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

Inception Report | MONGOLIA



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It summarizes the inception phase and launch of the SCALA Programme in Mongolia. The inception phase was characterized by 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

AFOLU	Agriculture, Forestry and Other Land Use
ALAMGC	Agency for Land Administration and Management, Geodesy and Cartography
BMUV	German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection
CAR	Climate Action Review
CBIT	Capacity Building Initiative for Transparency
FAO	Food and Agriculture Organization of the United Nations
FTTRI	Forest and Tree Training and Research Institute
GCF	Green Climate Fund
GDP	gross domestic product
GEF	Global Environment Facility
GHG	greenhouse gas
IKI	International Climate Initiative
IRIMHE	Information and Research Institute of Meteorology, Hydrology and Environment
M&E	Ministry of Environment and Tourism
MET	Ministry of Environment and Tourism
MoF	Ministry of Finance
MoFALI	Ministry of Agriculture and Light Industry
NAP	National Adaptation Plan
NDC	nationally determined contribution
NEMA	National Emergency Management Agency
NGO	Non-Governmental Organisation



PSC	Project Steering Committee
PSE	private sector engagement
SCALA	Scaling up Climate Ambition on Land Use and Agriculture
SDGs	Sustainable Development Goals
ToC	Theory of Change
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change



1. INTRODUCTION

1.1 PURPOSE OF THE REPORT

The purpose of the inception report is to present the Scaling up Climate Ambition on Land Use and Agriculture through nationally determined contributions and National Adaptation Plans (SCALA) programme's approach based on the series of activities undertaken during the inception phase in Mongolia. It specifies the SCALA inception activities undertaken by the United Nations Development Programme (UNDP) and Food and Agriculture Organization (FAO), in close collaboration with the Ministry of Food, Agriculture and Light Industry (MoFALI) and Ministry of Environment and Tourism (MET) to determine the scope and areas of SCALA programme implementation in Mongolia. These include a baseline survey, a review of climate actions outlined in Mongolia's nationally determined contribution (NDC) and/or National Adaptation Plan (NAP), and the theory of transformative change that describes a process by which implementation of the identified priority actions will contribute to transformative change in the Mongolians' agriculture and land use sectors in general. The insights, perspectives and recommendations gathered during the inception phase were used to identify the priority areas for the country and to develop the workplan for the SCALA programme in Mongolia.

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 the German Federal Ministry for the Environment, Nature Conservation, 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 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 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 (such as, 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 FAO and the 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 is leveraged for knowledge exchange and complementary activities.



1.3 INCEPTION PHASE

The inception process followed five steps: 1) desktop review, 2) stakeholder consultations, 3) climate actions review and assessment for transformation potential, 4) designing the theory of transformative change and 5) validation inception meeting.

1.3.1 Desktop review

More than 70 source materials with information related to climate change mitigation and adaptation measures on Mongolia's agricultural and land use sectors were screened and 40 source materials were used for the baseline survey. The UNDP and FAO COs had jointly organized two technical meetings prior to the inception workshop with the key stakeholders to discuss the synergies with other similar programmes and projects in Mongolia, define actions under SCALA and to introduce the baseline survey and Climate Action Review (CAR) Matrix. Due to Covid-19 technical meetings were held virtually, using the ZOOM platform.

1.3.2 Stakeholder consultations

The first technical stakeholder meeting was held in June 2021 with 34 participants with the objective to convene virtually to discuss the overview of the SCALA: Theory of Change and Climate Action Matrix; review the progress of the Global and Country team so far; discuss the way forward; constitution of PSC, Workplan, inception workshop and so on. The list included six representatives of MoFALI, four representatives of MET, two representatives from Climate Change Research and Cooperation Center (CCRCC), one representative from Forest and Tree Training and Research Institute under the Mongolian University of Science and Technology (FTTRI), one representative from Hydro-Meteorological and Environmental Research Center of Ulaanbaatar City (UBHMERC), one representative from Information and Research Institute of Meteorology, Hydrology and Environment (IRIMHE), one representative from Agency for Land Administration and Management, Geodesy and Cartography (ALAMGC), one representative from Ministry Finance (MoF), seven participants from each of other seven projects, five representatives from UNDP and FAO, and five members of the SCALA global team. The national stakeholders were actively engaged in the discussion to get clear understanding of the activities and outcomes under SCALA.

The second technical meeting was held in September 2021 with the objective to discuss in detail the actions necessary to consider at the implementation stages of the SCALA programme. A total of 22 participants attended the meeting virtually which included 1 representative of MoFALI, one representative of MET, one representative of MoF, two representatives of CCRCC, one representative of National Development Agency, one representative of IRIMHE, one representative of Hydro-Meteorological and Environmental Research Agency, Institute of Meteorology and Hydrology, one representative of the ALAMGC, one representative of National Emergency Management Agency (NEMA), five representatives from UNDP and FAO, and seven members of the SCALA global team from abroad have participated in the second technical meeting.

Due to the restrictions of the Covid-19 pandemic, the SCALA team was unable to meet in person and have discussions with the key national stakeholders on the baseline survey, Climate Action Review (CAR) matrix and Theory of Change (ToC) as was envisioned. To overcome this challenge, the team instead created an online questionnaire to collect information on the NDC and NAP interventions as relevant to the baseline survey. The questionnaire was shared with 39 stakeholders to provide information related to the NDC and NAP in the agricultural and land use sectors, and six participants from four organizations responded. This was also complemented with information obtained from key respondents via e-mail who are involved in policy development, planning, budgeting, and implementation in the areas of climate change, agriculture and land use. The progress and results of the work under inception phase were presented and discussed with the FAO and UNDP backstoppers during the team meetings of FAO and UNDP. The feedback received consequently from the regional and global teams were incorporated to produce the final draft of the baseline survey. The draft of the baseline survey was submitted to the global team of SCALA three times and received feedback two times (See Annex 1, 2, 3 and 4).



1.3.3 Climate Action Review and Theory of Change

The main objective of the CAR matrix is to review the priority adaptation and mitigation actions to identify their transformative potentials based on the seven dimensions of transformation being explored through the SCALA programme: climate rationale; systems-thinking; private sector engagement; gender equality and social inclusion; sustainable development; whole-of-government approach; technological and financial innovation. The ToC was designed to demonstrate how different options can help to reduce GHG emissions from land use and agricultural sector for example, by regulating the number of livestock in accordance with the pasture carrying capacity including gender and GLEAM tool analysis at national level. It outlines a narrative around transformative pathways and provides a rationale behind SCALA's planned activities. The Theory of Change offers an overarching narrative that ties together workplan activities as mechanisms of transformation. The CAR matrix and the ToC were developed by the national consultants through a consultative process that involved responses, feedback and review by the government stakeholders, regional backstoppers from FAO and UNDP, and technical experts from the SCALA global team.

As a result of using the CAR matrix and elaborating the ToC, the programme team elaborated the following:

SCALA-Mongolia 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 livestock sector. In terms of the programme-specific objective, SCALA aims for Mongolia to have translated its NDC into actionable and transformative climate actions in land use and agriculture with special focus on the measures that are defined by the NDC Action Plan of the Mongolian government in 2021. This includes activities related to nomadic livestock husbandry, carbon sequestration potential of pastureland, forest strip establishment for arable farming land, surface water collection system, and assessing adaptive potential of the fruit and berry tree varieties.

1.3.4 Inception workshop

The inception workshop was organized to present the SCALA programme baseline assessment, Theory of Change and work plan for 2021-2024 to the stakeholder validation and finalization in December 2021. See Annex 5.

2. CONTEXT

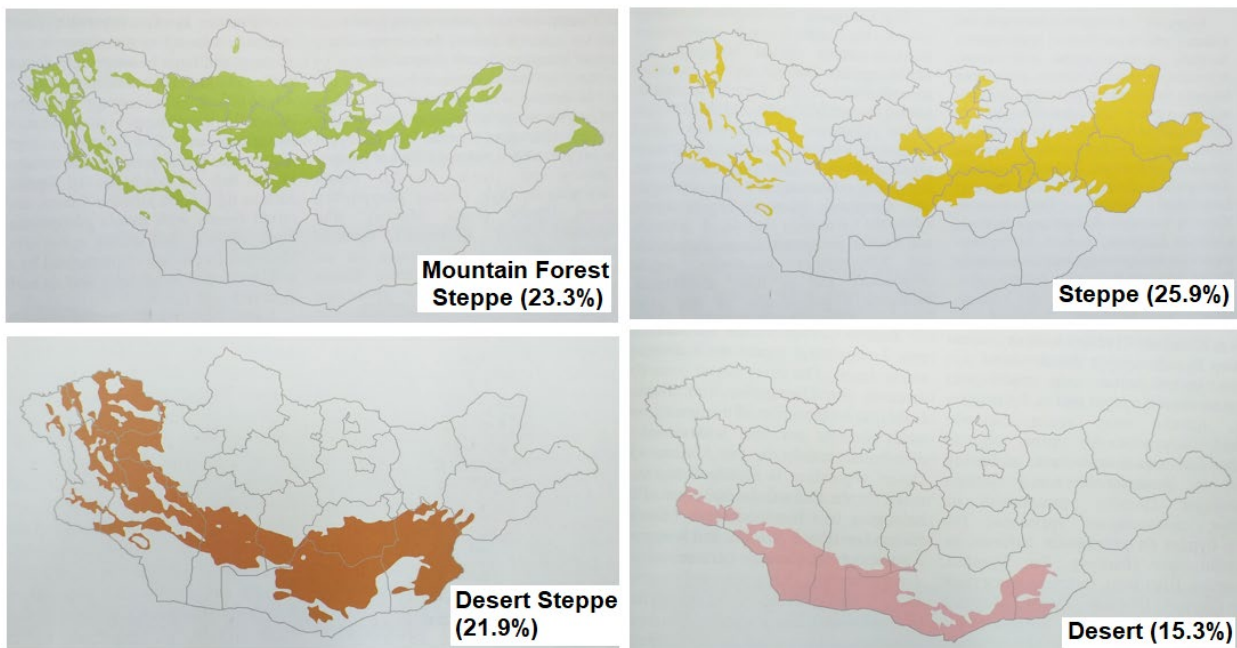
2.1 COUNTRY PROFILE

Mongolia is the 19th largest country in the world with a surface area of 1,564,116 square kilometers. It is also the world's second largest landlocked country with mountains covering the northern and western regions and the Gobi desert located in the south. Ulaanbaatar is the capital and the largest city of Mongolia. Average altitude in Mongolia is 1,580 meter above the sea level. The highest point is the Khuiten Mountain peak (4,653 meter) in the west and the lowest is the Khokh Nuur Lake in the east 518 meter above sea level. The country is located in a transition zone at the crossroads of the northern Asia and Boreal Arctic regions where the Siberian Taiga meets the Asian deserts and steppe. Mongolia has four main ecological zones such as high mountains, forest steppe, the steppe and the Gobi desert regions (Figure 1).



The unique features of these ecosystems are widely recognized in comparison with those of other countries in the same latitude of the northern hemisphere. Geographical features and the dry and cold climate are associated with fragility of natural ecosystems. The nature and the environment, the flora and fauna of the country are being changed significantly due to socio-economic stress as well as climate change.¹ Mongolia's forests cover 8 percent of the country and lie mostly in the permafrost area. They store carbon, protect soil from erosion and regulate runoff. The continued melting of the permafrost will likely lead to shifts in forest and species composition.

Figure 1: Distribution map of the mountain forest steppe, steppe, desert steppe and desert zones



Source: IRIMHE. 2022. Capacity Building Initiative for Transparency project report, Assessment of productivity of pastureland species and livestock productivities [shapefiles]. Cited 10 December 2022. <https://eic.mn/cbit/catalogue/#/document/181>

Disclaimer: 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. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The Constitution and the 1992 Law on Government Administration proclaims Mongolia as a unitary state with three tiers of local Government. Governance of the administrative and territorial units is based on the principle of centralized authority as well as a gradual transition toward a system of local Governments. The country is divided into 21 administrative units known as “Aimags” (Figure 1: Background map of aimag provinces in Mongolia). Aimags are further divided into smaller administrative units “Soum”, accordingly Soums are also divided into smaller groups as “Bag” which is the lowest administrative unit in the country.

Mongolia is a democratic parliamentary republic. The parliament with unicameral legislature (State Great Khural) has 76 members, elected for a four-year term. The number of female Parliament members was 5 in 2004, while it reached 13 in 2020, an increase of 2.6 times. In 2020, 217 (19.6 percent) of the representatives

¹ Mongolia's Initial Biennial Update Report



elected to Aimag, capital city and district representatives of citizens representative khural were women and 890 (80.4 percent) were men.

The total population of Mongolia in 2021² was 3 409.9 thousands, an increase of 60.7 thousands (1.8 percent) from the previous year. In 2020, the number of households reached 908.7 thousands, of which 67.3 percent was living in an urban area and 32.7 percent was residing in a rural area.

The role of the land use and agricultural sector in Mongolia

The land use and agricultural sector comprising livestock and arable farming, forestry, hunting and fishing sub-sectors is the dominant sector to the country's economy, cultural heritage, food and agriculture production, which represents 13 percent of total gross domestic product (GDP) (80 percent livestock, 20 percent crop production), 5.6 percent agricultural export products, and 73 percent of Mongolian land is agricultural land. According to National Statistical Office's annual employment survey, the sector employs 276.5 thousand people or 23.8 percent of the 1.16 million total labor force in 2020³. The gender segregated data shows that 154.2 thousand men (55.8 percent) and 122.3 women (44.2 percent) were employed in the land use and agricultural sector.

Livestock production accounts for almost 80 percent of Gross Agricultural Product, plays a key role in the country's economy with primary production of meat, milch and fiber, and other goods and services. The role of the livestock sector continues to expand and it is demonstrated by the increasing trend in gross livestock output for the period 2003-2022 (NSO, 2022). About 80 percent of Mongolia's total land area, equivalent 127 million ha land are used for extensive livestock husbandry on state owned pasture which is decreased to 110 million ha since 1964⁴ until now. The number of herder households is increasing from 146 000-181 100 between 2012-2020 each 3-4 household members in average, which means that around 650 thousand people (20 percent of total population) live in herder households in 2020.

The number of livestock was quite stable around 20-25 million during the socialist system in the last century. Then since mid-1990, after privatization of livestock sector, it has been increasing continuously and reached to 91 million at the end of 2022, which is once again a new record high in stocking rate (3rd National Communication Mongolia).

In 2020, the contribution to GDP from the agricultural sector accounted for 13 percent, that includes a share 14.6 percent from Mongolian arable farming sub-sector with 1498 business entities and 16.3 thousand households in crop and vegetable production. Nearly 90 percent of the households have less than 1 hectare land concessions. Just 1 percent of Mongolia's land area can be considered suitable for growing crops that are mainly cereals and but with some potatoes, fodder crops and vegetables.

2.2 CLIMATE CHANGE IMPACTS, RISKS AND VULNERABILITIES

Mongolia is one of the most vulnerable countries⁵ to climate change due to its geographical location, climate, and the fact that its agricultural sector is dependent on the weather and climate as compared to other climatic regions of the world. Over the past 80 years, the average annual temperature in the country has increased by 2.25 °C, which is higher than the global average. Over the last 45 years, the number of cold days has decreased by an average of 15 days, and the number of hot days has increased by 24 days. Mongolia is projected to be dry and hot, while winter will be milder with more snowfall. But the intensity of drought and harsh winter (dzud) is expected to increase because of increase of winter precipitation in the form of snow and

² National Statistics office (NSO)

³ National Statistic office of Mongolia (NSO)

⁴ CBIT project report, Assessment of productivity of pastureland species and livestock productivities, IRIMHE 2022

⁵ Third National communication of Mongolia



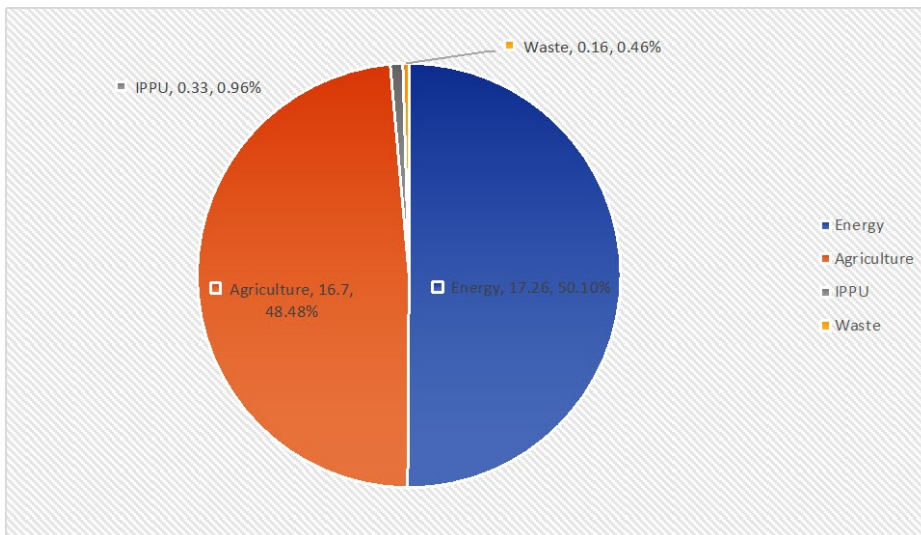
windstorms (3rd National Communication of Mongolia). Additional changing climatic conditions, such as from several days of continuous rain to sudden heavy downpours, dry windstorms, thunderstorms and lagging seasonal starts pose significant challenges both to traditional nomadic livelihoods and arable farming in Mongolia. Shifting seasonal patterns have also given rise to extended insect and animal disease outbreaks across many of Mongolia's ecological zones.

Climate change effects that live weight, meat and wool yields of animals have a decreasing trend. Similar trends also to appear in sheep and goat's measurements cases. On the other hand, due to climate change, plant productivity and yields much weakened in last twenty years in most parts of Mongolia. Especially in the central part of the country as well as in western part of the eastern region, the plant productivity has decreased by 5-13 percent in 1961-1990.

Primarily rainfed, plant production is becoming more unsustainable as precipitation patterns change, and increasing investments in irrigation are further stressing already limited water supplies. Consequently, resilience and adaptive capacity of traditional networks and land use systems to cope with climate variability/extremes are weakening, while frequency and magnitude of climate variability and land use intensity are in rise, what enhance vulnerability of the Mongolian rangelands, livestock, and people.

Agriculture, Forestry and Other Land use (AFOLU) sector are estimated to produce 21-37 percent of global net anthropogenic GHG emissions, while Mongolian agricultural sector was accountable for 48 percent of total GHG emissions in Mongolia (Figure 2). According to the first Biennial Update Report, the GHG emissions in 2014 from the agriculture sector were 16,726.98 Gg CO₂ equivalent which means that the agriculture sector is the second largest emission emitter after energy in Mongolia. The particular challenge lies in the fact that the portion of livestock enteric fermentation alone contributes 57.3 percent to emissions from agriculture.

Figure 2. The share of each sector in total greenhouse gas emissions of Mongolia (million-ton CO₂-eq., percent)



Source: Ministry of Environment and Tourism, Mongolia. 2018. *Third National Communication of Mongolia*. Ulaanbaatar. Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/06593841_Mongolia-NC3-2-Mongolia%20TNC%202018%20print%20version.pdf

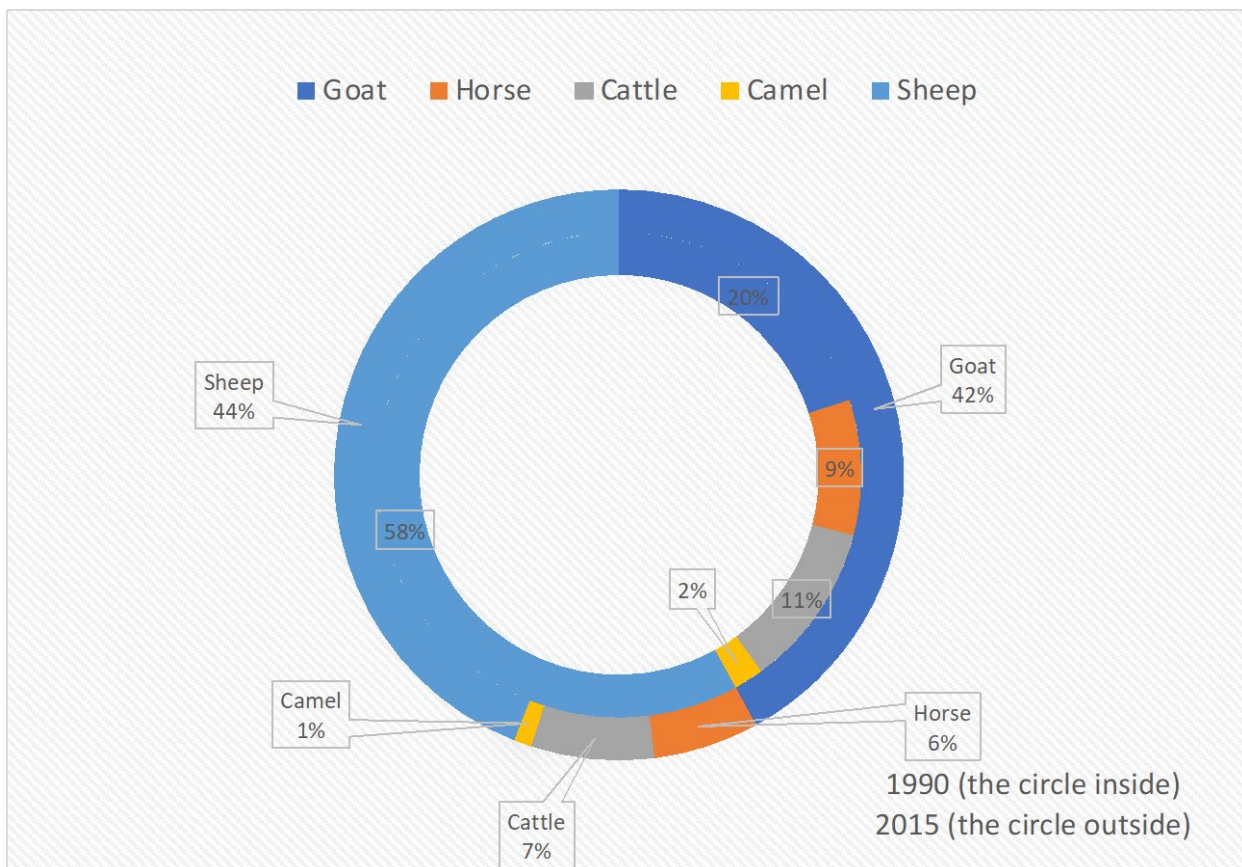


The number of livestock was quite stable around 20-25 million during the socialist system in the last century. Then since mid-1990, after privatization of livestock sector, it has been increasing continuously and reached to 91 million at the end of 2022, which is once again a new record high in stocking rate (3rd National

Communication Mongolia). Thus, the livestock sector has been facing massive overgrazing and desertification due to the steady increasing livestock number since the mid 1990s with changing herd composition within and between livestock species (Figure 3).

The figure shows that massive increased goat number due to demand of cashmere market, which is made up a significant portion of herder 's income. Besides to the exceeding carrying capacity over 65 percent of pastures, increases in temperatures and reduced summer precipitation limit regeneration of pasturelands, and reduce feed quality.

Figure 3. Livestock structure changes between 1990 - 2015



Source: Ministry of Environment and Tourism, Mongolia. 2018. Third National Communication of Mongolia. Ulaanbaatar. Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/06593841_Mongolia-NC3-2-Mongolia%20TNC%202018%20print%20version.pdf

Water resources

Mongolia's approximately 4,000 rivers are supplied by rainfall, snow and glacial runoff, the last of which contributes 15–20 percent of total annual water supply. Groundwater is an important source of water for



agricultural, industrial and domestic use, but population pressure and increased withdrawals for agriculture and industry (accounting for 76 percent of all water use in Mongolia) are already driving unsustainable use of limited aquifers. Increasing temperatures and changing rainfall patterns worsen low groundwater recharge rates and reduce surface flows of rivers, negatively impacting the quantity and quality of Mongolia's water supply. Agriculture was traditionally rainfed, projected increased seasonal variability of rainfall and higher evaporation rates translate into increased needs for irrigation schemes to support improved crop production.

2.3 CLIMATE CHANGE PLANNING AND IMPLEMENTATION

2.3.1 Institutional Arrangements

The Ministry of Environment and Tourism (MET) is the government body responsible for environmental issues including climate change in Mongolia. The Government of Mongolia is committed to strengthening the institutional and technical capacity at national and local level to advance the process to formulate and implement NDC process as a vehicle towards addressing climate change challenges and risks and to achieve GHG mitigation targets.

Responsibilities and Roles of the MET Climate Change Department:

The key responsibilities of the MET Climate Change Department for climate change issues are as follows among others:

- national and international legal and policy framework on climate change and its implementation and reporting;
- development and implementation of actions, projects and programmes on climate change;
- projects and programmes on GHG mitigation, low carbon and clean development; development and implementation of projects and programmes, awareness raising activities in this field;
- projects and programmes on risk reduction and adaptation to climate change, climate-resilient development, initiation and implementation of projects and programmes, awareness raising activities in this field;
- public awareness, knowledge sharing, capacity building activities in climate change, monitoring and evaluation, MRV and implementation and tracking system of projects and activities, and policy and planning documents;
- database and information platforms, and so on.

Other responsibilities include,

- i. *Identification and classification of areas and themes relevant to climate change in Mongolia, such as:*
 - studies on climate change and its projections in Mongolia;
 - climate change impacts, vulnerabilities, risks associated with climate change;
 - adaptation and resilience building issues;
 - GHG monitoring and inventory;
 - GHG mitigation and low-carbon development pathway;
 - strengthening legal and policy framework and institutional arrangements;
 - awareness raising and capacity building, information and knowledge sharing activities;
 - stakeholder engagement and involvement, gender issues;
 - climate financing.



ii. *Regulation and coordination of fields and areas of climate change among the international organizations and partner countries*

The MET emphasizes on the importance of identifying the direct or in-direct organizations and international implementing organizations and partner countries with whom to work and collaborate in which areas and themes of climate change related activities and projects considering their interests and responsible areas. This will provide an opportunity to avoid any duplications and gaps in climate change subjects in Mongolia. This is to provide an overall coordination of activities and responsibilities among the implementing international partners.

iii. *Coordination of activities and projects on climate change and their inter linkages to avoid any duplications and gaps.*

The MET, and its Department of Climate Change has the obligation of coordinating activities and projects on climate change and their inter linkages, to avoid any duplications and gaps. To implement this responsibility, MET works closely with the Ministry of Economic Development and National Climate Committee. In addition, the National Committee on Climate Change and Desertification chaired by the Prime Minister of Mongolia is an important counterpart of the ministry.

iv. *Provide transparencies and reporting, M&E and MRV, and tracking system*

The MET conducts the performance and implementation review of activities, projects and plans in the field of climate change. Within this responsibility MET collects and analyzes the reports and results, outcomes of completed and ongoing projects and develops a database, as well as follows up on the application and implementation of results and outcomes of activities and projects on climate change. MET has to provide the transparency and reporting of actions and apply an information platforms and tracking systems of programmes, projects and activities.

v. *Dissemination and implementation of findings and results, outcomes of national and international projects and programmes,*

The key findings, results, outcomes of national and international projects and programmes should be disseminated and circulated to the relevant sectors and sub-sectors for implementation. To do that MET works closely with the completed projects and gets assistance and, financial and technical supports.

In addition, the MET provides equality and involvement of the trainings and workshops and discussions among the aimags and soums, and stakeholders to avoid overlapping of activities by different projects.

vi. *Provide national and international stakeholders and partners with basic information on policy and planning documents, national development priorities, short- and long term goals and targets, and so on.*

MET has an obligation of providing legal and policy, and planning documents approved by the government and government authorities with the projects, international organizations and project developers through its official website, databases and platforms. The formal information should be referred to an official sources from government and research institutions, universities and academia.



2.3.2 Key Policies and Frameworks

The policies and frameworks relevant for implementation of the climate change actions are composed of multiple laws, including the 2001 Law on Energy, 2007 Law on Renewable Energy amended in 2015, 2015 Law on Energy Efficiency (also known as the Law on Energy Conservation) and 2012 Law on Air. In September 2014, the President of Mongolia approved the Presidential Decree No. 121 on Climate Change, aiming to intensify the implementation of the National Action Programme on Climate Change and other climate-change-related policies. The Decree addresses adaptation measures, promotion of clean technologies, efficient use of natural resources, renewable energy, participation in international negotiations, access to international financing and awareness-raising. It also determines that financial resources must be allocated annually by the state budget for implementation of the Decree.

Amid rapidly increasing desertification and impacts of climate change, the President of Mongolia, Khurelsukh Ukhnaa, launched a nationwide movement to plant a billion trees by 2030 as part of Mongolia's commitment to the Sustainable Development Goals (SDGs), as well as ways to fight climate change, desertification, deforestation, and food insecurity. The government has drawn up a three-stage plan for the campaign, with a preparatory phase from 2021–2024, an intensification phase planned for 2024–2026, and a sustainable implementation phase to be carried out in 2027–2030. The campaign is focusing on bringing PPTs to improve reforestation, and forest management, and pushing the tree-planting programme forward.

Please refer to the section 6 to see the list of supporting key policy documents.

2.3.3 Capacity Needs for Climate Action in Land Use and Agriculture Sectors

The needs for capacity development for the NDC implementation for AFOLU sector is essential as there are numerous national and international activities and projects to address climate change challenges and risks. Additionally, there is a need to establish a climate resilient and low carbon development paradigm in Mongolia. There is also a need for well-coordinated and clear guidance from the key ministries in this area. Below are the most discussed issue under capacity needs in Mongolia based on the feedback that are commonly received from the key stakeholders:

- Lack of cooperation and coordination among entities. The monitoring of the implementation of the programmes and policies of AFOLU sectors are under the State Specialized Inspection Authority and thus, it will require enhanced coordination among the government agencies on monitoring and evaluation.
- Lack of professionals in this specific field. Incentives need to be created through capacity building initiatives and is essential to attract professionals specialized in M&E of projects and programmes.
- Improving the Private Sector Engagement (PSE) strategy on capacity building and implementation with piloting the capacity building activity for PSE; there is limited resource mobilization capacity and PSE in the implementation process of climate actions at all levels.
- Lack of capacity to adopt and sustain the outcomes of the projects/programmes implemented by the donors.

2.4 RELEVANT PROJECTS AND PROGRAMMES

Existing and planned projects and programme.

Existing and planned projects and programmes are in the Annex 1.



3. CLIMATE ACTION REVIEW

3.1 METHODOLOGY

The Climate Action Review (CAR) matrix was developed under Activity 1.1.1 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 land use and agriculture.

The UNDP Mongolia hired a national consultant for developing the CAR Matrix and ToC and to support the inception phase.

The programme inception phase was composed of 5 successive stages: 1) desktop review, 2) stakeholders' consultations, 3) climate actions review and assessment for transformation potential, 4) designing theory of transformative change and 5) validation inception meeting. The national consultant worked in close collaboration with the UNDP and FAO Country Offices Focal Points as well as global backstoppers from 27 July to 15 December 2021.

In the first stage as part of the desktop review, around 40 relevant background documents including national policies, and government programmes and plans, as well as related survey reports were reviewed with regard to climate change adaptation/mitigation in the agricultural and land use sector (see section 6). The climate action review matrix was compiled and analysed by using of the background documents namely Mongolia's NDC 2020, Vision-2050 long-term development policy, National policy on food and agriculture, National Policy of Intensified Livestock Husbandry, Livestock breeding strategies 2020-2030, Government Action Plan 2020-2024 and other relevant documents as can be found in section 6).

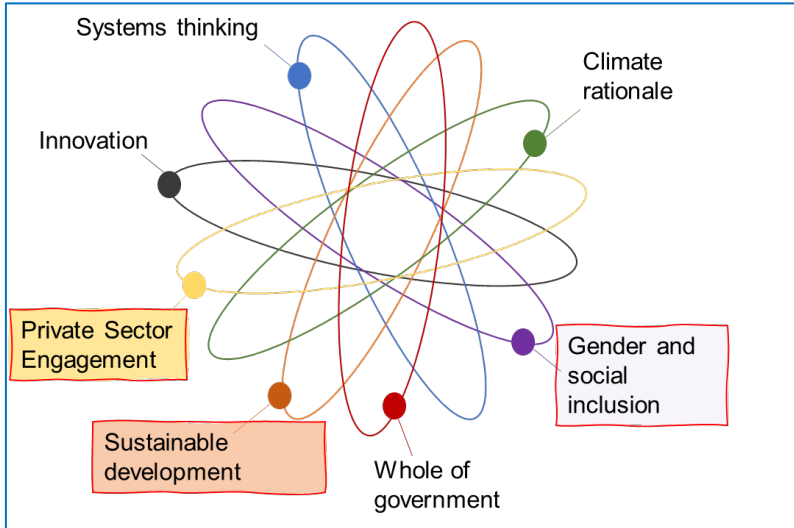
In the second stage, technical planning meetings were organised with key government officials and project focal points to co-identify and discuss the priority transformative climate actions and co-develop the Theory of Change of the Scala programme in Mongolia. On September 9, 2021, preliminary results on the baseline survey and CAR matrix were presented during a virtual planning workshop with the key stakeholders from the MoFALI, MET, MoF, National Development Agency, Hydro-Meteorological and Environmental Research Agency, Institute of Meteorology and Hydrology, Agency for Land Management, Geodesy and Cartography, experts from relevant projects as well as global Backstoppers (See Annex 4). In addition to the technical consultation meeting, four consultation meetings for work progress and content development were held with UNDP and FAO focal points of the SCALA country team.

In the third and final stage, the CAR matrix was finalised through the review of selected 14 adaptation/mitigation actions (see Annex 2) in the land use and agriculture sector in the NDC for 'transformative potential' by comparing each action against the seven dimensions. The seven mutually reinforcing elements are critical for achieving adaptation and mitigation goals in the land use and agriculture sectors and generating transformative systems change within and beyond the food system: climate-informed solutions, systems-



thinking approaches, whole-of governance, private sector engagement, gender equality and social inclusion, co-benefits for sustainable development and innovation.

Figure 4. Seven dimensions of transformation under SCALA



Source: Authors

These 14 climate actions with transformative potential were defined in the agricultural sub-sectors: animal husbandry and arable farming sector within the framework of the governmental action plan for the implementation Mongolia’s NDC (Governmental resolution 407, 2019). In brief, development of the CAR matrix in Mongolia entailed the following activities, as was undertaken by the national consultant:

1. desk review and compilation of all relevant background material;
2. source filtering and analysis according to the CAR matrix questionnaire;
3. translation of CAR matrix as basis for communication with stakeholders;
4. participation in the technical virtual planning meetings with selected national stakeholders introduce and discuss the CAR matrix;
5. discussions and meetings on the progress and results with the country office team;
6. virtual discussions with the SCALA global team and other related national officials;
7. final review and submission to the programme team in accordance with stakeholders’ recommendations;
8. presentation of the CAR matrix and ToC at the SCALA Inception workshop.

The outcomes of the CAR matrix screening tool and follow up discussions were used for refining and validating Mongolia’s country workplan. Please see Annex 2 the scoring the transformative potential (0-10) of the priority climate actions.

Explanatory table for the rank order of scores

Transformative potential (scale from 0-10)	
Very high	7.5-10
High	5-7.4
Moderate	2.5-4.9
Low	0-2.4



3.2. ANALYSIS OF CLIMATE ACTION WITH TRANSFORMATIVE POTENTIAL

The Government of Mongolia approved its NDC Action Plan in 2019 and updated its NDC in 2020, and now prioritizes adaptation actions in animal husbandry, pastureland management and arable farming. The key priorities (adaptation and/or mitigation) in agriculture and land use sector are divided in animal husbandry on the open access pastureland and arable farming sub-sectors.

Under animal husbandry and pastureland management, adaptation priorities focus on maintaining balance in ecosystems and strengthening legal frameworks. The NDC also highlights the need for sustainable use of pasturelands by increasing forage cultivation and water supplies for livestock, as well as the enhancement of disaster management systems against drought and dzud (summer drought followed by a severe winter leading to livestock loss). On arable farming, the NDC outlines plans to improve legal frameworks to overcome climate change adaptation challenges and aims to introduce advanced water and labor efficient technologies in the production of vegetables, fruits and berries to enhance productivity. Additional adaptation measures include fencing and planting forest strips around arable crop lands and introducing soil-conserving zero tillage methods with straw mulch to retain soil moisture and fertility.

Key mitigation priorities include limiting and reducing the number of livestock in accordance to the pasture carrying capacity while enhancing livestock quality and herd structures, improving the management of livestock manure, protecting pastureland soil and establishing forest strips around arable lands to preserve soil moisture and reduce wind and water erosion.

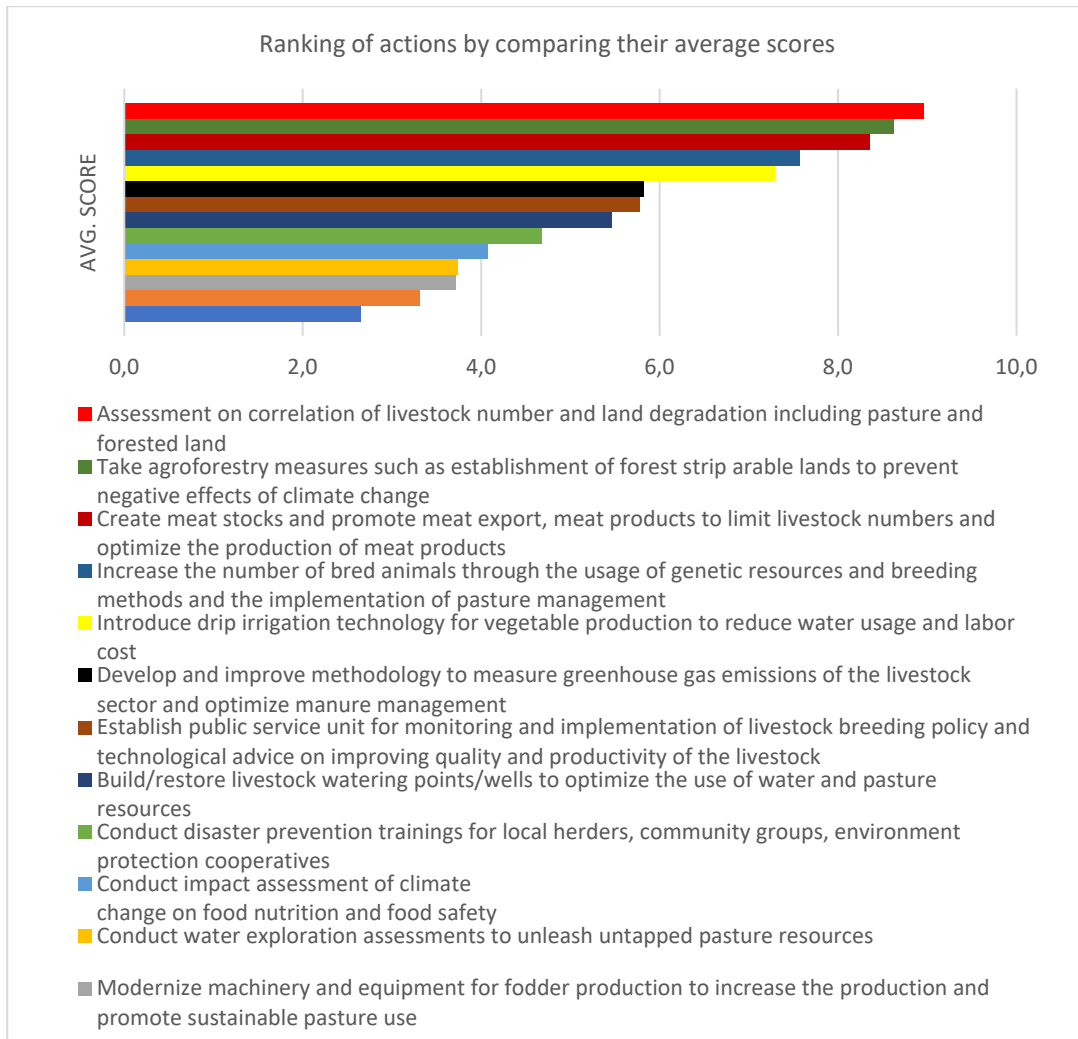
The 14 climate actions, that are reviewed as part of the CAR matrix exercise for their transformative potentials, were defined in the NDC as well as the governmental action plan for the implementation Mongolia's NDC (Governmental resolution 407, 2019). The findings of step-by-step review process show that eight of the 14 climate actions have high transformative potential with an average score above five points (see Figure 3 and 5).

Out of the eight climate actions, the following five actions with high average scores are selected to be the focus areas under SCALA in Mongolia:

1. Assessment on correlation of livestock number and land degradation including pasture and forested land.
2. Establishment of forest strip arable lands to prevent negative effects of climate change (wind and water erosion as example).
3. Creating meat stocks and promote meat export, meat products to limit livestock numbers and optimize the production of meat products.
4. Development and improvement of methodology to measure GHG emissions of the livestock sector and optimize manure management.
5. Building/restoring livestock watering points/wells to optimize the use of water and pasture resources.



Figure 5. Climate actions with high transformative potentials

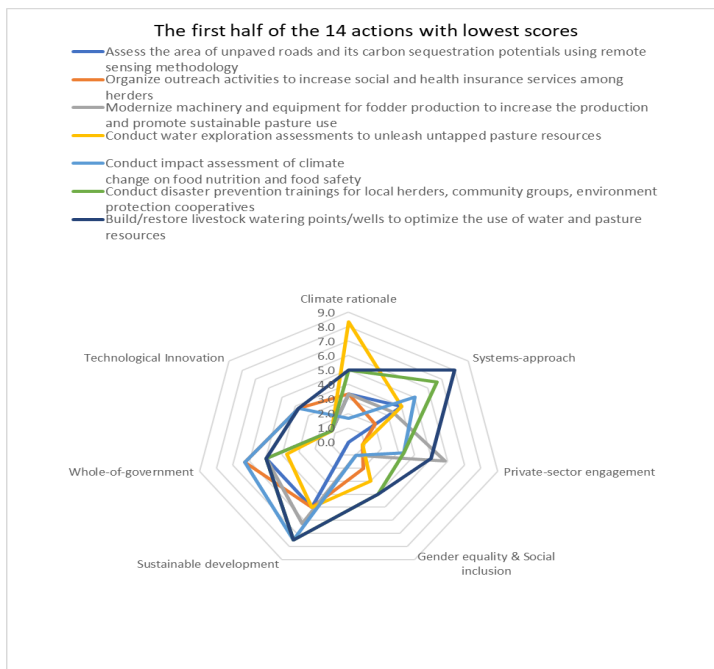


Source: Authors

These five selected climate actions with high transformative potentials are reflected in the country's work plan (CAR matrix full version is attached in Annex 5). A summarized overview of climate actions scored with the CAR screening tool through the 7 dimensions are illustrated in the figures 4 and 5 below.

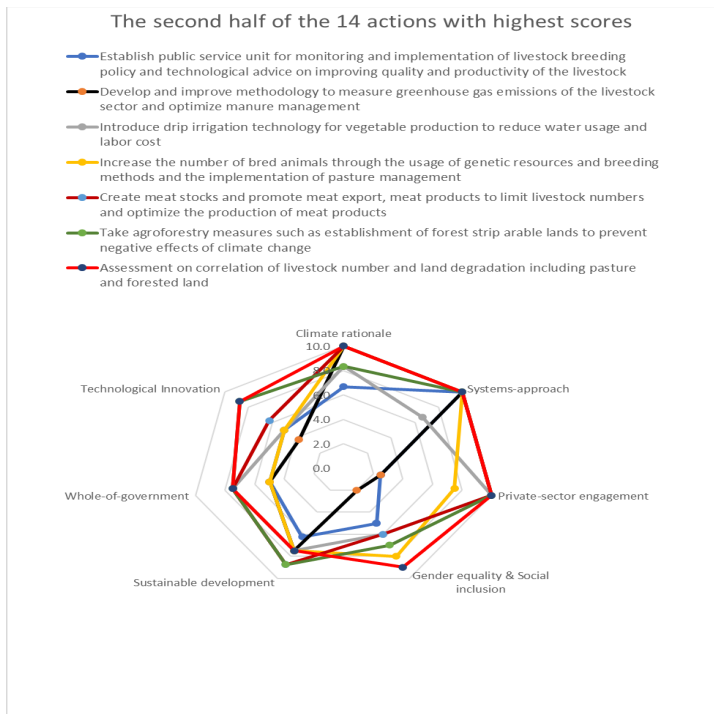


Figure 6. Seven climate actions with lowest scores



Source: Authors

Figure 7. Seven climate actions with highest scores



Source: Authors



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

4.1 INCEPTION WORKSHOP

The Inception workshop was held on December 9, 2021. Workshop participants consisted of representatives of key stakeholders, line ministries and national agencies, representatives of international development agencies, national climate change entity, non-government and civil society organizations, including gender and climate change focal points for the agricultural sector. Planning and preparation of the workshop was done by the country office with the support of UNDP and FAO global backstoppers (see Annex 4: Agenda and List of Participants).

The overarching purpose of the inception workshop was to convene and gather inputs from key stakeholders on activities undertaken during the inception phase. These included a baseline survey, a review of climate actions outlined in Mongolia's NDC and NDC Action Plan 2019, and to assess the transformative potential and the subsequent development of a preliminary workplan.

The specific objectives of the inception workshop were:

- To introduce the SCALA programme, including the objectives, approach and expected results to the government and all relevant stakeholders.
- To present and discuss the initial findings of the SCALA baseline survey results, climate action review matrix and Theory of Change.
- To provide an overview of the preliminary workplan for the SCALA programme in Mongolia and facilitate a discussion on the priorities/recommendations.

The inception workshop was opened jointly by Mr. Unenbat Banya, Director of the Department of Arable Farming Policy Coordination and Implementation, MoFALI, Ms. Nashida Satar, UNDP Deputy Resident Representative, and Mr. Vinod Ahuja, FAO Resident Representative in Mongolia.

Following the opening remarks, Ms. D. Saruul, project coordinator of climate projects, UNDP Mongolia, presented an overview of the SCALA programme, followed by presentations by SCALA national consultants Mr. Batsuuri and Ms. Bayarkhuu. on the preliminary results of baseline survey, climate action review matrix and theory of change respectively. Next, an interactive session was organized where all the workshop participants were divided into two groups to discuss and report back in plenary findings of the discussion groups on the chosen climate actions:

- a) Correlation of livestock number and pasture land degradation;
- b) Establishing forest strips around arable crop lands.

The participants of the two break out groups were asked to gather inputs by doing quick barrier and risk analysis as well as defining the business opportunities and leveraging points for transformation on the topics according to the given work instructions. Jamboard was used for collecting the comments and thoughts of the group discussions.



Figure 8. Reporting back in the plenary findings of the group discussions



Photos credit: ©FAO/Dashnyam

2-р баг: Мал аж ахуйн салбарт нэгдсэн удирдлагын менежментийн өөрчлөгдөх хөшүүргийн цэгийг олох дадлага

Уур амьсгалын үндэслэл бий болгох	Хэрэгжиж байгаа олон улсын болон үндэсний стандартыг зөрүүгүй болгож ойлгох	Дата өгөгдөл, хяналт мониторингийн системийг сайжруулах	Хувийн хэвшлийн оролцоог хангах, нэмэгдүүлэх
<ul style="list-style-type: none"> МАА салбарт байгууллын төвшин, менежментийг хэрэгжүүлэх (Байгалийн орныг ухуур хуулийн 9-р бүлэг) Бэлчээрийн бие даасан хуультай болох Малын хөлийн талаарх зорилтын зоржүүлалт амьдрал тавих систем бий болгох 	<ul style="list-style-type: none"> Уур амьсгалын үндэслэл бий болгох, Агро өрн аж ахуй, Газар тариалан, Төвөр зам, авто зам, тал заагт ойн зурсал, сун ямагт цэцэрлэгт хурьцан Агро өйжүүлэлт хийхийг Газар тариалан эрхэлгээчээ үрэг хэрэгжүүлэх, Малчид болон фермер хангалалт ойн зурсал байгуулах УАД дахь зохион үйлдвэрлэлд оролцоулах, Малын хөлийн талаарх зорилгыг ижилжүүлэх 	<ul style="list-style-type: none"> Малын махны үйлдвэрлэлд саад болон буй эрүүл бусийг бий болгох Олон улсад мах махны бүтээгдэхүүний ахуйг хангах Малын өргөтгөлтөд өртөгтэй, антибиотик, улаагдал, антибиотикгүй хийлгэх Салбар хоорондын зарчлааг бүртгэгдүүлэх, бүтээгдэхүүнд пестицид, антибиотик, улаагдал, антибиотикгүй хийлгэх Системүүд хоорондоо хөрвөж боломжтой бүтээх Орон нутгийн мэргэжилтнүүдийн оролцоотой хуульчдын датны нэгдсэн үр дүнг буцаж орон нутганд мэдээлж байх 	<ul style="list-style-type: none"> Төр хувийн хэвшлийн оролцоог кластерээр 35 Бэлчээрийг ашигласны төлбөрийг хөрсний сэргээлтэд зарцуулах Бэлчээр газар тариалангийн ойн зурсал байгуулалт хангалалт олгох, хөрсний биологийн аргаар био бордоо г.м. Хувийн фермер ХХК-г өмчлөх үзвэл, үндэсний оролцоог байгуулалт хангах, кластер хөлийн ажиллагааг дэмжих Орон нутганд МАА-н нэгдсэн ТББ-н үүсгэлт хөгжлийг дэмжих, орон нутгийн иргэдэд мэдээлж байх

1-р баг: Мал аж ахуйн салбарт нэгдсэн удирдлагын менежменттэй холбоотой саад бэрхшээлийг тодорхойлох дадлага

Чадавхи бэхжүүлэх	Мэдээ, мэдээллийн хүртээмжтэй байдал	Бодлогын уялдаа
<ul style="list-style-type: none"> МАА-н мэдээллийн санг нэгтгэх Нийгмийн асуудлыг шийдэх Мэргэжлэн мэргэжилтэн тогтвортой ажиллуулах (улс төр, цагийн ажлын хуваарилалт, ачаалал) Мэргэжлийн бус, орон тосо байдаг, гач эрх мэдэл сул 	<ul style="list-style-type: none"> Мэдээллийн эх уусуур хангалалттай болохыг ашиглах систем дутмаг, бий болгох Нэгдсэн мэдээлэл солилцоо платформ бий болгох (ж нэ: www.eis.mn) 	<ul style="list-style-type: none"> Эрхгүйн эрхчин Газар тариалан, бэлчээрийн МАА-н өргөтгөлийн нэгдсэн ТББ-г үүсгэж орон нутгийн иргэдэд мэдээлж байх Урт хугацааны төлөвлөлт дутмаг
<ul style="list-style-type: none"> Байгууллагын хамтын ажиллагаа Ижил төстэй байгууллагын хамтын ажиллагаа дутмаг Шу болон үйлдвэрлэлийн уялдаа холбоо, уялдаа холбоо практикт, үйлдвэрлэлд нэвтрэхгүй байна Салбар хоорондын уялдаа сул ГЗБ, Бэлчээрийн ургамал хангалалт асуудлууд орон нутганд төлөвлөлт ч зохион байгуулалт нь заргалуу газарт Хяналт, судалгаа зарчлааг зөвхөн байгууллагын дунд, МААГ (мал эмчлэлийн өргөмж газар) г.м. Бэлчээрийн танди судалгааны амьдрал, төсө нь боловсролын амьдрал хангалалт нь ХАА-д 	<ul style="list-style-type: none"> Талуудын оролцоог хангах Салбар хоорондын уялдаа сул Мэдээлэл солилцоо, уялдаа Мэдээллийн нэгдмэл байдал 	<ul style="list-style-type: none"> Хөрөнгө оруулалт Тогтмол зардал байхгүй (төсөв, СЯ) Төсөл дусаад санхүүжилт зогсодог

Source: Authors



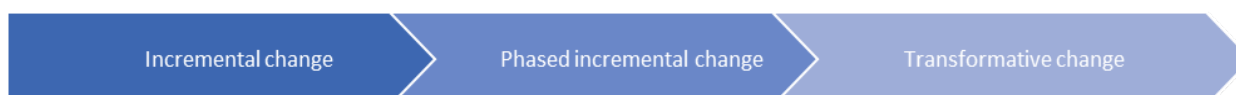
In session three of the workshop, the participants had the opportunity to clarify and discuss about the findings of the baseline survey, climate action review and Theory of Change. The two SCALA national consultants were present to answer and clarify any queries. Later, Mr. Sergelen, SCALA focal point, FAO Mongolia, introduced the preliminary workplan until 2025 with insights and perspectives on the potential activities. The closing remarks were delivered by Mr. Eson-erdene, Head of the Division of Soil, Plant Protection and Seed and Variety, MoFALI, with summary of the key points including any necessary support for the programme implementation by the line ministries.

The following main outcomes were achieved through the inception workshop:

- All key stakeholders of the programme:
 - are informed about SCALA programme, including the objectives, approach and expected results;
 - gained an understanding of the baseline survey results, climate action review matrix and Theory of Change;
 - discussed and reviewed the Theory of Change of the programme;
 - validated the proposed general workplan of the SCALA programme in Mongolia.
- Suggestions and recommendations gathered during the consultative session were used to refine the country-level workplan and to define priority areas for Mongolia.

4.2 THEORY OF TRANSFORMATIVE CHANGE

Transformative systems-level change requires fundamental shifts in governance, infrastructure, economic systems and models, power relations and behavior. Considering the challenging programme objective under SCALA, an incremental and incremental phased approach shall be applied in Mongolian context, in which incremental actions gradually give way to transformative and transformational actions, supported by appropriate policies, pilots and the creation of enabling environments (adopted from WRI, 2018; IIED, 2019).

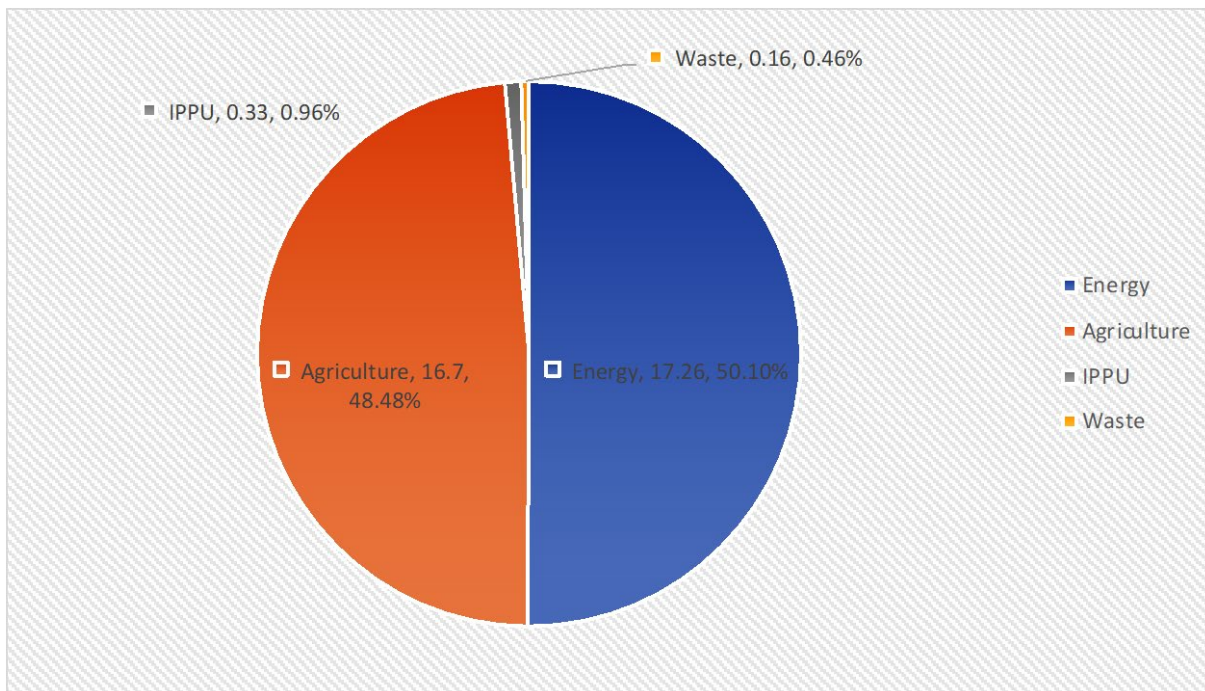


System identification and analysis

According to the first Biennial Update Report (BUR1), the GHG emissions in 2014 from the agriculture sector were 16,726.98 Gg CO₂ equivalent which means that the agricultural sector, with a share of 48.51 percent of the total emissions, is the second biggest GHG emitter after energy sector.



Figure 9. The share of each sector in total greenhouse gas emissions of Mongolia (million-ton CO₂-eq., percent)



Source: Ministry of Environment and Tourism, Mongolia. 2018. *Third National Communication of Mongolia*. Ulaanbaatar. Available at: https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/06593841_Mongolia-NC3-2-Mongolia%20TNC%202018%20print%20version.pdf

Based on the CAR matrix review, “implications of newly adopted livestock tax law on livestock herding practices in Mongolia” is identified as main climate action that has the potential for transformative systems change in the land use and agriculture sector.

Based on the stakeholder consultations, The system identified as the focus of SCALA is the integrated livestock management system (commonly referred to as integrated management system). SCALA will apply an “agroecology” approach to examine the implications of the livestock law on livestock herding practices, with the aim of developing recommendation and guidelines through multi-stakeholder participation for achieving proper stocking rate on rangeland as well as formulating recommendations to foster uptake herding practices that meet environmental, social and economic goals. The agroecology approach will entail conducting complementary system assessments and activities on: a) surface water collection system; b) feasibility of forest strip establishment; c) adaptive potential of the fruit and berry tree varieties; and d) carbon sequestration potential of pasture land. Examining these interrelated issues within the integrated management system, will support more transformative approaches.

The integrated management system has been facing phenomenal socio-economic, ecological and governance problems since the mid 1990s which marks the start of overgrazing and pasture degradation.



The current problems generated from the system characterized by the challenges within:

1. Socio-economic system: it is necessary to increase awareness in public opinion towards overgrazing / sustainable pasture use in the presence of Climate Change.
2. Ecological system: Herder's perception for other land uses (biodiversity, forest, crop and vegetable production) and the concept "one-health" are generally comprised due to the lack of legal and institutional framework.
3. Governance system: there is increasing awareness on climate change in political sphere. However, the actual implementation of national and regional measures and programmes on sustainable herding practices are lagging behind.

Climate risk context

Mongolia faces rates of warming far higher than the global average, with average temperatures already increasing by more than 2 °C between 1940 and 2015 and future climate projections suggesting warming could exceed 5 °C by the end of this century. The climate change impacts of 5 °C warming amplify existing stressors and will be devastating to human health, animal species, livelihoods and ecosystems.

Agriculture is the primary source of income for 40 percent of Mongolians, both in rural and peri-urban areas. Changing climatic conditions such as from several days of continuous rain to sudden heavy downpours, dry windstorms, thunderstorms and lagging seasonal starts pose significant challenges both to traditional livelihoods and arable farming in Mongolia. Primarily rainfed, plant production is becoming more unsustainable as precipitation patterns change, and increasing investments in irrigation are further stressing already limited water supplies. Staple crops include cereals, vegetables and potatoes for domestic consumption. Rainfed wheat production is projected to decline by 15 percent by 2030 due to climate change.

About 80 percent of Mongolia's total land area, equivalent 127 million ha land are used for extensive livestock husbandry on state owned pasture. Livestock production accounts for almost 80 percent of the food sector, with meat, dairy, wool, cashmere and leather goods playing a critical role in the country's economy.

Animals depend on the summer and autumn months for grazing, breeding and growth to build sufficient weight and energy to survive the harsh winters. The peak of pasture biomass has declined by 20-30 percent during past 40 years.

Climate change has had an effect on not only peak standing biomass but also spring biomass. Increases in temperatures and reduced summer precipitation, besides to the exceeding carrying capacity over 65 percent of pastures, limit regeneration of pasturelands and reduce feed quality. During the last 60 years, the proportion of high nutrient plants decreased by 1.5-2.3 times. Low nutrient plants like *Carex duriuscula*-*Artemisia* became dominant in pasture communities. These conditions translate into reduced weight and productivity of herds, making them vulnerable to severe weather conditions like drought and dzud.⁶

⁶ Drought has increased significantly at the level of 95 percent in Mongolia for the last 60 years. In fact, the drought situation has worsened rapidly in the last decade. The worst droughts Mongolia experienced was in the consecutive summers of 1999, 2000, 2001, and 2002, which affected 50-70 percent of the territory. Such long-lasting and severe droughts have not been observed in Mongolia in the last 60 years. During the past four years, about 3,000 water sources including 680 rivers and 760 lakes, have dried up. Such environmental degradation in turn has affected the level of primary production of vegetations/plants and water resources, which support livestock as well as human populations.

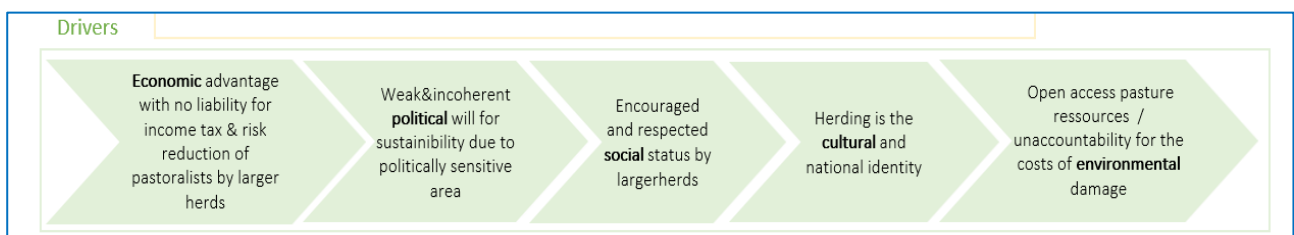
Dzud: Dzud is purely a Mongolian term. In the years 1944-45, 1967-68, 1978-79 and 1999-2002, very severe dzud occurred during which time an abnormally high number of animals were killed. During the dzud in 1944, 32.2 per cent or 8,76 million domestic livestock were killed. Also, 2.6 million (11.9 percent) livestock died in the 1967-68 dzud. Mongolian herders in particular, experienced the worst dzud in



Driver and barrier analysis

Key drivers of degradation of pastureland as resulting from overgrazing pastures are identified as:

- Economic advantage with no liability for income tax and risk reduction strategy of pastoralists by means of greater livestock numbers.
- Weak and incoherent political will for sustainable pasture management due to politically sensitive area.
- There is a long-standing practice that herders with/over 1000 head of livestock are honored by the government and thus they will have respected social status by larger herds.
- Herding is the cultural and national identity which is supported widely by the general public.
- herders' and the government's unclear responsibilities for the open access pasture resources / unaccountability for the costs of environmental damage.



Identified barriers impeding transformative change in the integrated management system for nomadic livestock husbandry:

Figure 10. Identified barriers for transformative change

<p><u>Capacity constraints</u></p> <p>insufficient finance, inadequate institutional arrangements, low technical capacity, scarce qualified specialist.</p>	<p><u>Access to data and information</u></p> <p>inconsistent/ on demand MRV systems and outdated and inaccurate data in agriculture and land use sector, lack of formal data sharing arrangement</p>	<p><u>Policy integration</u></p> <p>so far missing legal and institutional framework, insufficient law enforcement for sustainable pasture management and land use issues.</p>
<p><u>Institutional coordination</u></p> <p>weak institutional coordination and ineffective coordination mechanisms for cross-sectoral planning and implementation on climate actions</p>	<p><u>Stakeholder engagement</u></p> <p>low involvement of especially smallholders, women and marginalised groups in decision-making processes in defining and implementing NDCs, information deficit or disinterest on environmental degradation and/or climate change issues, unprofessional appointments and conduct on the public positions</p>	<p><u>Investment</u></p> <p>Lack of de-risking strategies NDC priorities such as dissemination of solutions or business opportunities, existing uncertainties, inconsistency, poor institutional support and infrastructure for market access</p>

Source: Authors

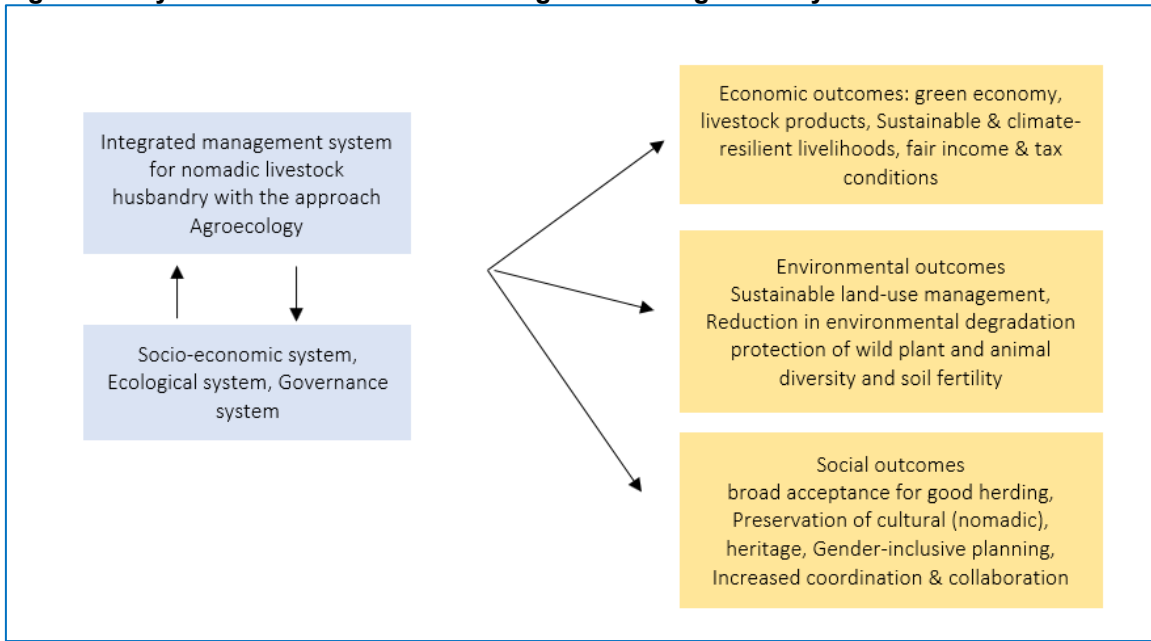
the last 30 years, in 1999-2000, where they lost more than 25 percent of the total number of their livestock, which was 10 times higher than the normal year loss (Mongolian Statistical Yearbook, 2001).



System outcomes

The anticipated system outcomes from the integrated management system through the programme implementation can be illustrated by the figure below.

Figure 11. System outcomes from the integrated management system



Source: Authors

Leverage points for transformation

Intervention points that can induce transformational change are:

- Creation of evidence base for implementation of transformative climate action in land use or agriculture.
- Integration of climate change priorities into national and sectoral planning and budgeting by strengthening of multi-stakeholder collaboration.
- Development of MRV system and improving data quality in the agriculture and land use sectors.
- Strengthening private sector engagement in the sustainable herding practices as well as associated climate actions.

Actors of change

- Herders, herding groups, cooperatives and women's group;
- National crop and vegetable farmers;
- Ministries and local government actors;
- Development partners, investors and donor organizations;
- Researchers and research institute, civil society organizations;
- Representatives of processing industry and other private sectors;
- General public.

The Mongolia SCALA Programme aspires to contribute to the medium and long-term goal of supporting transformative climate actions in the integrated livestock management system that reduce GHG emissions and/or enhance removals, as well as strengthen climate risk reduction, resilience, and adaptive capacity. In

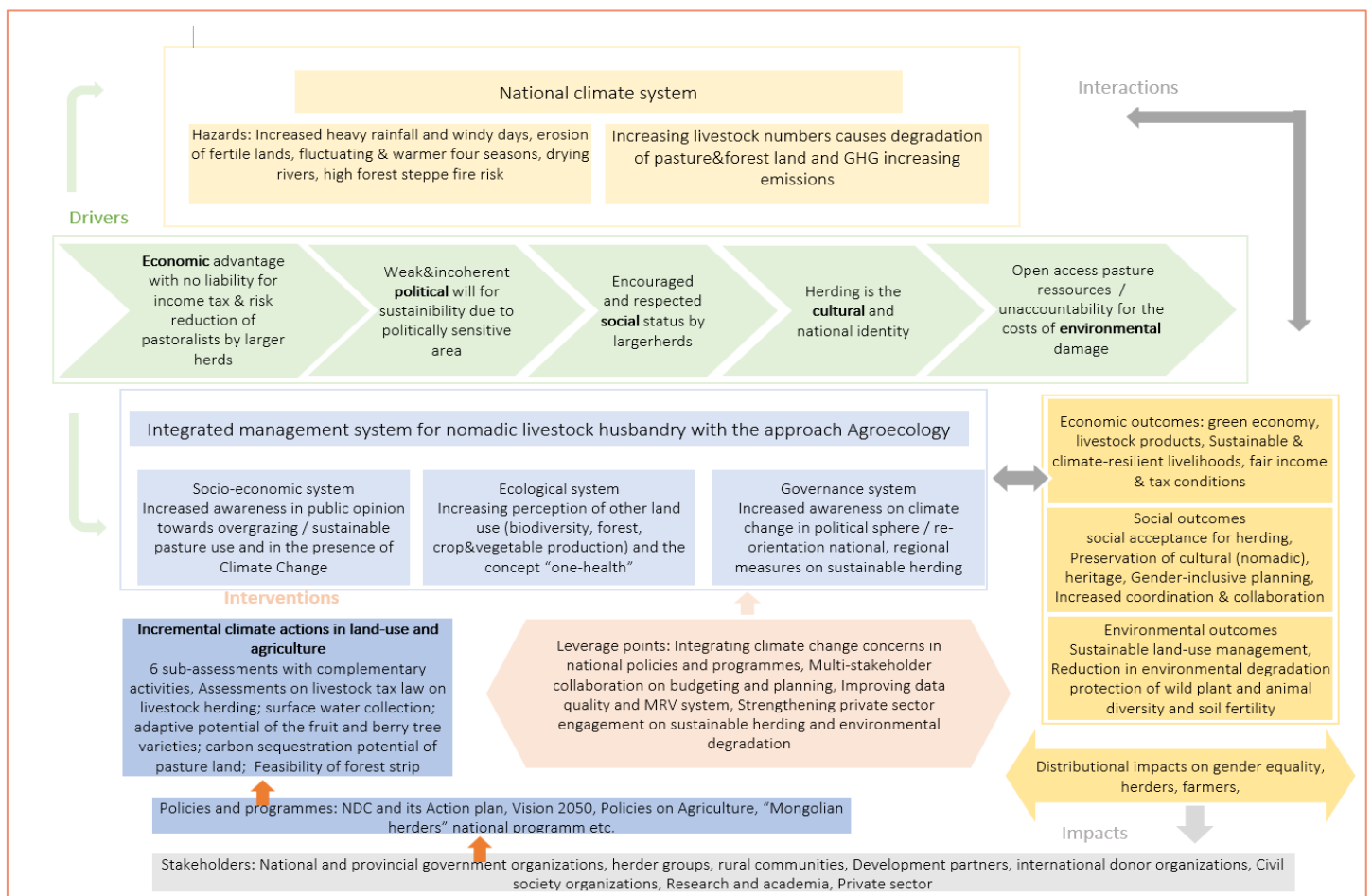


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terms of the programme-specific objective, SCALA aims to support Mongolia to have translated its NDC into actionable and transformative climate actions in land use and agriculture by applying an “agroecology” approach to assess the implications of the livestock tax law on livestock herding practices.

This will be undertaken through rigorous stakeholder consultations with special focus on the measures identified in the NDC Action Plan of the Mongolian Government in 2021. Some of the relevant actions include nomadic livestock husbandry, carbon sequestration potential of pastureland, forest strip establishment for arable farming land, surface water collection system as well as assessing the adaptive potential of the fruit and berry tree varieties.

Figure 12. Theory of long-term transformative change in Mongolia



Source: Authors



4.3 WORKPLAN

Annex 2 contains the full program results framework and baseline information.

4.3.1 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

Under Outcome 1, the necessary evidence bases shall be created for implementation of transformative climate actions in land use or agriculture, which is composed of technical reviews of planned climate actions (activity 1.1.1) and participatory systems-level assessments to define transformative and inclusive implementation options (activity 1.1.2). Activity 1.1.1, more specifically, the inception phase was accomplished through participatory technical reviews of NDC priority areas and multi-stakeholder validation workshops to build consensus on the selected “integrated management system” around the country’s nomadic herding practices with associated complementary activities and assessments in the agricultural sector.

The priority areas with high transformative potentials, validated by public and private sector actors, will be examined through participatory systems-level assessments in the field of following climate solutions:

1. Implications of the Livestock Tax Law implementation on livestock management and numbers in arable farming region and other designated pasture areas.
2. Options for surface water collection systems for livestock husbandry and arable farming.
3. Study on adaptive potential of the fruit and berry tree varieties.
4. Assessment of carbon sequestration potential of pasture land.
5. Feasibility of forest strip establishment around arable farming land.

Non-Governmental Organisations (NGOs), research institutes and national agencies with sectoral extensive in-depth expertise will be the choice as the executing service provider for the assessments which should include up to date climate information, risk and vulnerability analyses, projected socio-economic impacts of climate change, cost-benefit analyses, financial analyses and other relevant details. For example, it is expected that through the assessment of the implications of the “livestock tax law” a strong information and knowledge base will be developed based on which recommendations and guidelines can be provided at the national level, as well as facilitate advisory and information exchange among a wide range of herders, herder communities and soum citizens' representatives.

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

Outcome 2 will build on the achievements of the Outcome 1 and aims to create an enabling environment for operationalising the climate options, appraised and affirmed under Outcome 1. The following sub activities are planned under the outcome 2:

- Sub-Activity 2.1.1.1: Support the integration of gender-responsive NDC and/or NAP priorities for the agriculture and land use sectors into sectoral plans or budgets.
- Sub-Activity 2.1.2.1: Develop and test MRV system for the agriculture and land use sectors in accordance with ETF requirements.
- Sub-Activity 2.1.3.1: Support NDC update process by developing recommendations for enhancing goals related to livestock and arable farming through multi-stakeholder consultations.



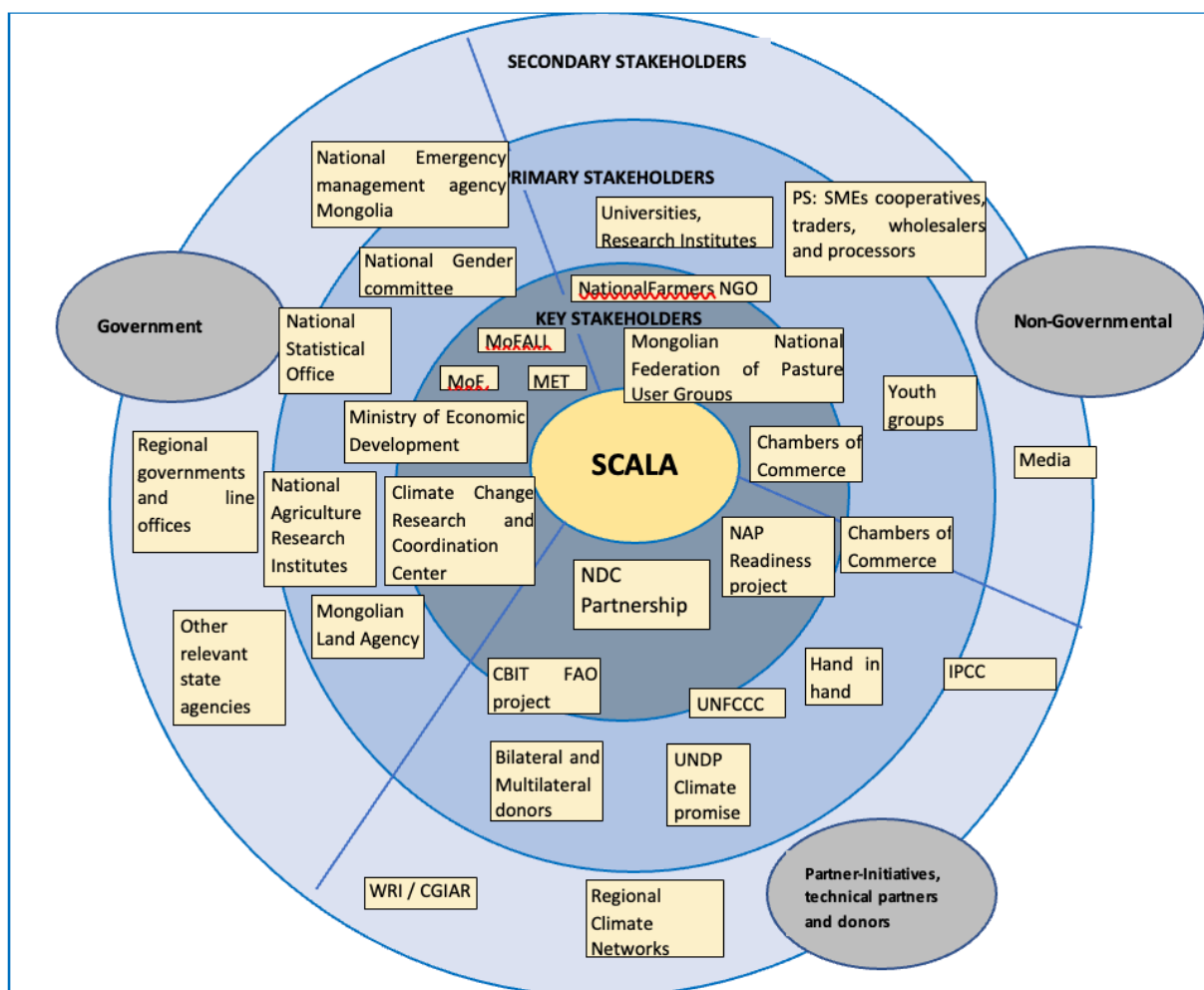
4.3.3 Outcome 3: Private sector engagement in climate action in land use and agriculture increased

The objective of the SCALA programme in Mongolia under Outcome 3 will be the development of business opportunities and project concept notes based on cost-benefit analyses and /or financial analyses and so on. within the framework of the system level assessments. To enable this, investment barriers analysis will be conducted to determine deterring barriers and risks that face private sector actors for the implementation of identified climate actions. In addition, at least one financial de-risking instrument will be developed to incentivize private investment into the chosen climate actions.

4.4 STAKEHOLDER MAPPING

SCALA Mongolia will work directly with key national and global stakeholders presented in the figure. These key stakeholders will be part of the mechanisms strengthened and will be engaged on a continuous basis across the three outcomes. Primary stakeholders and ministries are likely to be involved in the project activities. Secondary stakeholders might be involved in a single activity.

Figure 13. SCALA Mongolia – Stakeholder Map



Source: Authors



5. OPERATIONS

5.1 COUNTRY AND GLOBAL TEAM COORDINATION

SCALA Mongolia country team, composing of two focal points from the FAO and UNDP will be responsible for the day to day technical and administrative duties for the implementation of the joint workplan. The focal points (technical experts) from the two agencies are supported by three staffs (from UNDP and FAO) on operational management as well as communication activities. The country team, supported by backstoppers from both UNDP and FAO global teams, will regularly organize and/or participate in consultative technical meetings with targeted FAO/UNDP country office experts, global team experts and key officials from the ministries of MoFALI and MET. The communication between the country team, backstoppers and, regional and global teams will be maintained through regular calls and emails as well as updates in the SCALA MS Teams workspace.

5.2 PROJECT STEERING COMMITTEE OR ADVISORY GROUP

SCALA Mongolia will be implemented by the MoFALI and MET with support of the UNDP and FAO Mongolia. It is established by the Ministerial decree № A/365 of the MOFALI on December 15th, 2021.

The Project Steering Committee comprises of:

Steering committee chair:

1. State Secretary of the Ministry of Food, Agriculture and Light Industry

Members:

2. Food and Agriculture Organization Representative in Mongolia
3. Deputy Resident Representative of the UNDP Mongolia
4. Director General of Policy and Planning Department, Ministry of Food, Agriculture and Light Industry
5. Director General of Livestock Policy Implementation and Coordination Department, Ministry of Food, Agriculture and Light Industry
6. Director General of Monitoring, Evaluation and Internal Auditing Department, Ministry of Food, Agriculture and Light Industry
7. Director General of the Development Financing Department, MoF
8. Director General of the Climate Change Department, Ministry of Environment and Tourism
9. Director of the Baseline Study and Monitoring Department, ALAMGC
10. United Nations Framework Convention on Climate Change (UNFCCC) National Focal Point
11. Mongolian National Crop Farmers Association
12. Mongolian National Federation of Pasture User Groups
13. Project coordinator of National Communication and Biennial Update Report under the UNFCCC, of the Climate Change Research and Cooperation Centre (CCRCC)

Secretary:

14. National Project Coordinator, Climate projects United Nations Development Programme /no voting rights.

The Project Steering Committee (PSC) meetings will be organized annually by the country team with the support of the foreign relation division of the MoFALI to incorporate strategic guidance and focused coordination into the project implementation and ensure consistency with national policies and strategies as well as to approve annual workplan.

The first PSC Meeting, based on the decision of the Chair of the PSC/State secretary of the MoFALI was held on 27 December 2022, where the SCALA Mongolia general workplan was approved by the PSC chair.



5.3 MONITORING AND EVALUATION AND REPORTING

The M&E and reporting arrangements of SCALA Mongolia were established at two levels during the inception phase.

1. At programme level, the country team reports quarterly by providing updates on progresses per output, activities, and indicators as well as answering questions on quarterly expenditures, communication materials developed and organization of events.
2. At national level, the PSC will monitor and review regularly the programme implementation including the 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 the 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) for Global Environment Facility (GEF) financed projects available on the UNDP Evaluation Resource Center.

5.4 KNOWLEDGE MANAGEMENT AND COMMUNICATIONS

During the implementation SCALA Mongolia, a number of knowledge and communications products are expected to be published. These include,

- assessment reports on identifying evidence base for transformative climate actions;
- NDC and NAP-related goals in the land use and agriculture guidelines;
- policy advice and applied tools and innovative approaches to climate change adaptation and mitigation.

Gender mainstreaming and integrated monitoring and reporting, Knowledge products, produced at the country level will be shared with global and regional project teams, key ministries, relevant networks, private sector actors and civil society organizations via workshops and trainings, consultative meetings, and social media platforms.



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ANNEX 1 EXISTING AND PLANNED PROJECTS AND PROGRAMMES

Initiatives	Participating Agencies	Focus Area
CADRI	20 including FAO	The Capacity for Disaster Reduction Initiative (CADRI) is a global partnership composed of 20 organizations working towards the achievement of the SDGs by providing countries with capacity development services to help them reduce climate and disaster risk.
Climate Finance Network	UNDP	UNDP's Climate Finance Network (formerly known as 'Strengthening the Governance of Climate Change Finance (GCCF)') is a diverse group of governance, climate change and development specialists providing tools and services to improve the mobilization, management, and targeting of climate change finance throughout Asia Pacific. The CFN team has developed a range of climate financing and budgeting solutions and carries out analytical work to share knowledge and practices globally.
Commission on Genetic Resources for Food and Agriculture	FAO	The CGRFA is the only permanent intergovernmental body that specifically addresses biological diversity for food and agriculture. It aims to reach international consensus on policies for the sustainable use and conservation of genetic resources for food and agriculture and the fair and equitable sharing of benefits derived from their use.
Friends of EbA (FEBA)	IKI, IUCN as the Secretariat, UNDP, FAO among 75 others	Friends of EbA (FEBA) is an informal network of organizations with an interest in promoting collaboration and knowledge sharing on Ecosystem-based Adaptation (EbA) through joint events and initiatives, as well as the development of position papers and technical documents on EbA. It is part of the IKI.
Global Bioenergy Partnership	FAO, UNDP, UN Environment, governments and others	Since its establishment in 2006 GBEP has been actively working to advance bioenergy for sustainable development, climate change mitigation and adaptation, as well as food and energy security. It is a forum where voluntary cooperation works towards consensus amongst its members for raising awareness, sharing information and examples of good practices on bioenergy. Sustainable bioenergy value chains represent an important contribution to achieve climate targets, including through land restoration practices connected to bioenergy value chains.



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Global Commission on Adaptation	Global Center on Adaptation, World Resources Institutes, 17 convening countries, UN Agencies and other major development organisations	<p>The Global Commission on Adaptation was launched in The Hague on 16th October 2018 by 8th UN Secretary General Ban Ki-moon. The Commission launched with the mandate to encourage the development of measures to manage the effects of climate change through technology, planning and investment. Secretary General Ban Ki-moon leads the group with co-chair of the Bill and Melinda Gates Foundation, Bill Gates, and World Bank Chief Executive Officer, Kristalina Georgieva. The Commission was launched with the support of 17 convening countries including China, Canada and the United Kingdom of Great Britain and Northern Ireland and low-lying countries vulnerable to climate change including Bangladesh and the Marshall Islands. It also included 28 Commissioners representing all sectors of the globe and all sectors of development and industry. It has 8 action tracks, including 3 in which UNDP plays an important role: 'Locally-led Action', 'Finance' and 'Food Security and Rural Livelihoods'. SCALA will work closely with the GCA, especially on the 'Food Security and Rural Livelihoods' track led by CGIAR. It aims to increase funding and support to build the resilience of 300 million small-scale farmers around the world. To achieve this goal, the Commission and its partners will increase investment in agricultural research, expanding access to crucial farmer advisory services and information, as well as access to improved risk management and financial services that farmers need to adapt to climate change.</p>
Global Water Partnership	GWP	<p>The Global Water Partnership (GWP) is a global action network with over 3,000 Partner organisations in 179 countries. The network has 68 accredited Country Water Partnerships and 13 Regional Water Partnerships. GWP's action network provides knowledge and builds capacity to improve water management at all levels: global, regional, national and local. GWP supports many countries in integrating water-related issues into the NDC and NAP processes</p>
Green Commodities Programme	UNDP	<p>The UNDP Green Commodities Programme aims to improve the national, economic, social and environmental performance of agricultural commodity sectors. In 2010, UNDP launched the GCP in recognition of the importance of global agricultural commodities in achieving the SDGs, with a mission to:</p> <ul style="list-style-type: none"> • Improve the lives of farmers and their communities. • Protect high conservation value forest and important vulnerable ecosystems. It focuses on 12 countries and 8 value chains.
Hand in Hand Initiative	FAO	<p>Hand-in-Hand is an evidence-based, country-led and country-owned initiative of the Food and Agriculture Organization of the United Nations (FAO) to accelerate agricultural transformation and sustainable rural development to eradicate poverty (SDG 1) and end hunger and all forms of malnutrition (SDG2). Using the most sophisticated tools available, including advanced geospatial modelling and analytics, Hand-in-Hand identifies the biggest opportunities to raise the incomes and reduce the inequities and vulnerabilities of the rural poor, who constitute the vast majority of the world's poor. It uses these tools to understand a comprehensive view of full economic opportunities and to improve targeting and tailoring of policy interventions, innovation, finance and investment, and institutional reform accordingly. Hand-in-Hand adopts a market-oriented food systems approach to increasing the quantity, quality, diversity and accessibility of nutritious foods available in</p>



		local, regional and national food markets. It works to improve food system capacities to deliver nutrition and healthy diets for everyone and improving household livelihoods by reducing extreme poverty.
Intergovernmental Panel on Climate Change (IPCC)		The IPCC is the United Nations body for assessing the science related to climate change.
International Treaty on Plant Genetic Resources for Food and Agriculture	FAO	The objectives of the International Treaty on Plant Genetic Resources for Food and Agriculture are the conservation and sustainable use of all plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security. The FAO's ITPGRFA is the international agreement where Member Countries establish the priorities and plans to underpin the sustainable management of plant genetic resources for sustainable agriculture and food security. It is in harmony with the Convention on Biological Diversity (CBD). The Governing Body of the International Treaty recently requested, through Resolution 3/2019, FAO to prioritise Programmes that support the nexus between biodiversity and climate change. SCALA provides a unique opportunity to strengthen national plans and Programmes that enhance implementation of the Paris Agreement and the International Treaty.
National Adaptation Plan Global Support Programme (NAP-GSP)	UNDP, UN Environment, GEF	The GEF Programme assists least developed and developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing. It supports the process to formulate and implement National Adaptation Plans (NAPs) under the UN Framework Convention on Climate Change (UNFCCC). In doing so, the NAP-GSP works with development partners to implement the NDCs and promotes ambitious climate action in alignment with the SDGs. Implemented since 2014, it will end in June 2021.
NAP Readiness Projects	UNDP, FAO, GCF	The Green Climate Fund's Readiness and Preparatory Support Programme provides up to USD 3 million per country to advance adaptation planning. UNDP, FAO and other UN agencies such as UN Environment, have received requests from a number of developing countries to serve as delivery partner for this support. Wherever a NAP project is under formulation or under implementation in the participating countries, SCALA will ensure that Programme activities contribute to and benefit from other adaptation planning activities in land use and agriculture as well as in the broader NAP process.
NDC Partnership	UNFCCC, WRI	The NDC Partnership is helping countries access cutting-edge technical and financial knowledge resources to accelerate climate action. Drawing together the expertise and input from its members and other leading institutions, the NDC Partnership Knowledge Portal offers, in an easily searchable interface, quick access to over 700 knowledge resources from more 100 different knowledge providers. Presenting information in ways that are accessible to both subject matter experts and those less familiar with NDCs, the Knowledge Portal enables users to quickly and easily access the resources most relevant to them. All content on the site is tagged according to common needs, including sectors, themes, countries, languages, and stages of NDC implementation.



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NDC Support Programme	UNDP	The NDC Support Programme builds on UNDP's substantial climate portfolio, especially the important foundations that 38 countries laid through the UNDP Low Emission Capacity Building (LECB) Programme, as well as through the MDG Carbon and the Latin America Climate Change Programmes. The Programme supports countries on eliminating barriers to this ambitious transition, in particular by formulating a systemic, integrated approach through governance and policy frameworks, inclusive leadership, transparency systems, blended climate finance and implementation of NDC objectives. It currently serve 36 countries directly and share its expertise with many more through its work with partners or global and regional events.
NDC Cluster	IKI	The NDC Cluster is IKI's collaborative think tank for internal knowledge exchange and generation on NDC enhancement.
Paris Committee on Capacity Building	UNFCCC	Created in 2015, the Paris Committee on Capacity-building (PCCB) addresses current and emerging gaps and needs in implementing and further enhancing capacity-building in developing countries. The PCCB has been tasked with managing and overseeing the capacity-building workplan for the period 2016-2020 (1/CP.21 para 73) and plays a key role in ensuring coherence and coordination in capacity-building activities under the Convention. The PCCB launched a PCCB Network at COP 25 in Madrid. It's open to all public and private entities and initiatives at the local, national, regional, and international levels. SCALA has submitted its request to join the Network.
Thematic Working Group (TWG) on Agriculture, Food Security and Land use of the NDC Partnership	FAO	FAO facilitates the Thematic Working Group (TWG) on Agriculture, Food Security and Land use under the NDC Partnership together with two co-chairs. The TWG is a country-led peer to peer network for countries and international organisations to consult one another and to share experiences and challenges related to climate change impacts and the implementation of NDCs in the land use and agriculture sectors. http://www.fao.org/climate-change/our-work/what-we-do/ndcs/twg/en/
The Partnership on Transparency in the Paris Agreement (PATPA)	South Africa, South Korea and Germany	The Partnership on Transparency in the Paris Agreement was launched during the framework of the Petersberg Climate Dialogue in 2010 by South Africa, South Korea and Germany. Their aim is to promote ambitious climate action through policy dialogue and practitioner-based exchanges.
UN REDD	FAO, UNDP, UNEP	The overall development goal of the Programme is "to reduce forest emissions and enhance carbon stocks in forests while contributing to national sustainable development".



United Nations Global Compact	UN	The United Nations Global Compact is a voluntary United Nations pact to encourage businesses worldwide to adopt sustainable and socially responsible policies, and to report on their implementation. The UN Global Compact is a principle-based framework for businesses, stating ten principles in the areas of human rights, labor, the environment and anti-corruption. Under the Global Compact, companies are brought together with UN agencies, labor groups and civil society. It is the world's largest corporate sustainability initiative with 13000 corporate participants and other stakeholders over 170 countries with two objectives: "Mainstream the ten principles in business activities around the world" and "Catalyse actions in support of broader UN goals, such as the Millennium Development Goals (MDGs) and SDGs".
Vienna Programme of Action for LLDCs	UN-OHRL	The overarching goal of the Vienna Programme of Action is to address the special development needs and challenges of landlocked developing countries arising from landlockedness, remoteness and geographical constraints in a more coherent manner and thus to contribute to an enhanced rate of sustainable and inclusive growth, which can contribute to the eradication of poverty by moving towards the goal of ending extreme poverty.
World Business Council for Sustainable Development	WBCSD	The World Business Council for Sustainable Development (WBCSD) is a CEO-led organisation of over 200 international companies. ^[3] The Council is also connected to 60 national and regional business councils and partner organisations. They target the realization of the SDGs through six work programmes to achieve systems transformation, including Climate and Energy, and Food and Nature.
Topic-specific initiatives in partner countries		Linkages with ongoing initiatives that have overlapping objectives with SCALA countries' priorities will be sought, such as the scaling up agroecology initiative in Senegal https://www.agroecology-pool.org/climatechangereport/

Source: Authors- Adapted from SCALA Project Document



ANNEX 2: SCORING THE TRANSFORMATIVE POTENTIAL (0-10) OF THE PRIORITY CLIMATE ACTIONS

Nr	Action List the adaptation and/or mitigation action from Step 1	Score							AVG. SCORE
		Climate rationale	Systems-approach	Private-sector engagement	Gender equality & Social inclusion	Sustainable development	Whole-of-government	Technological Innovation	
1	Assessment on correlation of livestock number and land degradation including pasture and forested land	10.0	10.0	10.0	9.0	7.5	7.5	8.8	9.0
2	Take agroforestry measures such as establishment of forest strip arable lands to prevent negative effects of climate change	8.3	10.0	10.0	7.0	8.8	7.5	8.8	8.6
3	Assess the area of unpaved roads and its carbon sequestration potentials using remote sensing methodology	3.3	4.0	0.0	0.0	5.0	5.0	1.3	2.7
4	Introduce drip irrigation technology for vegetable production to reduce water usage and labor cost	8.3	6.7	10.0	6.0	7.5	7.5	5.0	7.3
5	Increase the number of bred animals through the usage of genetic resources and breeding methods and the implementation of pasture management	10.0	0.0	7.5	8.0	7.5	5.0	5.0	6.1
6	Establish public service unit for monitoring and implementation of livestock breeding policy and technological advice on improving quality and productivity of the livestock	6.7	0.0	2.5	5.0	6.3	5.0	5.0	4.3
7	Create meat stocks and promote meat export, meat products to limit livestock numbers and optimize the production of meat products	10.0	0.0	10.0	6.0	8.8	7.5	6.3	6.9
8	Develop and improve methodology to measure greenhouse gas emissions of the livestock sector and optimize manure management	10.0	0.0	2.5	2.0	7.5	5.0	3.8	4.4
9	Build/restore livestock watering points/wells to optimize the use of water and pasture resources	5.0	0.0	5.0	4.0	7.5	5.0	3.8	4.3
10	Conduct water exploration assessments to unleash untapped pasture resources	8.3	0.0	0.8	3.0	5.0	3.8	1.3	3.2
11	Modernize machinery and equipment for fodder production to increase the production and promote sustainable pasture use	3.3	0.0	5.8	1.0	6.3	5.0	1.3	3.2
12	Conduct disaster prevention trainings for local herders, community groups, environment protection cooperatives	5.0	10.0	3.3	4.0	7.5	5.0	1.3	5.2
13	Conduct impact assessment of climate change on food nutrition and food safety	1.7	0.0	3.3	1.0	7.5	6.3	3.8	3.4
14	Organize outreach activities to increase social and health insurance services among herders	3.3	0.0	0.8	2.0	5.0	6.3	3.8	3.0

Source: Authors



ANNEX 3: 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. ⁷ 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	Number of participatory technical reviews of NDCs and/or NAPs to identify priority land use and agriculture actions with transformative and systems-change potential	Technical reviews conducted on transformative climate actions	N/A	1 participatory technical review of NDCs and/or NAPs to identify priority land use and agriculture actions with transformative and systems-change potential
	Activity 1.1.2. Conduct participatory systems-level assessments to define evidence-based transformative and inclusive implementation options	Number of assessments conducted on transformative, gender-responsive climate actions in a landscape, food, or related systems identified through NDC and/or NAPs reviews and (ii) assessed through inclusive multi-stakeholder consultations	System level Assessments, Reports, conducted workshops, ToRs, attendance lists	There is a two kind of system assessments but no system level assessments to identify transformative potential of climate actions	6 assessments conducted on transformative, gender-responsive climate actions based on multi-stakeholder consultations

⁷ Global programme indicator for Output 1.1: Number of a 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.



Outcome 2: Climate risk-informed land use and agriculture sector priorities integrated into national and sectoral planning, budgeting and monitoring					
Output 2.1. ⁸ NDC and NAP priorities for land use and agriculture enhanced and integrated into sectoral planning and budgeting	Activity 2.1.1. <i>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</i>	<i>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 are based on consultations that increase the participation of women and women's representatives in decision-making</i>	<i>Sectoral plan and/or budgets for the agriculture and land use sectors (livestock and arable farming)</i>	<i>There are two sectoral plans that incorporate NDC land use and agriculture priorities, but not gender-responsive and integrated CC budgeting</i>	<i>Integration of gender-responsive NDC priorities for the agriculture and land use sectors into sectoral plans or budgets</i>
	Activity 2.1.2. <i>Improve/develop 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, including collection of gender disaggregated data</i>	<i>Number of MRV and/or M&E systems 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</i>	<i>National and/or sectoral MRV system, database, websites, reports</i>	<i>There is an inconsistent/ on demand MRV system at national level, but not specific for land use and agriculture, including sex-disaggregated data</i>	<i>Operationalised MRV system in land use, agriculture sector by means of database establishment for MRV in Mongolia</i>
	Activity 2.1.3: <i>Enhance NDCs and/or NAPs by integrating transformative, gender-</i>	<i>Number of NDCs and/or NAPs enhanced with updated land use and agriculture</i>	<i>Workshop or consultation meeting reports with relevant recommendations, documents</i>	<i>Mongolia's NDC included agriculture and land use priorities, but not integrating</i>	<i>NDC and/or NAPs enhanced by integrating transformative, gender-</i>

8 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 operationalized 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.



	<i>responsive and inclusive land use and agriculture priorities</i>	<i>priorities and gender-responsive targets</i>	<i>submitted to UNFCCC</i>	<i>transformative, gender-responsive targets</i>	<i>responsive and inclusive land use and agriculture priorities</i>
Outcome 3: Private sector engagement in climate action in land use and agriculture increased					
Output 3.1. ⁹ Enabling environment and incentives enhanced for private sector engagement in NDCs and NAPs implementation	Activity 3.1.1. <i>Identify policy and financial de-risking measures and business opportunities</i>	<i>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</i>	<i>Strategy documents, business opportunities for private sector engagement to implement NAP/NDC priorities</i>	<i>There is not any private sector de-risking strategy that includes actions targeted to climate change and land use/ agriculture.</i>	<i>Barrier analysis and de-risking strategy document</i>
	Activity 3.1.2. <i>Develop programme concept notes to leverage investment for transformative and inclusive action in partnership with the private sector</i>	<i>Number of concept notes for transformative and gender-responsive climate action with public private partnerships</i>	<i>Programme concept notes for improving private sector engagement</i>	<i>There are 12 concept notes</i>	<i>At least one concept note for transformative climate action with public private partnerships</i>

Source: Authors

⁹ 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 4: PLANNING WORKSHOP AGENDA AND LIST OF PARTICIPANTS SCALA PROGRAMME TECHNICAL MEETING

September 9, 2021, Meeting time: 15:00-17:30
Facilitator: N.Batsuuri Ph.D, SCALA Consultant

TIME	ACTIVITIES	PRESENTERS
14:55-15:00	Registration	Participants
Session 1 Technical Meeting of SCALA		
15:00-15:05 <i>5min</i>	Opening note UNDP and FAO Mongolia	D.Saruul <i>Project Manager SCALA, UNDP Mongolia</i> S.Dolgorsuren <i>Project Manager CBIT, FAO Mongolia</i>
15:05-15:15 <i>10min</i>	SCALA programme Introduction	D.Saruul <i>Project Manager SCALA, UNDP</i>
15:15-15:40 <i>25min</i>	Introduction of the baseline survey of SCALA programme in Mongolia	N.Batsuuri Ph.D, <i>Consultant</i>
15:40-16:05 <i>25min</i>	Introduction of draft Climate Action Review Matrix and status of reflection on the policy documents	S.Bayarkhuu Ph.D, <i>Consultant</i>
16:05-17:00 <i>55min</i>	Q&A/Discussion/Conclusion: Proposal of actions necessary to consider at the implementation stage of SCALA programme	Moderator: N.Batsuuri Ph.D, S.Bayarkhuu Ph.D
Session 2 Key finds of Feasibility Study under UNDP's Climate Promise project		
17:00-17:15 <i>15min</i>	Feasibility study on establishing SS cooperation mechanism on pastureland (and forest) carbon sequestration in central Asia and Mongolia	D.Dagvadorj Sc.D, <i>Consultant</i>
17:15-17:30 <i>15min</i>	Discussions	

Source: Authors



LIST OF PARTICIPANTS OF THE MEETING

	Stakeholders	Name and Position
1	Ministry of Food, Agriculture and Light Industry	Ts.Bolorchuluun, Director General, Department of Strategy and Planning
2		D.Batsuren, Head, Division of Livestock Genetic Resources
3		D.Batmunkh, Director General, Department of Livestock Policy Implementation and Coordination
4		B.Unenbat, Director of the department of arable farming policy coordination and implementation, MoFALI
5		B.Ganzorig, Head of the Division for International Cooperation
6		Delgermaa Officer of the Division for International Cooperation
7		B.Altansukh, Director General, Department of Monitoring and Auditing
8	Ministry of Environment and Tourism	A.Narangaravuu, Officer, Department of Climate Change and International Cooperation
9		S.Erdenetsetseg, Senior Officer, Department of Green Development and Planning
10		Batbaatar, Officer, Department of Green Development and Planning
11		A.Enkhat, Director General, Department of Climate Change and International Cooperation
12		G.Khorolmaa, Senior Officer, Department of Green Development and Planning
13	D.Temuulin, Senior Officer, Environmental Assessment and Auditing Division	
14	Ministry of Finance	Tuvshinjargal, Officer, Department of Economic Policy
15	Climate Change Research and Cooperation Agency	Z.Batjargal, Climate change National Focal Point
16		Sh.Gerelmaa, GHG Inventory Officer
17	Land Management, Geodesy and Cartography Agency	Dul. B
18	Forest and Tree Training and Research Institute under the MUST	Ts.Banzragch, Director
19	Hydro-Meteorological and Environmental Research Center	D.Batdorj
20	Information and Research Institute of Meteorology, Hydrology and Environment (IRIMHE)	G.Sarantuya, Director
21	Projects	Erdenebat, Project Coordinator, BIOFIN
22		Myagmarjav, Manager, cashmere-MSCP
24		Enkh-Amgalan, BCT NGO
25		Tuya, Officer, GCF- adaptation project, UNDP
26		Yu.Bayarjargal, Project Manager, GCF adaptation project, UNDP
27		Kh.Undarmaa, Project Manager, NC4/BUR2



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28		O. Damdinsuren, Project manager, NAP
29	Organizers and Consultant's	C.Dolgorsuren, Project Manager, CBIT project, FAO
30		D.Saruul, National Projects Coordinator for Climate change, UNDP
31		Kh.Khishigjargal, Programme Analyst, UNDP Mongolia
32		M.Sukhragchaa, NDCP
33		D.Dagvadorj, Consultant UNDP
34		N.Batsuuri, Consultant UNDP
35		S.Bayarkhuu, Consultant UNDP
36	Global Backstoppers	Subhi Shama, UNDP
37		Nelson, Sibyl (OCBD), FAO
38		Neha Rai
39		Damen, Beau (FAORAP)

Source: Authors



ANNEX 5: INCEPTION WORKSHOP AGENDA AND LIST OF PARTICIPANTS

Workshop facilitator: Mr. Ganzorig V.

TIME	DESCRIPTION	PRESENTER/FACILITATOR
Session 1: Setting the scene		
09:00-09:30	PCR test / Registration	All participants
09:30-09:50 20min	Welcome and opening remarks	Mr. Jambaltseren T. <ul style="list-style-type: none"> State Secretary of the MoFALI Nashida Shattar DRR UNDP Vinod Ahuja FOAR
09:50-10:00 10min	Inception workshop objectives, expected outcomes and Agenda	Sergelen M. SCALA programme officer, FAO Mongolia
10:00-10:15 15min	Overview of the SCALA programme	Saruul D. NPC, Climate Projects, UNDP
10:15-10:25	Group photo	All participants
Session 2: Preliminary results from the SCALA baseline survey and Understanding the potential for transformative climate action		
10:25-10:45 20min	Findings of baseline survey	N.Batsuuri Ph.D, National Consultant of SCALA
10:45-11:05 20min	Findings of climate action review matrix and Theory of Change	S.Bayarkhuu Ph.D, National Consultant of SCALA
11:05-11:45 40min	Breakout group discussion on two climate actions: <ol style="list-style-type: none"> Correlation of livestock number and pasture land degradation Establishing forest strips around arable crop lands 	S.Bayarkhuu Ph.D, National Consultant of SCALA
11:45-12:05 20min	Tea Break	All participants
Session 3: Discussion and Q&A		
12:05-12:50 45min	Q&A, Discussion	N.Batsuuri Ph.D, S.Bayarkhuu Ph.D, National Consultants of SCALA
12:50-13:05 15min	Overview of SCALA workplan	Sergelen M. SCALA programme officer, FAO Mongolia
13:05-13:20 15min	Feedback and Summary of key points	Saruul D. NPC, Climate Projects, UNDP
13:20-13:30 10min	Closing	Mr. Bolorchuluun Ts. Policy planning department of MoFALI

Source: Authors



List of Participants

PARTICIPANTS FROM MINISTRIES AND NATIONAL AGENCIES	
Mr. Unenbat E.	Director of the department of arable farming policy coordination and implementation, MoFALI
Mr. Batsaikhan J.	Head of the ICT Division, MoFALI
Mr. Ganzorig B.	Head of the Division of International Cooperation, MoFALI
Mr. Altansukh B.	Director of the department of Monitoring, Evaluation and Internal Auditing, MoFALI
Mr. Eson-Erdene D.	Head of the Division of Soil, Plant Protection and Seed and Variety, MoFALI
Mr. Altangerel B.	Officer of the department of crop production coordination and implementation, in charge of Climate Change Adaptation, MoFALI
Ms. Delgermaa S.	Officer of the Division of International Cooperation, MoFALI
Ms. Daariima Ts.	Officer of the Division of Soil, Plant Protection and Seed and Variety, in charge of soil fertility and gender policy at the MoFALI
Mr. Munkhnasan TS.	Officer of the department of Livestock Policy Implementation and Coordination, in charge of Climate Change, MoFALI
Mr. Көнжегүл X.	Officer of the department of crop production coordination and implementation, in charge of irrigation technology and infrastructure, MoFALI
Ms. Tseepil A.	Officer of the department of environmental and natural resources, MET
Mr. Enkhtaivan N.	Officer of the department of forest policy implementation and coordination, MET
Ms. Undarmaa X.	Project coordinator of National Communication and Biennial Update Report under the UNFCCC
Ms. Davaasambuu D.	GHG inventory specialist of the Climate Change Research and Cooperation Centre (CCRCC), Mongolia
Ms Sarantuya G.	Director of the Institute of Research and Information for Meteorology, Hydrology and Environment
Б.Эрдэнэцэцэг	Head of the Division of Agricultural weather forecasts, Institute of Research and Information for Meteorology, Hydrology and Environment
Mr. Dul B.	Director of the Department of Baseline Study and Monitoring, Agency of Land Administration and Management, Geodesy and Cartography, Mongolia
Ms. Enkhjargal N.	Officer of the Department of Baseline Study and Monitoring, Agency of Land Administration and Management, Geodesy and Cartography, Mongolia, in charge of agricultural land restoration and monitoring
Mr. Batkhoo E	Director of the Development Financing Department, MoF
Mr. Dulguun B.	Officer of the Development Financing Department, MoF
PARTICIPANTS FROM INTERNATIONAL ORGANISATIONS	
Mr. Vinod Ahuja	Representative of the FOA Mongolia
Ms. Nashida Shattar	Deputy Resident Representative, UNDP Mongolia
Ms. Byambaragchaa M.	Project Manager of the European Union Delegation to Mongolia
Ms. Byambatsetseg	BMZ international cooperation
Ms. Khishigjargal Kh.	Programm Analyst, UNDP Mongolia
Mr. Dan Altrell	Senior Forestry Officer of the STREAM project, GIZ Mongolia,
PARTICIPANTS FROM NATIONAL ORGANISATIONS	
Mr. Dagvadorj D.	Director of Climate Change and Development Academy CCDA NGO
Mr. Gankhuyag N	Executive Director of the Mongolian National Federation of Pasture User Groups (NGO)
Mr. Baatartsogt O.	School of animal husbandry and biotechnology, at the MULS



Mr. Banzragch Ts.	Director of the Institute of Forest Research and Training, at the MUST
Ms. Udval G. (phd)	Researcher at the Research Institute Animal Husbandry, Mongolia.
Mr. Sangajav D.	Researcher at the Research Institute Animal Husbandry, Mongolia
Ms. Altantsetseg Л.	Researcher at the Research Institute Animal Husbandry, Mongolia
Ms. Urankhaich Ch.	Researcher at the Research Institute Animal Husbandry, Mongolia
Ms. Gantuya J	Researcher at the Research Institute Animal Husbandry, Mongolia
Ms. Ariunaa S.	Researcher of the Laboratory for Microbiology of the Plant protection research institute
Ms. Enkhjargal B.	Researcher of the Laboratory for forest protection of the Plant protection research institute
Mr Ыханбай Х.	Director of “Jasil” environmental NGO
ORGANISERS	
Ms. Saruul D	National Project Coordinator of Climate projects United Nations Development Programme
Ms. Dolgorsuren S.	National Project Coordinator of CBIT project, FAO Mongolia
Mr. Dashnyam B.	Administrative and Finance Officer of CBIT and SCALA programme, FAO Mongolia
Mr. Anar-Erdene E.	Climate Change Adaptation Expert of CBIT and SCALA programme, FAO Mongolia
Mr. Sergelen M.	Climate Change Specialist of CBIT project and SCALA focal point, FAO Mongolia
Ms. Khatatntuul B.	Administrative and Finance Officer, UNDP Mongolia
Mr. Batsuuri N. (phd)	National Consultant, UNDP Mongolia
Ms. Bayarkhuu S. (phd)	National Consultant, UNDP Mongolia
Mr. Ganzorig B.	Workshop facilitator

Source: Authors



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ANNEX 6: CLIMATE ACTION REVIEW MATRIX

Step 1 - Identifying the priority climate action

No.	Action	System description	System classification	Source	Scale	Sector	Goal	Policy alignment	Timeframe
1	Develop good feed value for cattle	Integrate management system for adaptation or mitigation action (e.g. Climate proof animal health water chain, NDC in rice systems, Pasture degraded pasture management)	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	Integrating management system was selected in column C above the type	NDC	Sub-national, District level	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
2	Assessment on correlation of livestock number and land degradation including pasture and forested land	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
3	Take agroforestry measures such as establishment of forest strip, shade lands to prevent negative effects of climate change	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
4	Assess the area of unpaired roads and its carbon sequestration potentials using remote sensing methodology	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
5	Introduce drip irrigation technology for vegetable production to reduce water usage and labor cost	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
6	Increase the number of breed animals through the usage of genetic resources and breeding methods and the implementation of pasture management	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
7	Establish public service unit for monitoring and implementation of livestock breeding policy and technological advice on improving quality and productivity of the livestock	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
8	Create meat stocks and promote meat report, meat products to limit livestock numbers and optimize the production of meat products	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
9	Develop and improve methodology to measure greenhouse gas emissions of the livestock sector and optimize manure management	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
10	Build/restore livestock watering points/wells to optimize the use of water and pasture resources	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
11	Conduct water exploration assessments to untouch untapped pasture resources	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
12	Modernize machinery and equipment for fodder production to increase the production and promote sustainable pasture use	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
13	Conduct disaster prevention trainings for local herders, community groups, environment protection cooperatives	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
14	Conduct impact assessment of climate change on food nutrition and food safety	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock / Able to learn	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term
15	Organize outreach activities to increase social and health insurance services among herders	Integrate management system	Whole system approach to a livestock system composed of a value chain or a set of related activities that are required for bringing an agricultural product from inception to consumption	NDC	National	Livestock	Reduce the risk of crop loss due to climate change (e.g. drought, flood, pests and diseases) in the value chain	2018 Climate Resilient Agriculture Strategy	Medium term

Source: Authors



MINISTRY OF FOOD,
AGRICULTURE AND LIGHT INDUSTRY



MINISTRY OF ENVIRONMENT
AND TOURISM

Supported by:



Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection



based on a decision of
the German Bundestag

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Information

[UNDP website](#)

[FAO website](#)

