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SCALING UP CLIMATE AMBITION ON LAND USE AND AGRICULTURE THROUGH NDCs AND NAPs (SCALA)

Inception Report | NEPAL

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This report was prepared by Ms. Shalu Adhikari (SCALA Nepal focal person, FAO) and Ms. Rassu Manandhar (Project Coordinator, UNDP) of the Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs (SCALA). The report was reviewed and supported by the regional backstopping team (Janek Toepper, FAO and Krib Sitathani, UNDP).

The report summarizes the inception phase and launch of the SCALA Programme in Nepal, which comprised multi-stakeholder consultations, technical meetings, and the inception workshop. The SCALA team is grateful for all those who cooperated, contributed, and provided information to conclude the SCALA inception phase.

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ABBREVIATIONS AND ACRONYMS

ADS	Agricultural Development Strategy
AEC	Agro Enterprise Centre
AFAOR	Assistant FAO Representative
AFOLU	agriculture, forestry and other land use
AKC	Agriculture Knowledge Center
BMUV	German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection
CAR	Climate Action Review
CBO	community-based organization
CSA	climate-smart agriculture
CSO	civil society organization
DG	Director General
ED	Executive Director
FAO	Food and Agriculture Organization of the United Nations
FAOR	FAO Representative
FNCCI	Federation of Nepalese Chambers of Commerce & Industry
FSFT	Food Safety and Food Technology
GDP	gross domestic product
GHG	greenhouse gas
IEO	Independent Evaluation Office
IKI	International Climate Initiative
LDC	least developed country

M&E	monitoring & evaluation
MoALD	Ministry of Agriculture and Livestock Development
MoF	Ministry of Finance
MoFE	Ministry of Forests and Environment
MTR	mid-term review
MuAN	Municipal Association of Nepal
NAP	National Adaptation Plan
NAP-Ag	Integrating Agriculture in National Adaptation Plans
NARC	National Agricultural Research Council
NARMIN	National Association of Rural Municipalities
NDC	nationally determined contribution
NGO	non-governmental organization
NPC	National Planning Commission
OED	Office of Evaluation
PC4	Provincial Climate Change Coordination Committees
PMAP-PIU	Prime Minister Agriculture Modernization Project
PSC	Project Steering Committee
SCALA	Scaling up Climate Ambition on Land Use and Agriculture through nationally determined contributions (NDCs) and National Adaptation Plans (NAPs)
SLA	system-level assessment
TE	terminal evaluation
TWC	technical working committee
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

1. INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report was prepared as part of the Scaling up Climate Ambition on Land Use and Agriculture through nationally determined contributions (NDCs) and National Adaptation Plans (NAPs) (SCALA) programme in Nepal and is aimed at a national and global audience of stakeholders. The main purpose of the report is to introduce the SCALA programme and to provide an overview of the preparatory steps for project implementation carried out during the inception phase. Furthermore, the workplan for the remainder of the implementation period is presented. This report is intended to mark a milestone that concludes the inception phase and commences implementation of project activities.

1.2 OVERVIEW OF THE GLOBAL PROGRAMME

The SCALA Support Programme on is a multi-year initiative funded by Germany's Federal Ministry for the Environment, Nature Conservation, Nuclear and Consumer Protection (BMUV) through its International Climate Initiative (IKI). The programme is designed to support transformative climate actions in the land use and agriculture sectors to reduce greenhouse gas (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 accelerate the transformative climate action in agriculture and other land use sectors. The project is implemented to achieve the three following 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.

The SCALA programme supports **12 countries in Africa, Asia, and Latin America** (Argentina, Cambodia, Colombia, Costa Rica, Côte d'Ivoire, Egypt, Ethiopia, Mongolia, Nepal, Senegal, Thailand, and Uganda). The programme is implemented directly with key government stakeholders (such as the 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 their 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

The project team carried out various analytical and planning steps during the inception phase, which were complemented by key consultation and validation meetings with the focal ministry and a wider set of national stakeholders. In addition, the team conducted a review of policy documents and literature and consulted stakeholders. In sum, the team produced the following inception deliverables:

1. **Baseline survey**: based on desk review and a stocktake of the baseline situation, this provided a snapshot of the status quo and pre-existing initiatives.
2. **CAR matrix**: reference to Chapter 3.
3. **Theory of change**: reference to Section 4.2.

Beyond continuous engagement with the project focal point at the Ministry of Agriculture and Livestock Development (MoALD) in multiple bilateral planning meetings, key consultation and validation milestones included the following:

- **Project inception workshop** held on 21 December 2022 (see Section 4.1).
- **Technical working committee (TWC)** meetings: A TWC was established to provide a technical sounding board to the project team, with a first meeting held for validation of the workplan in February 2023 (see Annex 4).

The duration of the inception phase exceeded its anticipated timing. This was largely related to the need to await the signing of the project document in April 2022, and the appointment of a project focal point in August 2022.

2. CONTEXT

2.1 COUNTRY PROFILE

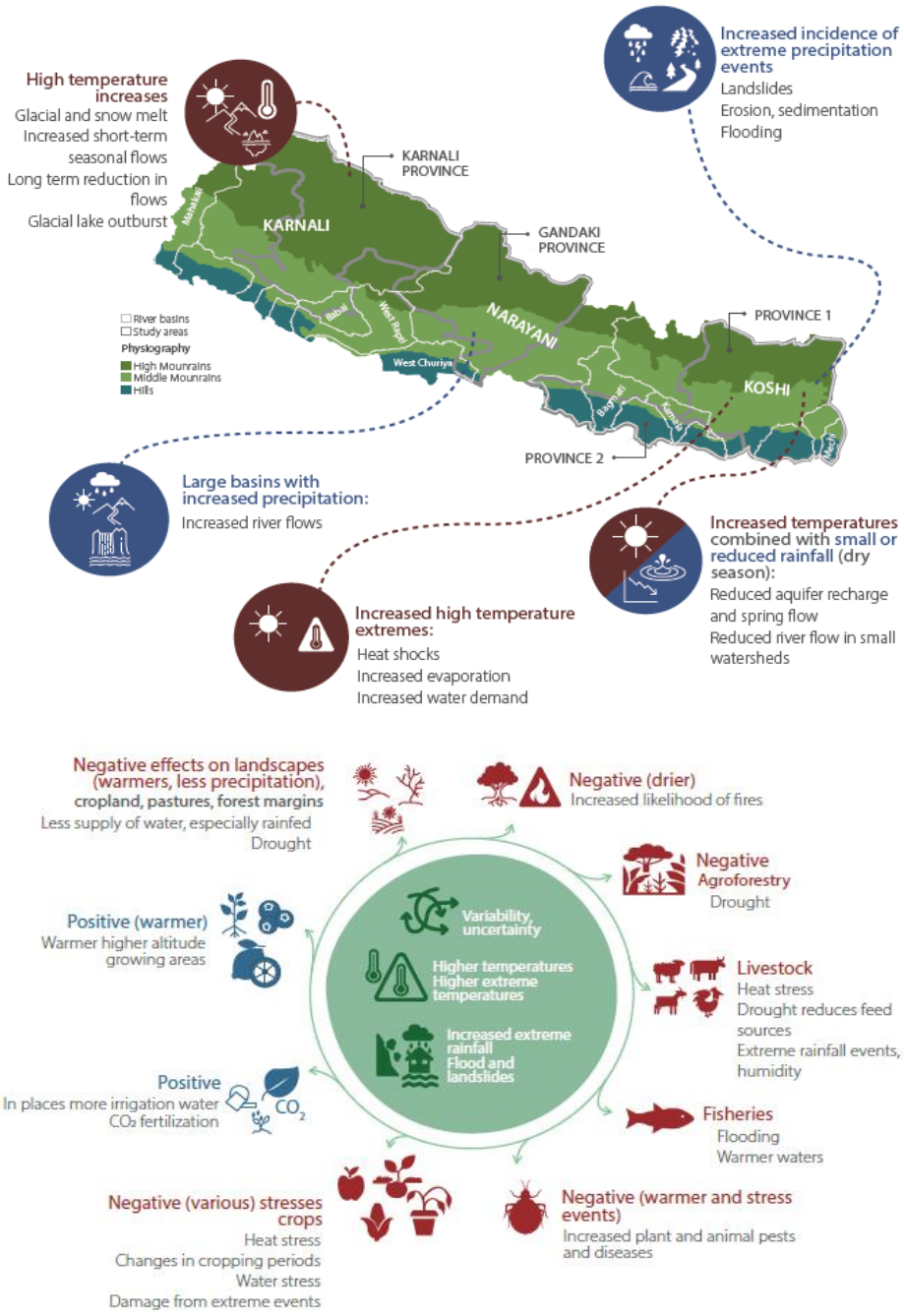
Nepal has seen significant development progress in recent decades, allowing the country to attain lower-middle-income status in 2020. Consequently, the country is scheduled to graduate from least developed country (LDC) status in 2026. Efforts to distribute benefits from economic growth have resulted in an estimated decline of multidimensional poverty from 30.1 percent in 2014 to 17.4 percent in 2019 (World Bank, 2022). *Agriculture contributes 33percent percent to national GDP and provides employment for up to 64percent of the workforce (CIAT et al., 2017; ILO, 2021). In terms of food security, Nepal ranks 74th out of 113 countries in the Global Food Security Index (EIU, 2022).* Climate change threatens to undermine the historical socioeconomic achievements of Nepal; with millions of Nepalese at risk from climate impacts that include reductions in agricultural production, food insecurity, damaged infrastructure, and reduced water supply (MoHA, 2017).

2.2 CLIMATE CHANGE IMPACTS, RISKS AND VULNERABILITIES

Observed changes in climate have resulted in increased stress for the agricultural sector. Nepal's climate is influenced by its varied topography, ranging from subtropical in the south to permafrost in the high mountains in the north. The maximum temperature in Nepal increased approximately at a rate of 0.05 °C per year since the 1970s, with trends in precipitation being less distinct (Climate-Smart Agriculture Investment Plan (CSAIP) and World Bank, 2021). In terms of extreme event impacts, the government's vulnerability and risk assessment for Agriculture and Food Security (MoFE, 2021) identifies droughts and floods as the most critical climate-related hazards, with droughts accounting for 38.9 percent and floods for 23.2 percent of all loss caused by weather and climate-related events.

These trends are expected to further intensify, and to continue to pose challenges for the agricultural sector in the future. Figure 1a illustrates projected regional trends in temperature and precipitation for Nepal. As illustrated by figure 1b, negative effects on agricultural systems resulting from these changes in climate are expected to outweigh positive ones. The government's Vulnerability and Risk Assessment (MoFE 2021) highlights the long-term impact of climate change on agriculture and food security as inevitable. The direct economic cost of climate variability in agriculture sector is estimated to be 1.5-2percent of the country's GDP today, and a further drop in agricultural GDP of 2-4percent associated with the negative effects of climate change is estimated to require USD 2.4 billion for adaptation by 2030 (MoFE, 2021).

Figure 1a (top) : Summary of key expected future climate trends and extreme events and 1b (bottom): Summary of likely effects of climate change expected on agriculture systems in Nepal



Source: **World Bank.** 2021. *Nepal Climate-Smart Agriculture Investment Plan*. Washington DC. World Bank Group.

2.3 CLIMATE CHANGE PLANNING AND IMPLEMENTATION

2.3.1 Institutional arrangements

The Ministry of Forests and Environment (MoFE) is the focal Ministry for international environmental conventions including the United Nations Framework Convention on Climate Change (UNFCCC). Sectoral ministries including the MoALD are responsible for the implementation of sectoral plans and achievement of related targets. The (yet to be endorsed) NDC implementation plan further stipulates that the lead ministries are encouraged to develop an annual plan based on the NDC Implementation Plan, allocating resources, implementing the plan, coordinating with relevant agencies and stakeholders, monitoring and reviewing the progress of the plan, and reporting the achievements and lessons learned.

In terms of coordination between line ministries on climate change matters, the **National Climate Change Policy (2019)** established an **Inter-ministerial climate change coordination committee (IMCCCC)**. This Committee was constituted in February 2020 and is functional. As per the country's NDC implementation plan, this committee is also in charge of reviewing the progress of NDC implementation twice a year to ensure that the activities are implemented promptly, and targets are met. The MoFE's Climate Change Management Division (CCMD) acts as the Secretariat of the coordinating body to facilitate meetings and consultations, liaise with line ministries, provincial committees, respective ministries, and local government. It is also responsible for reporting the overall achievement of the NDC implementation, as well as reporting to the UNFCCC. Similar coordination bodies exist at the **provincial level,** where Provincial Climate Change Coordination Committees (PC4) have been established to coordinate all activities related to climate change (both mitigation and adaptation), though their function remains limited in scope to date.

2.3.2 Key policies and frameworks

The Government of Nepal has formulated a series of guiding policy documents related to climate change adaptation and mitigation. The following policy and related documents represent the key frameworks and targets:

1. National Climate Change Policy, 2019: The objective is to provide policy guidance to various levels and thematic areas towards developing a resilient society by reducing the risk of climate change impacts. The aims and purpose of this Policy are: to contribute to the socio-economic prosperity of the nation by building a climate resilient society; to enhance climate change adaptation capacity of persons, families, groups and communities vulnerable to, and at risk of climate change; to build resilience of ecosystems that are at risk of adverse impacts of climate change; to promote green economy by adopting the concept of low carbon emission development; to mobilize national and international financial resources for climate change mitigation and adaptation in just manner; to conduct research, make effective technology development and information service delivery related to climate change; to mainstream or integrate climate change issues into policies, strategies, plans and programs at all levels of State and sectoral areas; to mainstream gender equality and social inclusion into climate change mitigation and adaptation programs.
2. Nepal's Second NDC (2020)[1]: Nepal submitted its second NDC to the UNFCCC in 2020. The country's NDC contains a set of reinforced mitigation actions and targets specific to

[1] https://unfccc.int/sites/default/files/NDC/2022-06/Second%20Nationally%20Determined%20Contribution%20%28NDC%29%20-%202020.pdf

Agriculture, Forests and Other Land Use (AFOLU). These include inter alia a commitment to maintain a forest cover of 45percent of the total area, to increase soil organic matter content of agriculture land to reach 3.95percent, and the establishment of 500 climate-smart farms.

3. NAP (2021)[2]: The NAP summary for policymakers was submitted to the UNFCCC in 2021, with the full version of the document pending imminent release. The NAP contains 64 programmes regarding specific sectors of the Climate Change Policy. Among these, there is a list of 9 programmes on agriculture and food security.[3]
4. NDC implementation plan (2022): The plan, presented at COP27 in 2022, is intended to guide the achievement of NDC targets. As such, it contains an AFOLU sector action plan and assigns responsibility for its implementation to the MoALD.

The 'long list' of strategy/plans and related documents relevant to climate change includes the following:

- Nepal's Long-Term Strategy for Net-Zero Emission, 2022
- National Framework on Climate Change Induced Loss and Damage, 2021
- Gender and Climate Change Strategy and Action Plan, 2021
- Climate Change Budget Guideline, 2021
- Local Adaptation Plan of Action (LAPA) Framework, 2019
- National Environmental Policy, 2019
- National Agro-forestry Policy, 2019
- National Forest Policy, 2019
- National REDD+ Strategy, 2018
- Agriculture Development Strategy (2015-2035)

2.3.3 Capacity needs for climate action in land use and agriculture

Climate change risks (as presented above) are being directly observed in different sectors such as water resources, agriculture, infrastructure, forests, and so on, and also felt by farming communities and other stakeholders. Though an elaborate set of policies and institutional frameworks at federal and provincial levels are in place, in some instances the 'bottleneck' for effective climate action in land use and agriculture are institutional and individual capacities to take intended climate actions 'one step further' into implementation. The following list highlights the main institutional and technical capacity needs (among relevant sectoral authorities and technical agencies) for climate change planning and implementation in the land use and agriculture sectors, primarily based on a capacity gap and needs assessment carried out during the NAP preparation (MoFE, 2020):

- There is a need to **enhance technical capacities**, including a focus on vulnerability and adaptation assessments, cost-benefit analysis, and the development of sectoral climate finance plans.

[2] https://unfccc.int/sites/default/files/resource/NAP_Nepal.pdf

[3] 1) Sustainable Agriculture: Food and Nutrition Security and Climate Resilience Health and Hygiene; 2) Commercial Animal Husbandry for Climate Resilient Rural Livelihoods; 3) Development of Insurance and community- and peasant-friendly climate-induced risk sharing model and expansion in both agriculture and livestock; 4) Genetic resource conservation programme for climate resilient agriculture in Nepal; 5) Enhancing agriculture productivity through building climate resilient water management systems; 6) Climate smart transformative collective agriculture promotion in the hills and mountains; 7) Integrated soil and nutrient management for resilient agriculture; 8) Strengthening Climate Services and Agriculture Information Systems; 9) National Capacity Building of Agriculture Institutions and Professionals

- Enhanced capacities to **engage stakeholders and facilitate inclusive planning** and implementation processes; formulate new strategies, policies, and laws; revise existing national policies and plans, including mainstreaming climate change considerations; monitor and evaluate interventions; track GHG emissions and sinks, as well as adaptation needs and progress; and raise awareness and outreach on critical issues, particularly climate change impacts and adaptation needs.
- Need for **best practices for implementing sustainable forest management**, as well as to support afforestation and reforestation interventions to meet the NDC AFOLU targets to maintain 45percent forest cover of Nepal.
- The planning of the NDC-related actions should be informed by rigorous **evidence, data sets and analysis** from the existing GHGs emission sources and sink, costing, potential benefits, and the subsequent identification and prioritization of mitigation options. Nepal needs support on data collection, analysis and use to identify the mitigation options, prioritize them based on the costs (direct costs and other possible indirect costs) and benefits (for example, net mitigation impacts, adaptation co-benefits, social and economic co-benefits).
- As agriculture and climate change pose a set of complex challenges and since climate science is evolving, few robust tools and guidelines relevant to the context of Nepal are available. Nepali institutions hence require **guidance in the form of user-friendly tools and guidelines** such as vulnerability/risk assessment, priority ranking tools, investment process, tracking actions monitoring, evaluation, and measuring, reporting and verification (MRV)/learning frameworks) which can be adapted based on the local context. These tools ought to be shared with stakeholders at the local level, alongside the provision of required skills and institutional capacity building support.

2.4 RELEVANT PROJECTS AND PROGRAMMES

The following are the relevant projects/programmes on climate change, agriculture and land use that are ongoing in Nepal:

- Development of Climate Resilience Livelihood in vulnerable Watersheds of Nepal (LDCF/GEF 6): UNDP
- Building a Resilient Churia Region in Nepal (GCF): FAO
- Catalyzing Ecosystem Restoration for Climate Resilience Natural and Rural livelihoods in degraded forests and rangelands of Nepal (LDCF/GEF 6): UNEP
- Building capacity to advance national adaptation plan in Nepal (GCF): UNEP
- Food and Nutrition Security Enhancement Project (FANSEP) in Nepal (GAFSP): FAO
- Improving climate resilience of vulnerable communities and ecosystems in the Gandaki River Basin, Nepal (GCF): IUCN

3. CLIMATE ACTION REVIEW

This section describes the methodology and steps to use the SCALA Climate Action Review (CAR) Matrix for assessment and prioritization of climate actions in agriculture and land use contained in NDCs and NAPs for the SCALA programme.

3.1 METHODOLOGY

The CAR 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 in order to achieve national climate change adaptation and/or mitigation goals in AFOLU sector.

In Nepal, the preparation and use of the matrix comprised four main steps:

1. **Review of literature**: An extensive review of relevant literature on agriculture, climate change and forestry and relevant policies/strategies/plans/guidelines was done. The most relevant sources, including the documents published by the Ministry of Forests and Environment including the **NDC, NDC Implementation Plan and NAP**, were reviewed to extract targets and activities for the CAR review. The review also included policies and strategies related to gender equality and social inclusion (GESI), governance, and finance. The literature review helped to understand the policy context and provided a guideline for shortlisting actions to be assessed more closely via the CAR matrix from the longlist of all AFOLU actions contained in NDC Implementation Plan and NAP.
2. **Assessing the context**: Several meetings with the MoALD focal person and team were held. This ensured the alignment of actions reviewed via the CAR matrix with political priorities and further narrowed down the shortlist of actions to be reviewed.
3. **Desk assessment of shortlisted climate actions via the CAR matrix:** Shortlisted climate actions were reviewed for their transformative potential by the project team via application of the CAR matrix template (such as an assessment of the climate actions in light of SCALA’s seven dimensions of transformation), and feedback from the regional backstopping team was incorporated.
4. **Stakeholder consultation, validation and feedback**: The MoALD-organized inception workshop on 21st December 2022 (see section 4.1) served to gather feedback on the CAR matrix from stakeholders and institutions present at the workshop.

Feedback and stakeholder inputs received at the latter occasion (4) served to move from the CAR assessment exercise to the preparation of an actionable workplan (see section 4.3). The CAR matrix hence served as a useful intermediary step for workplan preparation. This process is described in more detail below.

3.2. ANALYSIS OF CLIMATE ACTION WITH TRANSFORMATIVE POTENTIAL

Following the approach described in section 3.1, the following adaptation and mitigation actions (based on the NDC implementation plan and NAP) were shortlisted and assessed via the CAR matrix:

1. Soil and nutrient management for resilient agriculture.
2. Develop and establish climate smart farms.
3. Protect, promote, and support climate resilient indigenous seeds/crops varieties through community seed banks.
4. Prepare guidelines to facilitate integration and scaling up of gender-responsive and socially inclusive climate-smart technologies and practices.

Considering the six dimensions of transformation (climate rationale, systems approach, private sector engagement, gender equality and social inclusion, sustainable development, whole of government and technological innovation), the above actions were scored 7.9, 7.5, 6.5 and 8.5 out of ten points, respectively. As mentioned above and explained in further detail below, CAR results and stakeholder feedback on these informed workplan development. Actions ii., iii., and iv. are reflected in key activities of the workplan (for example, under activity 1.1.1 and 2.1.1, see section 4.3 and Annex 1). CAR matrix action i., on the other hand, was deprioritized based on stakeholder feedback, which also led to the inclusion of additional activities in line with related government targets in the workplan. The CAR matrix hence did help to confirm the transformative potential of the assessed solutions, while leaving flexibility for additional considerations to be made during workplan development. For additional details, the interested reader is referred to Annex 2.

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

As referred to above, the inception workshop on 21 December 2022 marked a milestone during the project inception phase and presented an opportunity for discussion and validation of inception phase outputs.

4.1 INCEPTION WORKSHOP

The overall objective of the inception workshop was to present an overview of the SCALA programme and overall workplan to concerned stakeholders and to solicit input and feedback on the proposed workplan of the project. The inception workshop was attended by 38 participants, including representatives from different stakeholder institutions (MoALD, Department of Livestock Development, Department of Agriculture Development, Federation of Nepalese Chambers of Commerce & Industry (FNCCI), National Planning Commission (NPC), UNDP, FAO, Ministry of Finance (MoF), MoFE). For a full list of participants, please refer to Annex 3.

After the chairing session of the meeting and an introduction of all participants, an overview of the project, workplan, baseline and outcomes of the CAR matrix was presented by the national SCALA coordinator to kick off the workshop. This was followed by the regional perspective on SCALA presented by the global team, as well as discussion and feedback including views on priority systems/areas for the project to focus on SCALA. The inception report agenda can be found in Annex 3.

Outcomes

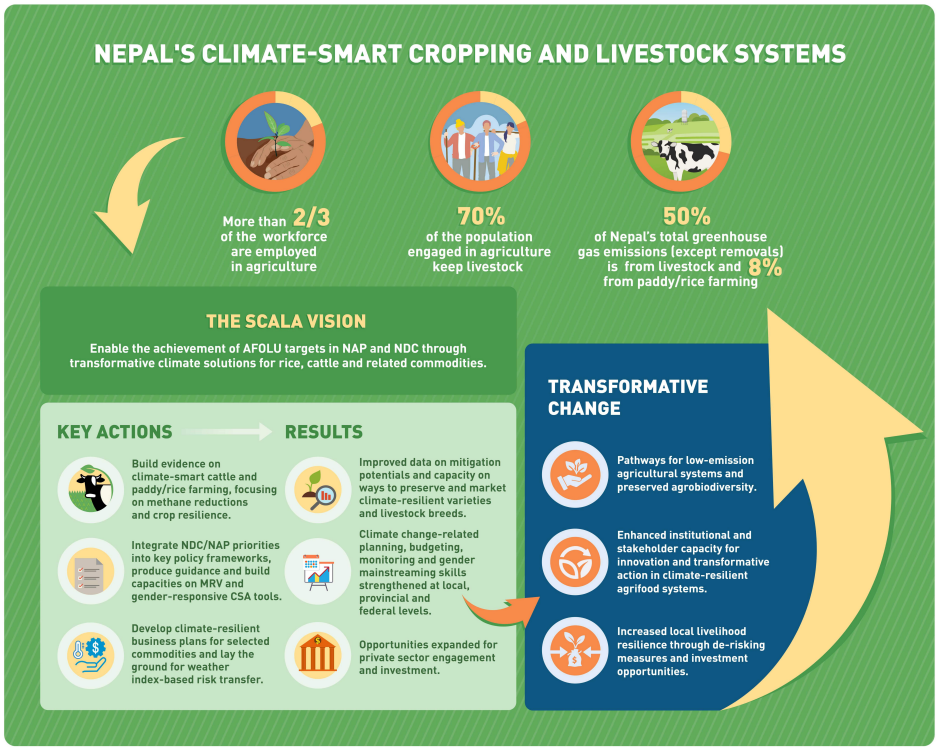
The following items were key outcomes resulting from the inception workshop and subsequent discussions:

- Form a **Project Steering Committee (PSC)** chaired by Secretary of MoALD (Agriculture Development) and finalize the Terms of Reference and PSC Composition (see section 5.2 for detail).
- Form a **Technical Working Committee** chaired by the Joint Secretary of Food Security and Food Technology Division consisting of finalizing the work plan in light of stakeholder views expressed at the inception workshop, sub activities and review technical documents as required for the SCALA programme (see section 5.2 for additional detail).
- Finalize a **two-pager synopsis** of SCALA (both in English and Nepali – see Annex 5).

4.2 THEORY OF TRANSFORMATIVE CHANGE

SCALA Nepal envisions to enable the achievement of actionable (AFOLU) targets in the NDC implementation plan, and the agriculture and food security sector's climate actions in the 2021 NAP through transformative climate solutions for rice, cattle and selected commodities (*vision*). Against the backdrop of the importance of cattle and rice systems to the national diet, economy, emissions profile and farmer vulnerability to climate change (see below), SCALA aims to induce transformative change towards building the resilience of these systems that generates benefits in terms of productivity, emissions reductions and overall adaptation to the changing climate. Three distinct but interlinked outcomes contribute to the fulfillment of this objective (see 4.2.1 to 4.2.3).

Figure 2 : SCALA Nepal simplified Theory of Change

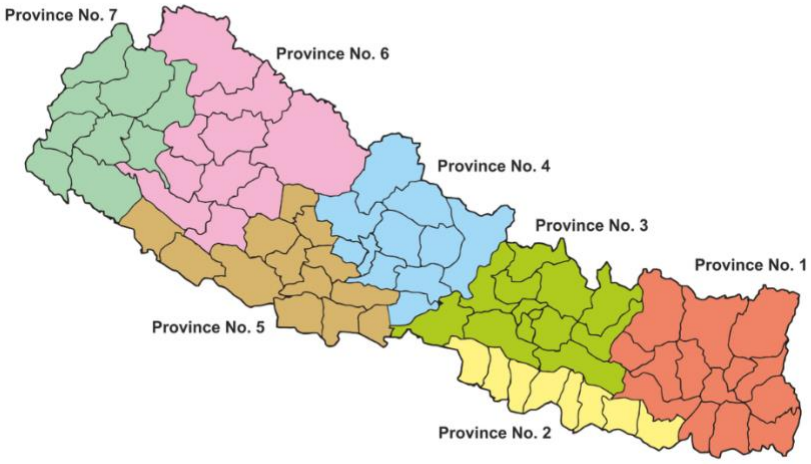


Source: Authors' own elaboration.

System identification and analysis

The SCALA system of focus will be **climate-smart farms,** in line with government priorities stipulated in the NDC and NAP. As a primary farm type, **commercial livestock farms and commercial paddy** farms will be considered priority systems. This will be selectively complemented by additional work on climate-smart farming of higher-value commodities under workstream three (building on earlier work). **Climate-smart livestock and paddy/rice farms** as well as **community seed banks** as a means to strengthening resilience to the changing climate will be primarily supported in Provinces 1 and 2, namely Koshi and Madhesh (see map below). These systems have been selected based on government priority targets in agriculture and land use and on the basis of extensive stakeholder consultations.

Figure 3 : Map of provinces of Nepal

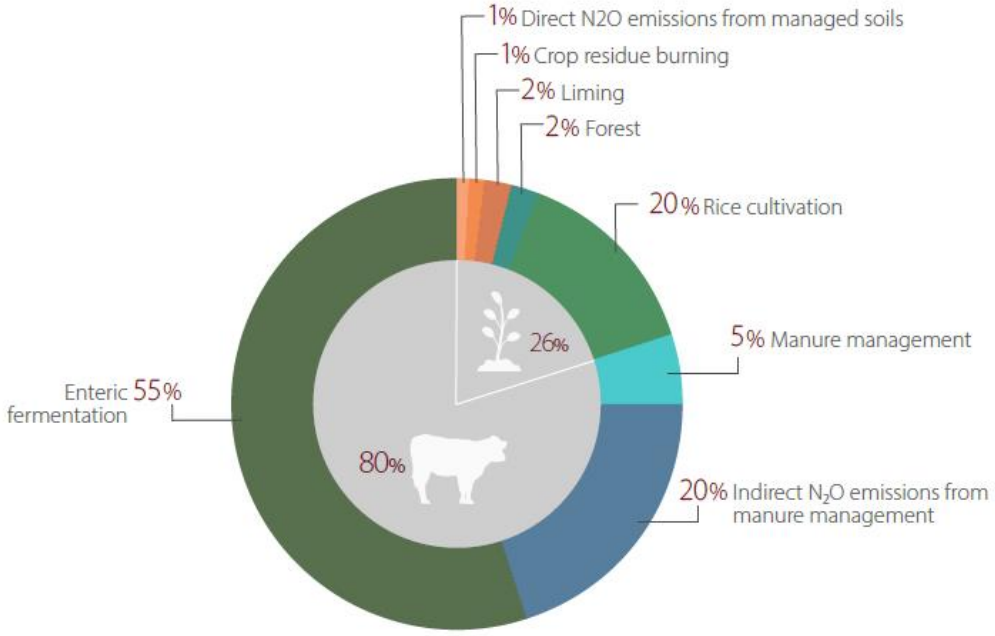


Source: Wikimedia Commons."Provinces of Nepal 2015." Wikimedia Commons. commons.wikimedia.org/wiki/Category:Maps_of_provinces_of_Nepal

The boundaries and names shown, and the designations used on this map 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.

These systems represent those with significant mitigation potential (see figure 4). Emissions from **livestock** (such as enteric fermentation and manure management) are responsible for almost half of total GHG emissions. Methane emissions from enteric fermentation contribute 34.5 percent of total GHG emissions. Methane from paddy cultivation contributes another 8.4 percent to total GHG emissions (MoFE, 2021b). At the same time, given risks and vulnerabilities identified in section 2.2, livestock systems are in need of resilience building. Increased climatic variability is projected to negatively impact feed availability, compounding existing pressure on pasture from overgrazing. Animal health is likely to be affected by more severe heat-related (and infectious) diseases and stress, as well as by extreme weather events (World Bank, 2021). Envisaged system outcomes hence include 'climate smart' improvements in productivity, emissions reductions, and improved resilience. Climate smart livestock systems would be capable of sustainably supporting livelihoods of farmers in the face of increasing climate variability and shocks, while contributing to the global environmental good of climate mitigation through reduced emissions per unit (GHG intensity).

Figure 4 : Share of agricultural activities in AFOLU GHG emissions (bar removals)



Source: **World Bank.** 2021. *Nepal Climate-Smart Agriculture Investment Plan*. Washington DC. World Bank Group.

A. **Paddy farming**: Paddy rice is a key crop for the country. It occupies 31percent of the harvested area, primarily in the Terai (and partially in the mid-hill region) of the country. Koshi and Madhesh Provinces are representative of these production systems. While projected climate change impacts on rice yields are ambiguous (MoFE, 2021b; World Bank, 2021), negative yield trends are projected to be concentrated in the Terai region due to decreased rainfall and higher temperatures during the growing season (MoFE, 2021b). Today's rice-growing farms vary in size, with smallholders growing rice for subsistence and market sales in small plots, and commercial farms growing rice at industrial scale. Rice contributes 7.5percent to the national gross domestic product (GDP) and 20percent to the total GHG emissions (CIAT *et al.*, 2017; World Bank, 2021). Productivity in rice production, however, is low, primarily due to the unavailability or distribution of seeds and fertilizers, poor nutrient management, and high dependence on increasingly unreliable monsoon rainfall (CIAT *et al.,* 2017). Fifty-six percent of the paddy growing area is being irrigated nationwide (Tripathi *et al.*, 2018). The envisaged system outcomes for rice farming hence include improved productivity and resilience to climatic variability and shocks for paddy rice farmers and related infrastructure and value chain actors (such as **community seed banks**), all while laying the foundation for reduced methane emissions through improved practices and transparency.

B. Similar to paddy farming, **commercial livestock farms** are recognized among stakeholders to be of particular importance to climate action (though a uniform definition of the characteristics of a *commercial* farm is lacking). The most recent national livestock survey, for instance, focused on medium and large commercial livestock farms based on specific thresholds of animals raised by livestock type was undertaken with support from FAO to

assess the impact of livestock activities on the environmental, social and economic sustainability of farming operations. The survey covered a wide range of topics: identification and general characteristics of the farm, characteristics of the farm holders and managers, size and characteristics of livestock, area of the farm, current and capital expenditure of the farm, access to information, production shocks by disasters and weather extremes and coping mechanisms, farm labor and assets, and waste management and adaptation to climate change and mitigation strategies. The total commercial livestock farms were found to be 6486 from all seven provinces of the country (Central Bureau of Statistics and MoALD, 2022). The SCALA work will use the same methodology adopted for a detailed survey in the targeted Provinces for a system-level assessment for commercial livestock farms.

Drivers and barriers

Several factors can be identified that are conducive to transformative action in livestock and rice systems. At the same time, certain barriers need to be overcome.

Figure 5 : Categorization of drivers and barriers to climate action

Source: Authors' own elaboration

In **livestock** production systems, productivity levels are low, and demand for livestock and livestock products, particularly milk and meat, has outstripped supply in Nepal, turning the country into an importer. Further anticipated population growth is expected to further increase demand and pressure on production systems. Cultural factors account for the preference of certain meat and dairy products over others, though dietary habits and consumer preferences are slowly shifting (towards more rice, vegetables and meat products) (CIAT *et al.*, 2017). In livestock husbandry, a large proportion of the labor is provided by women (World Bank, 2021), who on average lack access to the same resources and productive assets as men, constraining productivity. Additional constraints are presented by the insufficient availability and quality of livestock-targeted extension, limited access to modern animal health services and limited availability and use of improved breeding stock, poor housing and feeding conditions, and a lack of access to marketing, financing and insurance options (CIAT *et al.*, 2017). At a policy level, further challenges to transformative action are presented by the lack of institutional capacity and coordination, gaps in availability and access to data and information (to be assessed under outcome 2, see section 4.2.1), and underinvestment in productive technology and capacity.

In **rice** production systems, a key driver for action is political will to reduce import dependency, particularly given expected population and consumption growth. Approximately 50percent of Nepali population resides in the Terai region, much of which lies in low Terai belt of Provinces 1 and 2 (project focus area). A significant quantity of Nepali rice imports originates from India, and reducing import dependency while at the same time outperforming India in terms of emissions intensity of rice

production seems to be a politically attractive prospect. In terms of demand and socio-cultural value, rice clearly plays a central role in Nepali culture and life that could be leveraged for climate action. On average, Nepalese consume about 200 kg paddy rice per year, representing one-third of the total calorie intake in Nepal. Barriers however persist, and they include socio-cultural factors such as a reluctance to alter generations-old farming practices in favor of modern technology and practices, poor research-extension linkages and overall insufficient quality and availability of extension services (Tripathi *et al.*, 2018).

Actors of change

A wide range of stakeholders and institutions for both systems, paddy farming and commercial livestock farming are key to drive climate action and should hence be involved in SCALA implementation. Both the agriculture and livestock development are under the aegis of MoALD, so their respective departments will be the main stakeholder institution at the federal level. At the provincial and local levels, provincial agriculture ministry, agriculture knowledge centers, district livestock promotion centers, agriculture cooperatives, local diary centers and famers associations will be the major stakeholders.

SCALA will seek to capitalize on these drivers and leverage points and to overcome barriers for system transformation towards the envisioned outcomes, collaborating with the identified actors of change. Assessments and evidence produced under outcome 1 will illuminate detailed adaptation and mitigation options to overcome barriers and improve systems performance, setting out a solid baseline assessment and plan for achievement of the goals. Building on these assessments, outcome 2 work to mainstream improved practices and capacities in relation to the selected priority systems (inter alia on monitoring and reporting methane emissions from rice and cattle). Further expanding options for transformative action with a focus on involving private sector partners, work under outcome 3 will create and expand opportunities for private investment in systems assessed under SCALA outcomes 1 and 2 as well as preceding work (such as NAP-Ag). Activities contained under each of the workplan outcomes are described in more detail in the following section. A workplan in table format can be found in Annex 1.

4.3 WORKPLAN

4.3.1 Outcome 1

Under outcome 1, information and assessments will be produced to be used by national stakeholders to undertake transformative climate actions. Based on an initial review of NDC and NAP climate actions and priorities in land use and agriculture (Output 1.1.1) and their validation via the CAR matrix (see chapter 3) in a multi-stakeholder setting, more detailed systems-level assessments will be undertaken for the identified priority systems (commercial livestock farms and commercial paddy farms), contributing to government targets to lay out guidelines for climate-smart farming in these areas. A further system-level assessment (SLA) will assess transformative options for the preservation of climate-resilient varieties (paddy/ rice and other crops) in community seed banks and the resilience of community seed banks themselves. The latter assessment, is - in a systems logic - also to look at consumer preferences and market demand. The SLAs will directly contribute to government targets in this area, and lay the ground for MRV, capacity building and private sector engagement activities in these systems under outcomes 2 and 3.

4.3.2 Outcome 2

Building upon groundwork and assessments undertaken under outcome 1, transformative climate actions in the selected priority systems (commercial paddy and livestock farms) will be integrated into sectoral planning and monitoring systems, and related capacities will be strengthened. This includes

support to the integration of climate change matters into upcoming provincial Agricultural Development Strategy (ADS) documents (a key sectoral planning document) as well as potential inputs to the revision of the National Agriculture Development Strategy (2015-2035). Moreover, climate change-related capacities of stakeholders involved with the operation of selected priority systems will be strengthened via dedicated trainings, including for farmers that constitute members of community seedbanks as well as officials of Agriculture Knowledge Centers. Trainings will include a strong focus on gender-responsive climate-smart agriculture (CSA) aspects, as will a set of guidelines on gender-responsive CSA tools and technologies that SCALA will produce under outcome 2 (in line with government targets). Last but not least, capacities and systems to report emissions data in line with the enhanced transparency framework will be strengthened in relation to the selected priority systems. Specifically, a pathway for Nepal to move from Tier 1 to Tier 2 methodologies for methane emissions from paddy farming system (spread over different geography) and livestock will be set out under this project, with intermediate steps towards this result being directly supported by SCALA.

4.3.3 Outcome 3

Under Outcome 3, opportunities for private sector engagement for climate action in livestock and paddy farming systems and value chains will be expanded through a series of activities. Initially, business plans will be developed for 2-3 agriculture commodities and products– partly those taken into view under outcomes 1 and 2, such as dairy products, and partly building on previous analysis, such as studies conducted by the NAP-Ag programme. The business plans will give due consideration to climate impacts on value chains. Secondly, a de-risking strategy will be formulated to assess feasibility and implementation/ enabling environment options for an insurance/ risk transfer mechanism for a specific value chain, product and/or geography. Finally, based on a mapping and landscape assessment of private sector actors in one of the selected priority systems (for example dairy in province 1-2), concept notes for spin-off projects involving private sector partners will be initiated, including through multi-stakeholder workshops as well as financial and cost-benefit analysis for selected concept note options.

4.4 Stakeholder mapping

The following table provides an overview of stakeholders relevant to the implementation of the SCALA programme and transformative action in the selected priority systems. Most groups have been involved through representatives in consultations during the inception phase, and others will be engaged during multi-stakeholder processes for the implementation of activities.

Table 1. Stakeholder mapping

Institutions/Organisations	Key Responsibilities	Stakeholders		
		Key	Supporting	Other
Ministry of Agriculture and Livestock Development	Policy formulation, programme prioritization, and coordination	√		
Departments, Local offices, and projects	Implementation	√		
Provincial level	Implementation	√		
Local levels - municipalities	Implementation		√	
Private sector	Business plan implementation for commodities	√		
Financial Institutions/Banks	Financing		√	
Associations of local levels - Municipal Association of Nepal (MuAN) and National Association of Rural Municipalities (NARMIN)	Coordination, advocacy, and networking		√	
National non-governmental/ Community-based organizations (NGOs/CBOs)	Implementation of project or program-based actions	√	√	
Federations/Associations	Coordination, advocacy, networking, and lobbying		√	√
Academia	Research, advocacy, and knowledge generation		√	
Development partners (UNDP, FAO)	Technical and financial supports	√	√	

Source: Authors' own elaboration.

5. OPERATIONS

5.1 COUNTRY AND GLOBAL TEAM COORDINATION

The SCALA country team comprises multiple staff across agencies. From the UNDP, the following experts oversee the project:

- Program Officer - overall oversees the project and support the initiatives of the project, Ministry liaison, meeting support;
- Portfolio Manager - support and guidance for execution;
- Assistant Resident Representative (ARR) - Policy guidance; Regional focal person- liaison with the country office (CO) and technical backstopping to the project

From the FAO, the following experts oversee the project:

- Climate Change Expert (National Coordinator) - overall oversees the project and support the initiatives of the project, Ministry liaison, meeting facilitation and conduction;
- Assistant FAO Representative (AFAOR) and FAO Representative (FAOR) - strategic and policy guidance;
- LTO- liaison with the CO and strategic guidance to the project;
- Regional focal person - overall support for planning, implementing and reporting of the project.

FAO and UNDP closely work together to support project implementation: regular in-house meetings are held before the government meetings and meeting with government and other stakeholders are always done conjointly to have a common understanding of the project.

Project implementation is also supported by the FAO headquarters (HQ) team, where thematic experts are supporting in-country project delivery on all outcomes. Country office reports to the regional offices of both UNDP and FAO. Different virtual capacity building initiatives of CO team are being held on different aspects such as system level assessments, how to engage private sectors, and so on.

5.2 PROJECT STEERING COMMITTEE AND TECHNICAL WORKING COMMITTEE

The MoALD is the overall project executing agency and has nominated a national focal point to support the project implementation, demonstrating ownership of project activities and results. The project will be implemented in partnership with MoALD and other relevant Ministries and other non-government organizations, civil society organizations (CSOs) and private sector. Among these, the MoFE plays a key role as the focal Ministry for international environmental conventions (such as the UNFCCC) and related plans and policies, such as the NDC and NAP (see section 2.3.1).

For the overall monitoring and oversight of the project, a **PSC** is set up to coordinate the national level partners and to exercise oversight over project implementation. The Committee meets every six

months to review and approve the project activities and progress, as well as to ensure there is integration and sharing of resources among the relevant related initiatives.

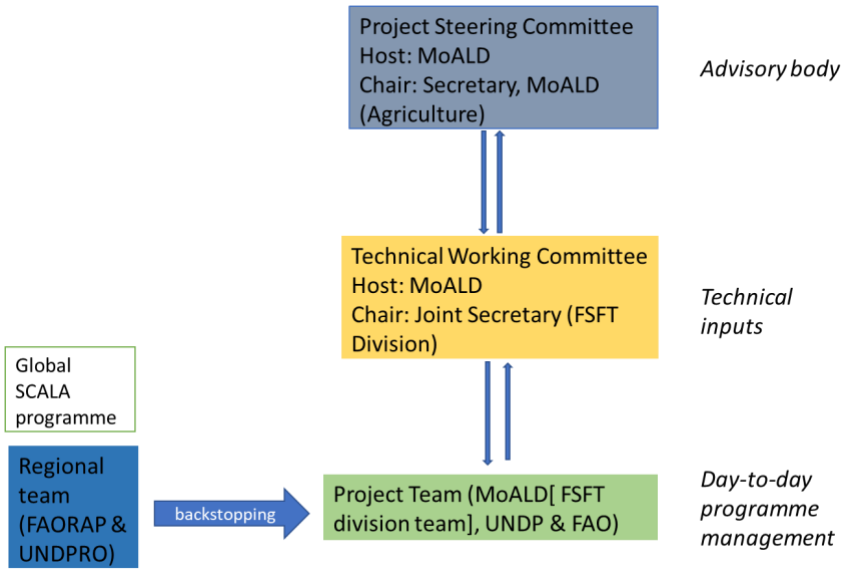
The PSC chaired by Secretary of MoALD (Agriculture Development) consists of the following members:

- Secretary, MoALD (Agriculture Development)
- Secretary, MoALD (Livestock Development)
- Joint Secretary, Agriculture Development Division
- Joint Secretary, Food Security and Food Technology Division
- Joint Secretary, Planning and Development Cooperation Coordination Division
- Joint Secretary, Agriculture and Livestock Business Promotion Division
- Joint Secretary, MoFE, CCMD
- Joint Secretary, Ministry of Land Management and Poverty Alleviation
- Agriculture & Environment - Member, NPC
- Joint Secretary (Agriculture & Forest focal) - MoF
- Director General (DG), Department of Agriculture
- DG, Department of Livestock Services
- Executive Director (ED), Nepal Agricultural Research Council
- UNDP representative
- FAO representative
- FNCCI: Agro Enterprise Centre (AEC)

In addition, a **technical working committee** chaired by Joint Secretary of Food Security and Food Technology Division has been established as a result of the inception workshop (see section 4.1). The technical committee oversees finalizing the work plan, sub activities and review technical documents as required for the SCALA programme. It consists of the following members and held its constituting meeting on 22 February 2023 (see Annex 4):

- Agro-biodiversity and Environment section, MoALD
- Food Technology and Safety Technology section, MoALD
- Livestock Production and Technology Promotion section, MoALD
- MoFE, Climate Change Management Division
- Ministry of Land Management Division (Planning)
- NARC
- UNDP representative
- FAO representative

Figure 6: Relationship and division of tasks between PSC, TWC and project team



Source: Author's own elaboration

5.3 MONITORING AND EVALUATION AND REPORTING

The monitoring & evaluation (M&E) and reporting arrangements of SCALA Nepal comprise the following:

1. At programme level, the country team reports quarterly by providing updates on progress per outputs, activities, and indicators as well as quarterly expenditures, communication materials developed and organization of events.
2. At national level, the PSC will monitor and review regularly the programme implementation including oversight of the annual workplan and budget.

The programme activities will also be reported to the global team through the Biannual and Annual Interim Reports, that will be submitted by the global team to the donor on 31 March and 30 September each year. In addition to these regular M&E components, a mid-term review (MTR) and a terminal evaluation (TE) will take place on the basis of the programme results framework and target indicators, by using standard templates and guidance prepared by FAO Office of Evaluations (OED) and UNDP Independent Evaluation Office (IEO).

5.4 KNOWLEDGE MANAGEMENT AND COMMUNICATIONS

Technical outputs of the project (such as assessments produced under outcome 1) will be made available to a wide audience, including where feasible and relevant through summary products aiming to communicate the key messages. Exchanges and learnings from workshops carried out under outcomes 2 and 3 will be captured and disseminated in the form of proceeding reports. Additional knowledge products such as technical briefs on selected themes will be considered during the project implementation. In terms of communications products, an interview with the MoALD focal point is planned to be published on the SCALA website within the first half of 2023.

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ANNEX 1: PROGRAMME RESULTS FRAMEWORK AND BASELINE INFORMATION

Activities	Deliverables	Justification	Target: Unit of measurement	Modality	Agency	2023				2024			
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1.1. Evidence base for implementation of transformative climate action in land-use or agriculture strengthened													
Activity 1.1.1: Conduct participatory technical reviews of NDCs and/or NAPs to identify priority land-use and agriculture actions with transformative and systems-change potential	Technical review and analysis to identify priority land use and agriculture actions to support NDCs/NAPs	SCALA global deliverable	1 Summary report on NDC and NAP AFOLU targets	internal	UNDP								
	Technical working committee/ PSC meeting organized to prioritize options based on government priorities (in the form of CAR matrix and/or workplan)	Multi stakerholder coordination	3 multistakeholder workshops (incl. TWC, PSC, inception report) organized for selection of climate actions	internal	UNDP								
		NDC implementation plan	2-3 Systems-level assessment reports (to inform future guidelines for methane emissions reductions from rice and cattle).	Service providers (consultancy, research instit	FAO								

	1 report per SLA (cognizant of local-level implementation options and tools) on 1. Assessment and guidelines/ indicators for **climate-smart commercial farms** [Cattle and rice in province 1 and 2] 2. **Climate-resilient community seed banks** 3. **Adoption of climate-resilient crop varieties** by local communities (incl. consumption preferences) in province 1 and Madhesh Province	NDC implementation plan, NAP NDC implementation plan (evidence-based studies: NARC priority area)		ution)									
Output 2.1. NDC and NAP priorities for land-use and agriculture enhanced and integrated into sectoral planning and budgeting													
Activity 2.1.1: Strengthen multi-stakeholder coordination and institutional capacities for the integration of NDC and/or NAPs' priorities on land-use and agriculture in	Federal or provincial ADS to include climate mitigation and adaptation priorities: Support province 1 and/or 2 for formulation of ADS with integration of climate change	NDC implementation plan, TWC feedback	CC integrated in (draft) provincial ADS (province 1 and/or 2), inputs into federal-level ADS process	Local consu ltant	UN DP								
	Mapping and capacity gap assessment of key stakeholders (Agriculture Knowledge Centers (AKCs) and community seed banks in province 1 and 2)	NAP target, NDC implementation plan	1 report on stakeholder assessment and engagement prepared;	Cons ulting firm	UN DP								

policies, plans and budgets	Enhance the capacity development package prepared under NDC and NAP/NAP-Ag for provinces and adapt to community seed banks, AKCs and PMAP-PIU (province 1 and 2)	NAP target, NDC implementation plan	1 enhanced capacity development package prepared targeting project stakeholders;	Consulting firm	UNDP								
	Strengthen capacity of AKCs (14 in province 1 and 9 in province 2), community seed and Prime Minister Agriculture Modernization Project (PMAP-PIU) in provinces 1 and 2, including on gender-responsive tools (see below)	NAP target, NDC implementation plan	2 trainings for AKCs, 2 trainings for community seed banks, potentially integrating a gender module	Consulting firm	UNDP								
	1 Assessment of gender-responsive CSA tools and technologies, 1 set of guidelines to facilitate integration and scaling up of gender-responsive and socially inclusive climate-smart technologies and practices	NDC implementation plan	1 assessment, 1 set of inclusive guidelines	Consulting firm	UNDP								
Activity 2.1.2: Improve/develop MRV and M&E systems at national and/or sectoral level for monitoring and reporting, including collection of gender	Technical review of selected climate solutions in line with gov't priorities (**methane from rice, livestock**) in terms of data gaps and needs for establishing baseline for CCM	NDC implementation plan	1-2 technical review reports on data gaps and needs (livestock, rice); Sharing and validation organized	Local + international consultant (desk review)	FAO								

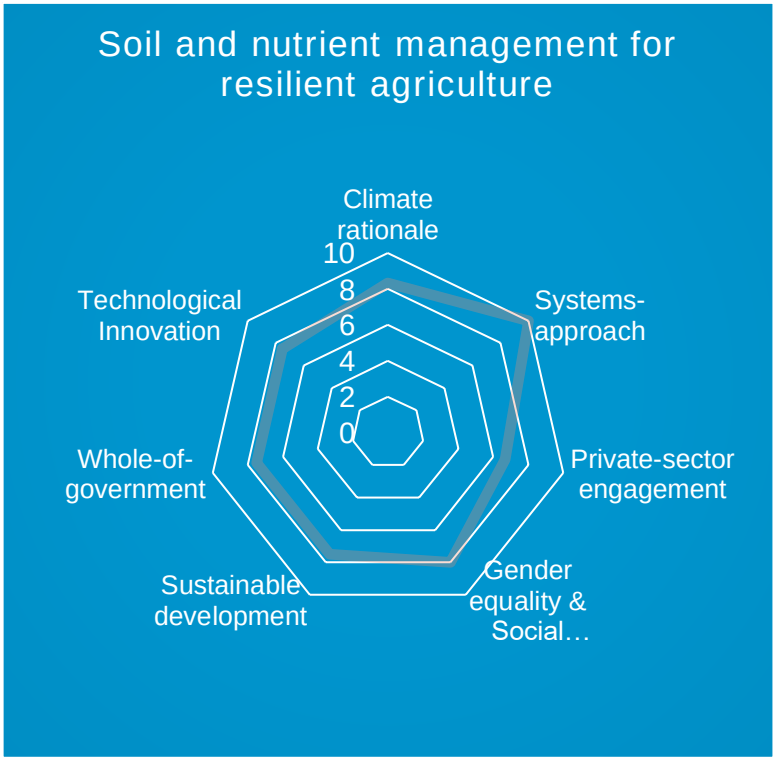
disaggregated data	- 1 roadmap or action plan to respond to data gaps and move to Tier 2 for **rice** - 1 action plan to move to Tier 2 for **livestock** (incl. groundwork on activity data & emissions factor for selected [sub-]categories and/or AEZs)	NDC implementation plan	2 roadmap/ action plan documents (1 for rice, 1 for livestock), including EF calculation groundwork for livestock	Local + international consultant	FAO								
Activity 2.1.3: Enhance NDCs and/or NAPs by integrating transformative and inclusive land-use and agriculture priorities	2 PSCs twice a year, TWC quarterly meeting	TWC feedback	Proceeding reports of workshops; 1 TWC or PSC meeting per quarter (8 meetings total)	internal	UNDP								
Output 3.1. Enabling environment and incentives enhanced for private sector engagement in NDCs and NAPs implementation													
Activity 3.1.1: Identify policy and financial de-risking measures and business opportunities	1-2 business plan for a specific value chain or commodity, 1 business plan for climate-smart commercial dairy farm (linked to SLA)	Private Sector Engagement for Agricultural Commodities in ADS, Additional references in NAP and NDC	2-3 business plan prepared for selected commodities; Sharing/Consultations meeting proceedinds; Financing opportunities for scaling public and private sectors prepared	Consulting firm	UNDP								

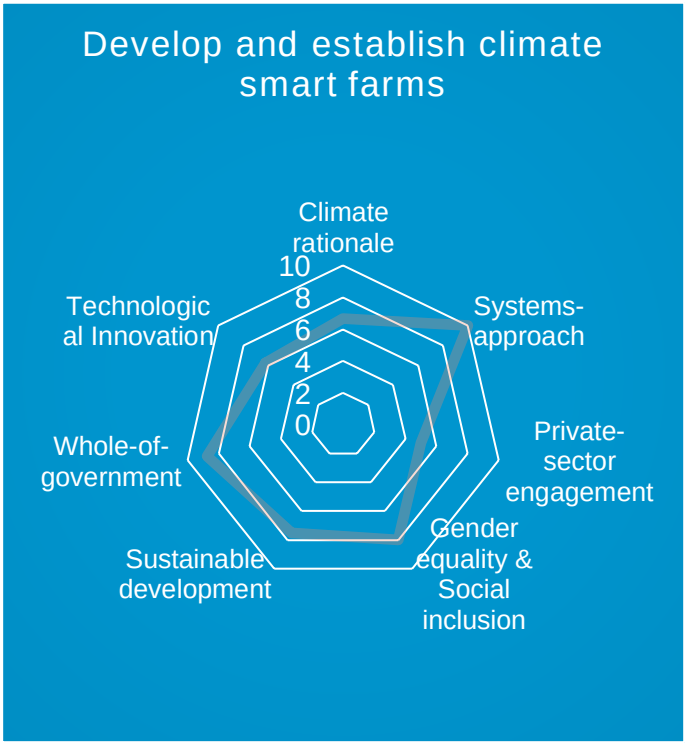
	Multi-stakeholder consultations/dialogues organized using systems-leadership/system-change approach.	Private Sector Engagement for Agricultural Commodities in ADS, Additional references in NAP and NDC	Multistakeholder meeting organized per year (for example, 2 consultations organized)	Internal (workshop)	UNDP								
	Formulation of a de-risking strategy assessing the feasibility for weather-risk insurance for a specific VC and/or geography and enabling environment and public sector support options	NAP target	1 de-risking strategy document prepared	Consulting firm	UNDP								
	Sharing and validation of de-risking/ insurance strategy	NAP target	1 sharing and validation workshop organized (incl. proceeding report)	Workshop	UNDP								
Activity 3.1.2: Develop project concept notes to leverage investment for transformative and inclusive action in partnership with the private sector	1 mapping and landscape assessment on potential private sector actors at national and sub-national levels for systems assessed under outcome (such as dairy) in province 1 and 2	Private Sector Engagement for Agricultural Commodities in ADS, Additional references in NAP and NDC	1 technical report	Consulting firm	FAO								
	1 consultation organized on developing larger project concept notes involving private sector partners		Proceeding reports of 4 consultations on concept notes	Workshop	FAO								

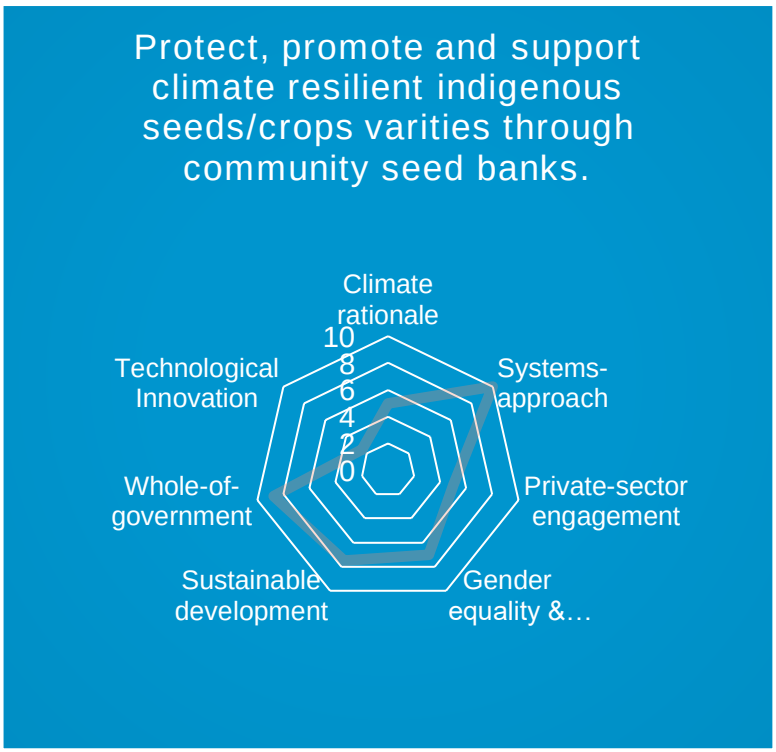
	1 Cost-benefit and financial analysis of options conducted to inform feasibility of concept notes		1 technical report prepared	Consulting firm	FAO								

Source: Authors' own elaboration.

ANNEX 2: CLIMATE ACTION REVIEW MATRIX RESULTS







Source: Authors' own elaboration

ANNEX 3: INCEPTION WORKSHOP AGENDA AND LIST OF PARTICIPANTS

Scaling up Climate Ambition on Land Use and Agriculture through

NDCs and NAPs (SCALA)

Inception Workshop for the SCALA Program in Nepal

21 December 2023

Objectives and outcomes:

The main purpose of the workshop was to introduce the SCALA program in Nepal and to further discuss the workplan with the different with the stakeholders involved in the development and review of the different inception phase materials. More specifically, the workshop

1. Introduced the SCALA programme objective, approach and expected outputs for Nepal,
2. Presented the results of the baseline survey, climate Action review matrix , theory of change the workplan to all participants,
3. Generated a discussion on the overall approach and workplan

Following the workshop, it was expected that,

1. Participants will gain a good understanding of the SCALA programme, and its activities and approach in Nepal
2. The workplan will be validated and thereby, consolidated

Time	Description	Speaker/Moderator
Session 1: Introduction and background		
	- Opening of the workshop, workshop Chair, introduction of participants - Welcome remark and objective of the meeting	• Facilitator, MoALD Climate Change Management Division, Ministry of Forests and Environment / Sanjeev Karna, Joint Secretary, MoALD
	Introduction to SCALA program and regional perspectives	Beau Damen, FAO RAP
	Presentation: MoALD's contribution to climate change, NDC and NAP	Bishnu Hari Devkota, Under Secretary, MoALD
	Group Photo	All participants
Session 2: Overview of the SCALA Baseline survey, Theory of Change and Workplan		

	Overview of SCALA Climate Action Review and Baseline survey, Theory of Change, Draft Work Plan	Shalu Adhikary
	Break	**All participants**
	Group work and Plenary discussion Guiding questions: 1. *Do you have feedback on the findings of the climate action review? Is it in alignment with the priority areas for MoALD ?* 2. *What is your input or comment on the draft baseline?* 3. *Do you recommend any adjustments or revisions to the work plan?*	Discussion
	Wrap-Up and closing	- Remarks by Vijaya Pd. Singh, ARR (UNDP) - Remarks by Dr. Binod Saha, Asst. FAOR - Remarks by Mr. Sanjeev K. Karna, JS, MoALD - Meeting chair- Secretary, MoALD

List of participants:

1. Govinda P. Sharma, Secretary (Agriculture Development), MoALD
2. Deepak K. Kharal, Secretary (Livestock Development), MoALD
3. Pramod Koirala, Under Secretary, MoALD
4. Somkanta Rijal, Department of Food Technology and Quality Control
5. Mahesh Kharel, PD / National Planning Commission
6. Prateek Joshi, MoALD
7. Sirish Pun, Under Secretary, MoALD
8. Shakar Sapkota, Under Secretary, MoALD
9. Nabin Ghimire, Under Secretary, MoALD
10. Chanda Joshi, Agri-Economist MoALD
11. Mina Kandel, Agri-Economist, MoALD
12. Radha Devi Sharma, Food Research Officer, MoALD
13. Rameshwar Rimal, Technical Officer, National Agriculture Research Council
14. Hem Raj Regmi, Joint Secretary
15. Sanjeev K. Karn, Joint Secretary MoALD
16. Yam Nath Pokharel, Under Secretary, MoFE
17. Kali Prasad Parajuli., Joint Secretary MoALD
18. Binod Saha, Assistant FAOR
19. Rajendra Mishra, Joint Secretary, MoALD
20. Sabnam Shivakoti, JS MoALD
21. Dr. Ram Krishna Shrestha, Joint Secretary, MoALD
22. Dr. Ram Nandan Tiwari, Joint Secretary, MoALD
23. Dr. Mahadeb P. Poudel, Sr. Agri-Economist, DoA
24. Rassu Manandhar, PC/ UNDP
25. Dr. Dinesh Parajuli, Managing Director, AEC/ FNCCI
26. Pragyajan Y. Rai, Portfolio Analyst, UNDP
27. Dilip K.C., Under Secretary, Ministry of Finance
28. Shalu Adhikari, Climate Change Specialist, FAO
29. Lakshya Chaudhary, Officer, MoALD
30. Bishnu H Devkota, Sr. Agri Ext. Officer, MoALD
31. Yashoda Nepali, Programme Assistant, FAO
32. Suman Giri, FAO
33. Hari Tandukar, Admin. Asst., FAO
34. Tek Bahadur Air, MoALD
35. Dr. Aabhas Paudel, Livestock Development Officer, MoALD
36. Sudip Devkota, Horticulture Development Officer, MoALD
37. Suresh K. Thakur, Horticulture Development Officer, MoALD
38. Chandra B. Budha, Plant Protection Officer MoALD

ANNEX 4: FIRST TECHNICAL WORKING COMMITTEE PROCEEDINGS

Proceedings of Technical Working Committee (TWC) Meeting for SCALA programme

Background of the Project: Support Programme on Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs (SCALA) is designed to support transformative climate action in the land use and agriculture sectors to reduce GHGs emissions and/or enhance removals, as well as strengthen resilience and adaptive capacity to climate change in participant countries.

Impact: Project countries have translated their NDC and/or NAP into actionable and transformative climate solutions in land-use and agriculture with multi-stakeholder engagement

> **Outcome 1:** Information and assessments used by national stakeholders to identify and appraise transformative climate actions to advance NDC/ NAP priorities
>
> **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

Period: March 2022 - September 2025

Executing/Implementing Partners: MoALD and FAO, and UNDP

Technical Working Committee (TWC) rationale: The Ministry of Agriculture and Livestock Development (MoALD) is the overall project executing agency and has nominated a national focal point to support the project implementation, and ownership of project activities and results. The project will be implemented in partnership with MoALD and relevant Ministries, including the Ministry of Forests and Environment, and other Non-government Organizations, CSOs and private sector. For the overall technical back stopping of the output of the project, a Technical Working Committee (TWC) is set up to bring all the technical experts of partners for smooth implementation of the project. The TWC will also provide oversight to the implementation. The Committee meets at least once in three months to review and approve the technical documents related to the output of the project, as well as to ensure the finalization of workplan, and other ongoing and proposed activities of the project.

In this context, the **first meeting of TWC was organized on the following date, time and venue:**

Date: 22 February 2023, Wednesday, 13:00-15:00 NST

Venue: Meeting hall, MoALD

Agenda: SCALA workplan discussion and finalization

Schedule:

Time	Activity	Responsibility
13:00-13:15	Participant arrival and registration	FAO & UNDP
13:15-13:30	Welcome and objective of the meeting	Sanjeev Karn, Joint Secretary
13:30-13:40	Introduction of the member and other participant	
13:40-13:55	Overview of the project	FAO
13:55-14:10	TWC- overview, roles and responsibility	Bishnu Hari Devkota
14:10-14:45	Presentation on the workplan, discussion and decision	MoALD, FAO, UNDP
14:45-14:50	Remarks from any TWC member	
14:50-14:55	Remarks from Chair	Sanjeev Karn, JS
14:55-15:00	End of the program Tea/Refreshment	

Activity undertaken:

- The meeting was Chaired by Mr. Sanjeev Karn, Joint Secretary, Food Safety and Food Technology Division, MoALD and also briefed on the objective of the meeting.
- Introduction of the participants were done voluntarily.
- Brief overview of the project was shared by Shalu Adhikari and the need of TWC was awared
- Bishnu Hari Devkota presented on the rationale of TWC, members and its frequency of meeting with regard to SCALA
- Mr. Vijaya P. Singh, ARR- UNDP, shed light on the genesis of SCALA, why it was envisioned and the support for MoALD for readiness to climate finance and climate actions.
- Janek Toepper, FAORAP shared on the global objectives, initiatives from Asian countries like Cambodia, Mongolia and Thailand.
- Presentation on the work plan was done by Shalu Adhikari, FAO and Deepak KC, UNDP with justification in line to the NDC and NAP targets of Agriculture sector on the activities as per the outcomes of the project.
- Floor was open for discussion and opinion was collected from TWC members.
- Beau Damen, LTO of the project, highlighted on the way ahead with regard to this meeting and further endorsement by PSC of the project.
- Sanjeev Karn, Joint Secretary thanked all the members for their time to be a part of the meeting and ended the meeting.

ANNEX 5: PROJECT SYNOPSIS IN ENGLISH & NEPALI

Scaling up Climate Ambition on Land Use and Agriculture through Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs)- SCALA

The Support Programming on Scaling up Climate Ambition on Land Use and Agriculture through NDCs and NAPs (SCALA) 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 (12 countries in Africa, Asia and Latin America). 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 is jointly implemented by FAO and UNDP until 2025. The project will tap into 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 will be leveraged for knowledge exchange and complementary activities.

Need has felt for actions to harness the Agriculture, Forests and Other Land Use (AFOLU) sectors' potential for climate change mitigation and adaptation. The overall estimate of emissions from AFOLU is estimated to be 21-37percent of total net anthropogenic GHG emissions (IPCC, 2018a; IPCC, 2019). At the same time, the most affected are the most vulnerable who depend on agriculture for their livelihoods and income, particularly small holders in developing countries. Global consensus on the actions needed to address climate change that is framed under the United Nations Framework Conventions on Climate Change (UNFCCC) and its Paris Agreement; this is closely linked to efforts to achieve inclusive and resilient development under the Sendai Framework for Disaster Risk Reduction (SFDRR), and the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs). Nationally determined contribution (NDCs) and National Adaptation Plans (NAPs) are the processes by which countries plan for and communicate their mitigation and adaptation goals and strategies to the global communities under the Convention. The project is implemented by Ministry of Agriculture and Livestock Development (MoALD) with technical support from FAO and UNDP in collaboration and coordination with Ministry of Forests and Environment, and other stakeholders including FNCCI, NARC, Academia, and agri-private sectors.

आयोजना विवरण :

NDC र NAPs का लक्षयहरुलाई सहयोग पुर्याउने उद्देश्यले परिकल्पना गरिएको Scaling Up Climate Ambition on Land Use and Agriculture (SCALA) आयोजना मार्फत भूमी प्रयोग र कृषि क्षेत्रवाट उत्सर्जित हरित गृह ग्याँस कम गरी यसको प्रभावलाई जलवायु परिवर्तनमा कार्यलाई समर्थन गर्न परिकल्पना गरिएको हो।SCALA कार्यान्वयन भइरहेको सहभागी १२ देशहरूमा (अफ्रिका, एसिया र ल्याटिन अमेरिकी देशहरु गरी १२ देशहरू) जलवायु परिवर्तनमा अनुकुलन क्षमता बढाई उत्थानशिल परिस्थितिकीय प्रणाली बनाउने उद्देश्यका रहेको छ । NDC र NAPs लाई बहु सरोकारवाला संघ संस्थाको संलग्नताका साथ मूमी प्रयोग र कृषिमा परिवर्तनकारी र कार्यमूलक जलवायू परिवर्तनका समाधानहरुमा अनुवाद गर्नु हो । यसले कार्यान्वयनलाई अगाडी बढाउन सार्वजनिक र नीजि क्षेत्र बीचको सहकार्यकमा जोड दिएको छ । यसको विशिष्ट उद्देश्य देशहरूले आफ्नो NDC र NAPs लाई बहु-सरोकारवाला संलग्नताका साथ भूमि प्रयोग र कृषिमा कार्ययोग्य र परिवर्तनकारी जलवायु समाधानहरूमा अनुवाद गर्नु हो। यसले कार्यान्वयनलाई अगाडि बढाउन सार्वजनिक र निजी क्षेत्रबीचको सहकार्यमा जोड दिएको छ ।यो तीन परिणामहरू मार्फत प्राप्त हुनेछ:-

१: भू-उपयोग र कृषिमा NDC/NAP प्राथमिकताहरूलाई अगाडि बढाउन परिवर्तनकारी जलवायु कार्यहरू पहिचान र मूल्याङ्कन गर्न राष्ट्रिय सरोकारवालाहरूको गरेर

2: जलवायु जोखिम-सुचीत भूमि उपयोग र कृषि क्षेत्र प्राथमिकताहरू राष्ट्रिय र क्षेत्रीय योजना, बजेट, र अनुगमनमा एकीकृत गरी

३: भू-उपयोग र कृषिमा जलवायु कार्यमा निजी क्षेत्रको संलग्नता बढाउन

SCALA FAO र UNDP द्वारा 2025 सम्म संयुक्त रूपमा लागू गरिएको छ। परियोजनाले देश प्रोग्रामिंग फ्रेमवर्कको समर्थनमा सम्बन्धित क्षेत्रीय कार्यालयहरू, क्षेत्रीय विशेषज्ञ केन्द्रहरू र देश कार्यालयहरू मार्फत काम गर्ने दुवै निकायहरूको प्राविधिक ज्ञान र अनुभवलाई ट्याप गर्नेछ। दुबै एजेन्सीहरूसँग पर्याप्त विश्वव्यापी, क्षेत्रीय र राष्ट्रिय पहलहरू छन् जुन ज्ञान आदानप्रदान र पूरक गतिविधिहरूको लागि प्रयोग गरिनेछ।

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IKI INTERNATIONAL CLIMATE INITIATIVE

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Information
UNDP website
FAO website