mitigation actions into development policy, plans projects and programmes. • Besides, the Ministry of Agriculture and its Development Partners have made important advances in moving forward Climate Smart Development agenda as articulated in the sectors' Climate Resilience strategy. • Recognizing the problem of food insecurity is exacerbated by climate change, several donors supported development programs aimed to adapt to climate change are implemented in Ethiopia. • One such program is the Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs (SCALA) jointly implemented by MoA, UNDP and FAO Ethiopia. • Nevertheless, it would be important to emphasize that if climate change adaptation and mitigation interventions continue to be implemented in the traditional business as usual manner, they might fail to deliver the anticipated optimal benefits. In other words, though we can't precisely predict the future because of limited information, it is important that we plan our interventions with adequate regard to the "likely future" or "additional "burden that is expected to arise due to climate change. It is time to think of ways that can help us make our interventions responsive to probable alterations. To this effect, several initiatives, within the ministry, were include climate adaptation technologies and practices in their programming. • SCALA Programme that we are launching today is purposively designed to ensure sustainability by the complete integration of to support transformative climate actions in the land use and agriculture sectors to reduce emissions and enhance adaptive capacity through enhancing collaboration between the public and private sectors to drive implementation of actions. • He concludes his speech; climate change is not something we can push aside and ignore. It is a reality, and we need to pull together our resources, knowledge, and experience to cope with



Activities	Responsible Person	Major points /remarks/reflections
		<p>the challenges. Unless addressed systematically and, through a coordinated effort, climate change could negatively impact the country's progress to transformation.</p>
<p>Overview of SCALA Global Programme</p>	<p>Samuel Tumwesigye & Krystal Crumpler, UNDP and FAO Global SCALA Team</p>	<ul style="list-style-type: none"> • Goal <ul style="list-style-type: none"> ✓ Support transformative climate action in the land-use and agriculture sectors to reduce GHG emissions and/or enhance removals, as well as strengthen resilience and adaptive capacity to climate change in participant countries. • barriers to scaling up climate action <ul style="list-style-type: none"> ✓ The barriers which are mentioned in the workshop are Limited generation and application of information to identify transformative climate actions, Insufficient coordination and capacity for cross-sectoral planning and implementation of climate actions, Low level of integration of NDC and NAP priorities into national planning and budgeting processes and Lack of country-level adaptation and mitigation information systems for M&E and MRV • The cross-cutting issues highlighted in the presentation are Cross-cutting issues <ul style="list-style-type: none"> ✓ Whole-of-government approaches ✓ Inclusion ✓ Women's empowerment and gender equality ✓ Private sector engagement ✓ Capacity development ✓ Ongoing COVID-19 pandemic's impacts by emphasizing the interconnected role of food, agriculture and land-use to foster more resilient recovery • SCALAs global implementation approach, engagement with partners and timeline is also described
<p>SCALA Programme Work-Plan</p>	<p>Berhanu Assefa Program Coordinator</p>	<ul style="list-style-type: none"> • He highlighted Ethiopia's NDC and NAP and as SCALA is built on this national strategy and will contribute for their implementation • Baseline study • The Approach used to conduct baseline survey and transformative systems are document review and gathering data through questionnaires • Gaps identified: <ul style="list-style-type: none"> ✓ Limited implementation capacity at all level; ✓ Weak integration among climate actors; and ✓ Limited resource and information management systems (MRV, M&E) • He also briefly described the overall work plan of the project



Activities	Responsible Person	Major points /remarks/reflections
Overview of NAP GCF Readiness Project	Medhin Fiseha NAP Readiness Team Lead/GGGI	<ul style="list-style-type: none"> • She has presented about the project alignment with NAP and the components of the project • More importantly, climate change adaptation has received adequate treatment and focus in the updated NDC. • Addressing the NAP-ETH strategic priorities remains critical for realizing Ethiopia's CRGE vision. • Accordingly In line with NAP-ETH, the NDA in EPA in collaboration with GGGI as a delivery partner, solicited funding from the GCF NAP Readiness Project. • She briefly highlighted the project principles: <ul style="list-style-type: none"> ✓ Participation, ✓ Coherent interventions, ✓ Stakeholder engagement, ✓ Gender responsive, ✓ Inclusion and partnership
Ethiopia's CRGE, NDC and CRGE M&E system	Mensur Dessie Nuri, Director, MEAs Negotiation Coordination & A/DG, Climate Change Response, EPA	<ul style="list-style-type: none"> • Mensur has presented <ul style="list-style-type: none"> ✓ National Context of Ethiopia ✓ Climate Resilient Green Economy (CRGE) strategy ✓ Ethiopia's National Adaptation Plan (NAP-ETH) ✓ Ethiopia's Updated NDC ✓ CRGE M&E System and the existing gaps ✓ Conclusion & Way forward • Gaps/Challenges for CRGE M&E system <ul style="list-style-type: none"> ✓ Incomplete Data (half of 2018 + 2019-21) ✓ Adaptation indicators and Data are not well incorporated ✓ The indicators need refinement to align with the new developments (the 10 YDP, Updated NDC) ✓ Many of the indicators are annual based- limits ineffectiveness from users ✓ System does not support Querying and Reporting, and IP based rather than Domain ✓ Limitation in awareness and knowledge to operate the system though sectoral focal points have formally assigned for the purpose
Discussion (Question & Answer)	Moderated by Ababu Anage, Climate Change Specialist, UNDP	<ul style="list-style-type: none"> • During the discussion session a discussion took place on the presentations and other programme's implementation-related issues and few participation and budget related questions were raised by the participants, and properly addressed by SCALA team members. • Finally, the workshop participants are agreed upon to implement the program in well integrated and ownership spirit at all.
Next Steps and Way Forward	Yibeltal (FAO)	<ul style="list-style-type: none"> ✓ The inception workshop delivered the following way forward: • The proposed work plan of the programme was discussed and validated.



Scaling up climate ambition on land use and agriculture through NDC and NAPs (SCALA)

Activities	Responsible Person	Major points /remarks/reflections
		<ul style="list-style-type: none">• Roles and responsibilities of stakeholders were identified, and the following way forward agreed upon:<ul style="list-style-type: none">✓ Incorporate comments (improve integrations of stakeholders during implementations of the program) finalize work plan and share for stakeholders.✓ Establish Programme Steering Committee.✓ Use climate related documents relevant to SCALA.✓ Continue consultation with all relevant stakeholders at federal and regional levels during implementation.✓ Implement the programme as per the work plan.



A3.4 LIST OF PRESENTATIONS MADE IN THE INCEPTION WORKSHOP



SCALA Global Programme

Samuel Tumwesigye & Krystal Crumpler, UNDP and FAO Global SCALA Team



The Global Situation – Urgency to Act

- **Crisis:** Current & future climate impacts are real: are heavily impacting ecosystems, agri-food systems & livelihoods
- **SOFI Report:** around 660 million people may still face hunger in 2030. One of the drivers is climate change
- **Covid-19:** 83 - 132 million additional people will experience food insecurity as a direct result of the pandemic
- **IPCC:** calls on immediate, rapid and large-scale reductions in greenhouse gas emissions, otherwise limiting warming to close to 1.5°C or even 2°C will be beyond our reach.
- **Ecosystem degradation/Biodiversity loss:** significant adaptive capacities will be required even under ambitious emissions reduction.





Scaling up climate ambition on land use and agriculture through NDC and NAPs (SCALA)

SCALING UP CLIMATE AMBITION ON LAND-USE AND AGRICULTURE THROUGH NDCs AND NAPs SCALA PROGRAMME



Goal

Support transformative climate action in the land-use and agriculture sectors to reduce GHG emissions and/or enhance removals, as well as strengthen resilience and adaptive capacity to climate change in participant countries.

BARRIERS TO SCALING UP CLIMATE ACTION

Limited generation and application of information to identify transformative climate actions

Insufficient coordination and capacity for cross-sectoral planning and implementation of climate actions

Low level of integration of NDC and NAP priorities into national planning and budgeting processes

Lack of country-level adaptation and mitigation information systems for M&E and MRV



BARRIERS TO SCALING UP CLIMATE ACTION



Gender inequality and social exclusion in climate and agriculture decision-making



Insufficient private sector engagement in defining and implementing NDCs and NAPs



Insufficient identification of investments among NDC and NAP priorities and inadequate public/private finance

Insufficient ambition and implementation of climate action in land use and agriculture as articulated in NDCs and NAPs to meet adaptation and mitigation goals due to multiple barriers



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SCALA'S
premise





Cross-cutting issues

- **Whole-of-government** approaches through purposive multi-stakeholder engagement.
- **Inclusion** by encouraging collaboration with civil society; the private sector; research and academia.
- **Women's empowerment and gender equality** by reducing barriers to women's participation in decision making and in access to resources.
- **Private sector engagement** through promoting public-private collaboration, addressing barriers and catalyzing private investment.
- **Capacity development** at individual, organizational and enabling environment levels.
- **Ongoing COVID-19 pandemic's** impacts by emphasizing the interconnected role of food, agriculture and land-use to foster more resilient recovery.



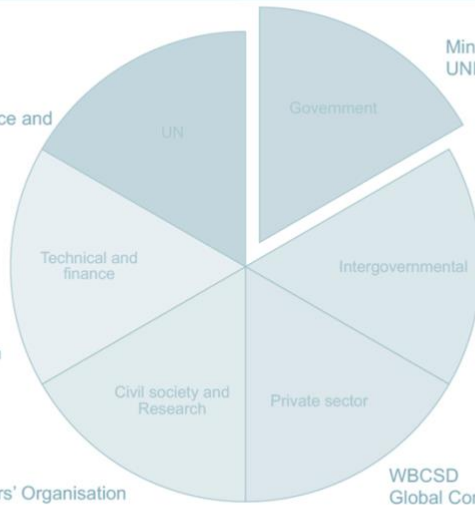


Engagement with Partners

UNDP Climate Promise
 UNDP NDC Support Programme
 UNDP's Green Commodities Programme
 FAO Earth Map
 FAO-EU Forest Law Enforcement, Governance and Trade (FLEGT)
 FAO Hand in Hand Initiative

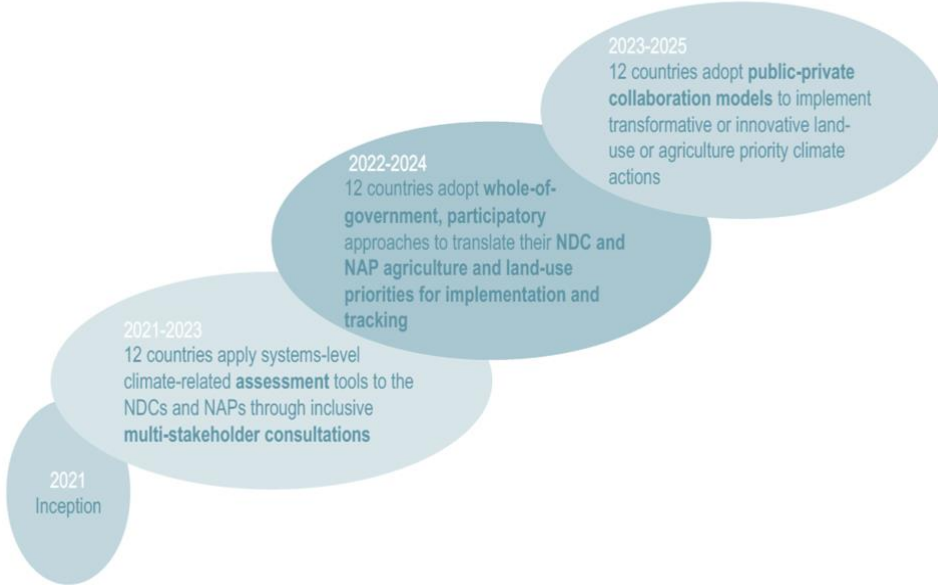
NDC Partnership
 NDC-IKI Cluster Partners
 NAP Global Network
 Global Center on Adaptation

World Farmers' Organisation
 CGIAR
 National universities



Timeline

2021	2022	2023	2024	2025
------	------	------	------	------





Scaling up climate ambition on land use and agriculture through NDC and NAPs (SCALA)



Systems to be focused on for SCALA implementation in other countries

THANK YOU

www.adaptation-undp.org/scala
www.fao.org/in-action/scala



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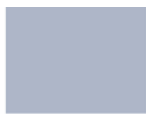


SCALA Programme Work-Plan

Ethiopia Inception Workshop

Berhanu Assefa

Elilly International Hotel, Addis Ababa 28/01/2022



ETHIOPIA'S NDC AND NAP

Synergy of SCALA with Ethiopia'NAP & NDC

- Ethiopia remains committed to an ambitious contribution towards the Paris Agreements goal.
- It formulated NAP in 2017 and update NDC in 2021.
- Updated NDC included both mitigation and adaptation components.
- ✓ **Mitigation:** NDC represents a clear progression in ambition with 68.8% emission reduction target by 2030 from BAU scenario.
- ✓ **Adaptation:** NDC and NAPs have identified 40 and 18 adaptation priority options respectively.
- **SCALA Ethiopia** is built on updated NDC and NAP to contribute for the implementation of NAP and NDC priority climate actions in land-use and agriculture.



- Health
- Agriculture
- Forestry
- Land use & NRM
- Water
- Energy
- Transport
- Urban
- Climate Services & DRR

Number of adaptation interventions per sector



SCALA PROGRAMME BASELINE

Approach used to conduct baseline survey and transformative systems:

- Reviewing secondary documents (Revised Agriculture Policy, NDC, NAP, Agr.CR Strategy, CSA roadmap, CSA scoping study, 10 years plans...)
- Sharing questionnaire and discussion with stakeholders from (MoA, EFCCC/EPA).

I. Gaps identified:

- ✓ Limited implementation capacity at all level;
- ✓ Weak integration among climate actors; and
- ✓ Limited resource and information management systems (MRV, M&E)

II. Transformative systems and climate actions identified (CARM)

Transformative Systems	Priority Climate Actions
Landscape	Enhance integrated watershed management
Value chain	Enhance irrigation performance
	Improve rangeland & pastureland management integrated with small ruminants

OUTPUT 1.1: Evidence Base for Implementation of Transformative Climate Actions in Land-use and Agriculture Strengthened

WORKPLAN

Activity	Sub-Activity	Lead	2021	2022
			Q4	Q1
▪ 1.1.1: Conduct participatory technical reviews of NDC & NAP to identify priority climate actions in land-use and agriculture	• Conduct multi stakeholder consultation & validation	UNDP		
▪ 1.1.2: Conduct participatory systems-level assessments to define evidence-based transformative & inclusive implementation options	• Reviewing adaptation & mitigation options to support imp. NAP & NDC	FAO		





OUTPUT 1.1 – Evidence Base for Implementation Cont’d...

WORKPLAN

Activity	Sub-Activity	Lead	2022				2023		
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3
▪ 1.1.2: Cont'd	• Develop methodology & model for systems-level assessment	FAO							
	• Undertake systems-level assessment for selected land scape & livelihood systems	FAO							
	• Conduct a gender sensitive analysis for selected value chains	FAO							
	• Develop evidence-based implementation plan for prioritized actions	FAO							



OUTPUT 2.1 - NDC and NAP Priorities for Land-use and Agriculture Enhanced and Integrated into Sectoral Planning and Budgeting

WORKPLAN

Activity	Sub-Activity	Lead	2022				2023			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
▪ 2.1.1: Strengthen multi-stakeholder coordination & institutional capacities for the integration of NDC & NAP priorities in LU & Agr. policies, plans & budgets	• Identification of barriers in the enabling environment	UNDP								
	• Organize trainings (Gender-responsive, MRV, M&E)	UNDP								
	• Setting up a climate budget tagging system	UNDP								





OUTPUT 2.1 - NDC and NAP Priorities Cont'd...

WORKPLAN

Activity	Sub-Activity	Lead	2022			
			Q 1	Q 2	Q 3	Q 4
<ul style="list-style-type: none"> 2.1.2: Strengthen the existing MRV & M&E systems at national level for monitoring & reporting in regard to mitigation & adaptation in land-use & agriculture, including collection of gender disaggregated data 	<ul style="list-style-type: none"> Review capacity gaps & needs 	FAO				
	<ul style="list-style-type: none"> Organize trainings on (MRV & M&E systems) 	FAO				
	<ul style="list-style-type: none"> Develop & implement MRV & M&E system improvement plans 	FAO				



OUTPUT 2.1 - NDC and NAP Priorities Cont'd...

WORKPLAN

Activity	Sub-Activity	Lead	2022				2023			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
<ul style="list-style-type: none"> 2.1.3: Enhance NDC & NAP by integrating transformative & inclusive land-use & agriculture priorities 	<ul style="list-style-type: none"> Organize multi-stakeholder workshops & consultations 	UNDP								
	<ul style="list-style-type: none"> Undertaking specific assessments on NAP's implementation gaps identified 	UNDP								





Output 3.1- Enabling Environment and Incentives Enhanced for Private sector Engagement in NDCs and NAPs Implementation

WORKPLAN

Activity	Sub-Activity	Lead	2023	2024		
			Q4	Q 1	Q 2	Q 3
<ul style="list-style-type: none"> 3.1.1: Identify policy & financial de-risking measures & business opportunities 	<ul style="list-style-type: none"> Identify & appraise business opportunities for transformative climate actions 	UNDP				
	<ul style="list-style-type: none"> Organize public-private sector discussions to identify risks & barriers to invest for transformative climate actions 	UNDP				



Output 3.1 - Enabling Environment Cont'd...

WORKPLAN

Activity	Sub-Activity	Lead	2024	
			Q 3	Q 4
<ul style="list-style-type: none"> 3.1.2: Develop project concept notes to leverage investment for transformative & inclusive actions in partnership with the private sector 	<ul style="list-style-type: none"> Develop project concept notes to scale up gender-responsive & inclusive actions 	FAO		
	<ul style="list-style-type: none"> Develop project concept notes to scale up gender-responsive & inclusive climate actions 	UNDP		





Scaling up climate ambition on land use and agriculture through NDC and NAPs (SCALA)

THANK YOU

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based on a decision of the German Bundestag



Overview of NAP GCF Readiness Project

January 2021
Elilly International Hotel , Bisheftu



Outline of the Presentation

- Background and Context
- Overview of NAP GCF Readiness project



1. Background

- Ethiopia is one of the countries seriously affected by climate change induced impacts such as frequent drought, flood and other climate hazards;
- In 2011, the government declared its domestic commitment by adopting the Climate Resilient and Green Economic (CRGE) strategy;
- Established the CRGE Facility in 2013 and other Institutional structures to achieve the CRGE Vision
- Ethiopia has also submitted one of the most ambitious and “2oC compatible” Nationally Determined Contribution to the UNFCCC, which aims at a combined (conditional and unconditional) emission reduction target of 68.8% by 2030 from the Business as Usual Trajectory.
- **More importantly, climate change adaptation has received adequate treatment and focus in the updated NDC.**
- Building disaster, climate resilient and green economy is one of the strategic pillars of Ethiopia's perspective development for the period 2021-2030;

3



...Background

- The Government of Ethiopia has taken action to advance on climate change adaptation by developing its National Adaptation Plan (NAP-ETH) in 2017;
- NAP-ETH provides an overarching framework for Ethiopia's adaptation, including 18 adaptation options which address key vulnerabilities and five (5) strategic priorities;
- Gender Analysis and implementation road map for NAP conducted;
- NAP Eth is already integrated in the ten-year DP and 40 adaptation actions are included in the updated NDC.

4



...Background

- Addressing the NAP-ETH strategic priorities remains critical for realizing Ethiopia's CRGE vision.;
- Accordingly In line with NAP-ETH, the NDA in EPA in collaboration with GGGI as a delivery partner, solicited funding from the GCF NAP Readiness Project entitled *"Building Capacity to Facilitate the Integration of the National Adaptation Planning Process in Ethiopia"*.
- Started in 1st Q 2021 and expected to end in 1stQ 2024;
- The project budget is USD 2,159,333.

3



Project Principles

- Participation,
- Coherent interventions,
- Stakeholder engagement,
- Gender responsive,
- Inclusion and partnership,

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3. Alignment of NAP Readiness Project with NAP-ETH

NAP-ETH Strategic Priorities	NAP GCF Readiness Project Outcomes
<p>> Strategic priority 1 Mainstreaming Climate Change Adaptation into development policies, plans and strategies,</p>	<p>> Outcome 1 Support adaptation planning governance and coordination mechanism,</p>
<p>> Strategic priority 2 Build the long-term capacities of institutional structures involved in NAP-ETH,</p>	<p>> Outcome 2 Strengthen climate vulnerability and adaptation investment rationale,</p>
<p>> Strategic priority 3 Improving the knowledge management system for NAP-ETH,</p>	<p>> Outcome 3 Enhance adaptation knowledge management, information sharing and communication,</p>
<p>> Strategic priority 4 Establish effective and sustainable funding mechanisms,</p>	<p>> Outcome 4 Integration of adaptation into the country's overall development policy and strategy pursued,</p>
<p>> Strategic priority 5 Advancing adaptation research and development in the area of climate adaptation,</p>	<p>> Outcome 5 Adaptation finance strategy developed,</p>
	<p>> Outcome 6 Develop and strengthen adaptation monitoring, evaluation, and learning system,</p>



Outcome 1. Adaptation planning governance coordination mechanism supported

Deliverable

- > Establishing project steering committee
- > NAP-ETH coordination mechanism operational guidelines revised/updated;
- > Updated report on stakeholder analysis and map utilized by key NAP-ETH stakeholders;
- > Stakeholders in key regions and woredas (~50% women) enhanced familiarization on NAP-ETH coordination mechanism and strengthened support from local authorities;
- > Guidelines on adaptation policy integration incl. ESS and gender considerations developed;
- > Stakeholders (with ~50% women) from key regions/woredas consulted and inputs considered in guidelines finalization and capacity on gender mainstreaming strengthened





Outcome 2. Climate vulnerability and adaptation investment rationale strengthened

Deliverables

- Establish multi-sectoral and multi-hazard climate change adaptation information database portal;
- Train technical staff (national/subnational, ~50% women) from NAP-ETH executing agencies on climate information and scenario building ;
- Compile report on NAP-ETH executing agencies' gaps and needs assessment as an input to integrating climate information in their core development planning.
- We are committed to support NFCS implementation in particular in the area of knowledge management including research and capacity building and also strengthening climate services governance in policy framework and coordination



Outcome 3. Adaptation information sharing, and communication, and knowledge management, and communication

Deliverable

- Develop and utilize communication strategy for adaptation actions for NAP-ETH executing agencies use - identifying audiences, activities, messages and products,
- Design and operationalize a platform (including online) as communication tool (under EPA /NDA management);
- At least two (2) information sharing platforms designed/updated and become functional, at least 20% of citizens access to climate information i.e. internet users, radio/television users etc;
- Relevant stakeholders (~50% women) fully familiarized on utilization of information sharing platforms designed/updated,
- Developed Knowledge management framework for adaptation research initiatives (with defined management structure);
- PSC endorsed and adopted selection criteria to appoint adaptation 'Champions' utilized;
- Document best practices and organize event for knowledge sharing;



Outcome 4. Integration of adaptation into the country's overall development policy and strategy pursued

Deliverable

- Roadmap of the integration process will be developed, endorsed and adopted by NAP-ETH stakeholders of targeted regions;
- Mapping of strategic options for adaptation integration endorsed and utilized by NAP-ETH executing ministries and other relevant stakeholders;
- Integrating adaptation into their policies and plans proposed and approved by the PSC;
- Developing climate smart plan in four woredas .

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Outcome 5. Adaptation finance strategy developed

Deliverable

- Capacity building of NAP-ETH ministries and relevant stakeholders on updating and implementing existing guidelines on adaptation based resource allocation and disbursement
- Resource mobilization roadmap developed
- Training course designed in a linked manner with GCF country program process
- At least 3 finalized PCNs submitted to GCF and/or additional financing institutions for review and feedback.
- knowledge on basics of negotiating and accessing and adaptation finance.



Outcome 6. Monitoring, evaluation, and learning capacity and system developed

Deliverable

- M&E tools for the NAP-ETH updated and endorsed by PSC;
- PSC endorsed comprehensive and scaled-up M&E framework;
- Improved capacity on M&E tools and RBM ;
- Shared lessons and best practices of NAP-ETH integration process featured on national/regional/international platforms/networks (e.g. UNFCCC).

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Thank You



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Federal Democratic Republic of Ethiopia

Environmental Protection Authority (EPA)



Ethiopia's CRGE, NDC and CRGE M&E system

Mensur Dessie Nuri,
Director, MEAs Negotiation Coordination & A/DG, Climate Change Response, EPA

Addis Ababa, Ethiopia

Jan 28, 2022



Contents



- National Context of Ethiopia
- Climate Resilient Green Economy (CRGE) strategy
- Ethiopia's National Adaptation Plan (NAP-ETH)
- Ethiopia's Updated NDC
- CRGE M&E System and the existing gaps
- Conclusion & Way forward



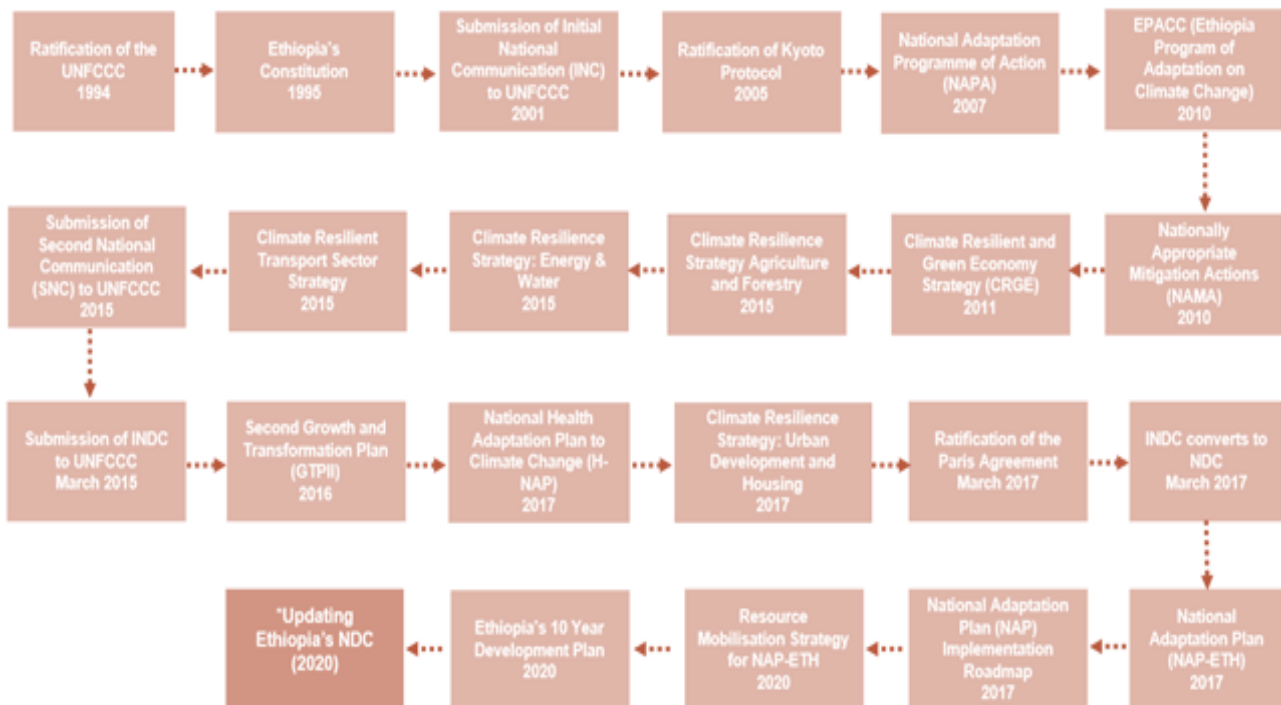
National Context



- Climate change impacted Ethiopia exists over the last 50 years.
- Extreme weather events are common, especially drought and flood
- The impact of the CC is being experienced in almost all sectors with different intensity
- ETHIOPIA is highly vulnerable to the impacts of climate change.
 - It's due to the country's high dependence on rain-fed agriculture and natural resources, as well as its low adaptive capacity



Laws, Strategies, tools, and instruments for climate change in Ethiopia





The CRGE



CRGE mainstreaming guideline is developed

CRGE has 4 pillars

Modernize the Agriculture sector and concomitantly reduce emissions

Promote protection and re-establishment of forests

Expansion of Renewable energy sources

Leapfrogging to modern and energy efficient technologies in transport, building and industry sectors

Envisioned for: building middle income economy

- Reducing GHG emissions (mitigation)
 - climate resilience (adaptation)
- About 104.99 MtCO₂e reduced
- Adaptation/resilience actions (water, agri, land)
- International leadership & climate diplomacy

CRGE Implementation Progress assessment (2011-2019) - Recommendations



Policy and Strategy Revisions

- Fresh national & sectoral GHG inventory, adhering to 2006 IPCC guidelines
- Fresh GHG growth projections (nationally and by sector) b/n 2020 & 2030
- Revise the strategy & the NDC to reflect new baseline, new 2030 targets, updated mitigation and adaptation priorities and interventions

Project design and structuring

- Endure that future climate change interventions are explicitly to respond to an established climate change-linked baseline, and to intentionally target climate related outcomes

Knowledge and information management

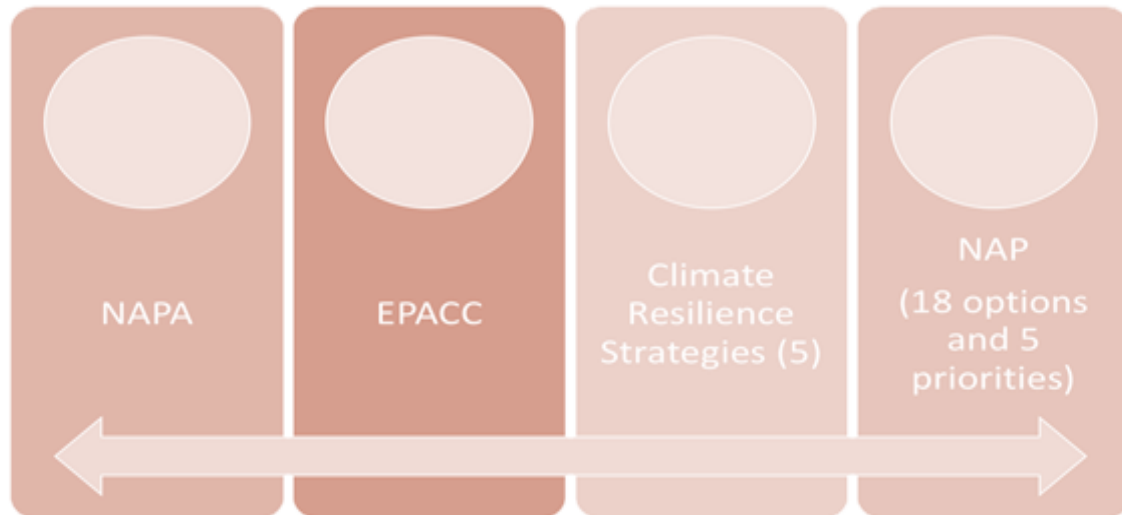
- Establish a user-friendly, reliable, well-designed and organized centralized information and knowledge management system at the CRGE Facility
- Require each sector's CRGE focal point to maintain an online, dual-platform information and knowledge management system

Climate finance budgeting and tracking

- Design and put in place a public expenditure review framework
- Institute a "coding" system for Climate change mitigation, adaptation, and Cross-cutting



Adaptation Strategies/plans



Ethiopia's Updated NDC...Mitigation



Sector	BAU emission projection (Mt CO ₂ e)		Unconditional mitigation potential (Mt CO ₂ e) (Mt CO ₂ e)		Conditional mitigation potential (incl. unconditional) (Mt CO ₂ e) (incl. unconditional) (Mt CO ₂ e)	
	2025	2030	2025	2030	2025	2030
Industry	12.7	26.1	-0.2	-1.2	2.5	3.5
Energy	14.4	20.0	1.7	5.1	4.0	10.5
LUCF	133.8	140.2	21.2	48.4	112.3	240.1
Livestock	169.5	194.8	0.8	1.8	6.7	14.8
Managed Soils	8.1	11.0	0.0	0.1	0.1	0.3
Waste	10.3	11.5	0.9	2.0	4.3	8.6
TOTAL (Mt CO₂e)	348.8	403.5	24.5	56.2	129.9	277.7

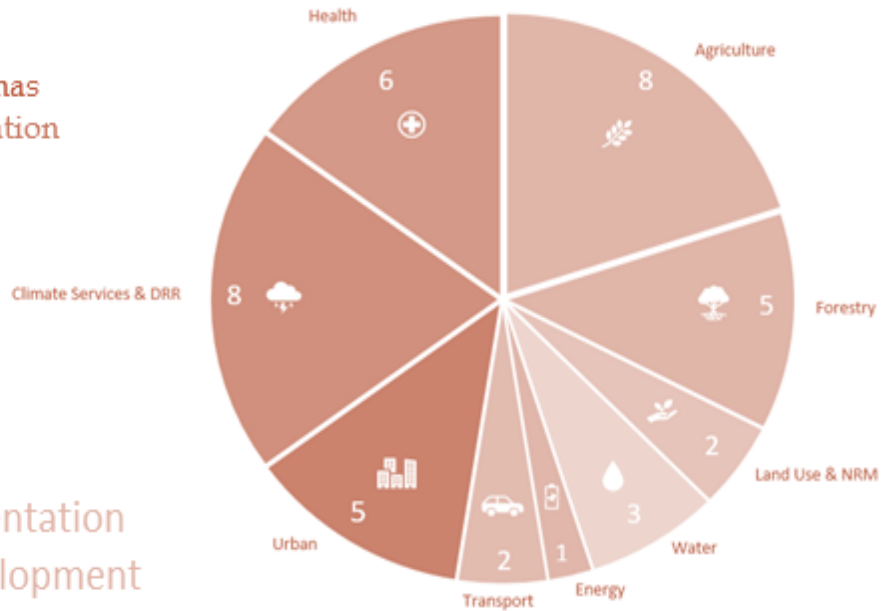
Eth. Updated NDC targeted to reduce 68.8% GHG emissions



Ethiopia's Updated NDC...Adaptation



The updated NDC has identified 40 adaptation interventions



N.B. NDC Implementation Plan is under development



Updated NDC...Means of Implementation



Climate Finance: USD 316 billion, mitigation (USD 275.5 billion) and adaptation (USD 40.5 billion)



Of the total financing needs is Unconditional=\$63.2Billion Raised Domestically	Of the total Financing needs is Conditional=\$252.8Billion. Depending on International Climate Finance
---	--



The CRGE M&E system



- CRGE-ME system is a web based tool used to track information for selected CRGE indicators (~87 core indicators) for 8 sectors + cross cutting
- Operationalizing the baseline data for selected CRGE indicators through the formulation of database.
- Dynamic and user-friendly indicator performance reference sheet
- Contains indicator data from 2015 to 2018



Gaps/Challenges for CRGE M&E system



- Incomplete Data (half of 2018 + 2019-21)
- Adaptation indicators and Data are not well incorporated
- The indicators need refinement to align with the new developments (the 10 YDP, Updated NDC)
- Many of the indicators are annual based- limits effectiveness from users
- System does not support Querying and Reporting, and also IP based rather than Domain
- Limitation in awareness and knowledge to operate the system though sectoral focal points have formally assigned for the purpose



Conclusion & Way forward



While:

- GoE has developed key policies and guidelines that provides institutional guidance and sets up frameworks for effective operations, & provide predictability and consistency to its activities,
- sectors have set up dedicated units and established smooth relationship with the national coordinating entities,
- it appears that some of these guidance documents have yet to be fully translated into implementation or difficult to report back at all levels due to:
 - Shortage of finance and other means of implementation
 - Lack of knowledge & information management system though efforts are made manually
 - Lack of robust MRV & M&E system and operationalization of the existing ones
 - limited coordination among different climate actors (public & non-state actors)



Thank you for your kind attention!



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საქართველოს
MINISTRY OF AGRICULTURE

based on a decision of the German Bundestag



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Information

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