

Key Points

- Mongolia's total emissions are low, but its emissions per capita are relatively high and rising.
- Mongolia's greenhouse gas emissions are produced primarily by the energy and agriculture sectors.
- Nationally appropriate mitigation actions (NAMAs) can help provide access to international financing for sustainable low-carbon development.
- Mongolia's NAMA for the management of its grassland and livestock sectors should be based on its National Livestock Program.
- Implementation of Mongolia's NAMAs should be phased, with three categories of activities—quick wins, fast-tracked actions, and key medium-term actions.
- Mongolia needs to develop a credible measurement, reporting, and verification system; strengthen its legal regulations, policies, and institutional coordination; and consult with stakeholders to finalize this draft NAMA.
- A NAMA for the grassland and livestock sector will help Mongolia combat desertification and achieve its green development goals.

Nationally Appropriate Mitigation Actions for Grassland and Livestock Management in Mongolia¹

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Introduction

Historically, Mongolia has made relatively minor contributions to global climate change, although its emissions per capita are relatively high and continuing to rise. In 2006, Mongolia's total net (sources minus sinks) greenhouse gas (GHG) emissions were approximately 15.6 million tons carbon dioxide equivalent.² Emissions come primarily from the energy (65.4%) and agriculture (34.3%) sectors (footnote 2). Most agricultural emissions are from livestock. In addition, peatland conversion and degradation are also likely large emission sources. Climate change is acknowledged as a significant threat to Mongolia's fragile environment, economic growth, and sustainable development. Given the negative impact of climate change on Mongolia, it is crucial to select mitigation actions that reduce vulnerability to climate change, support the achievement of national development goals, and are feasible given local constraints.

Nationally appropriate mitigation actions (NAMAs) can provide such a framework for sustainable development. NAMAs are nationally determined policies and actions that reduce GHG emissions compared to a business-as-usual scenario. These actions

¹ This policy brief was prepared as part of the Asian Development Bank's (ADB) technical assistance project for Strengthening Carbon Financing for Regional Grassland Management in Northeast Asia (TA 7534-REG). Authorship is alphabetical. The authors would like to thank ADB and colleagues from the Government of Mongolia for their useful comments and suggestions. The views expressed in this article are those of the authors and do not necessarily reflect the views and policies of ADB or its Board of Governors or the governments they represent.

² Ministry of Nature, Environment and Tourism. 2010. *Mongolia Second National Communication*. Ulaanbaatar.

are selected and undertaken voluntarily by developing countries with support from developed countries. The mitigation actions should be measurable, reportable, and verifiable. Technology, financing, and capacity building by developed countries can support and enable the implementation of NAMAs.

In 2010, Mongolia submitted the country’s intended NAMAs to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat. This included a NAMA for agriculture, including animal husbandry, that aims to limit the increase of the total number of livestock by increasing the productivity of each type of animal, especially cattle. This NAMA is in line with Mongolia’s National Development Strategy (2007–2021), the State Policy on Food Security (2009–2016), the State Policy on Herders (2010), and the National Action Programme on Climate Change (2011). The Asian Development Bank (ADB) assisted the Government of Mongolia to elaborate a NAMA concept for sustainable management of the livestock and grassland sectors based on the National Livestock Program (NLP).

A Pathway to the Implementation of Nationally Appropriate Mitigation Actions

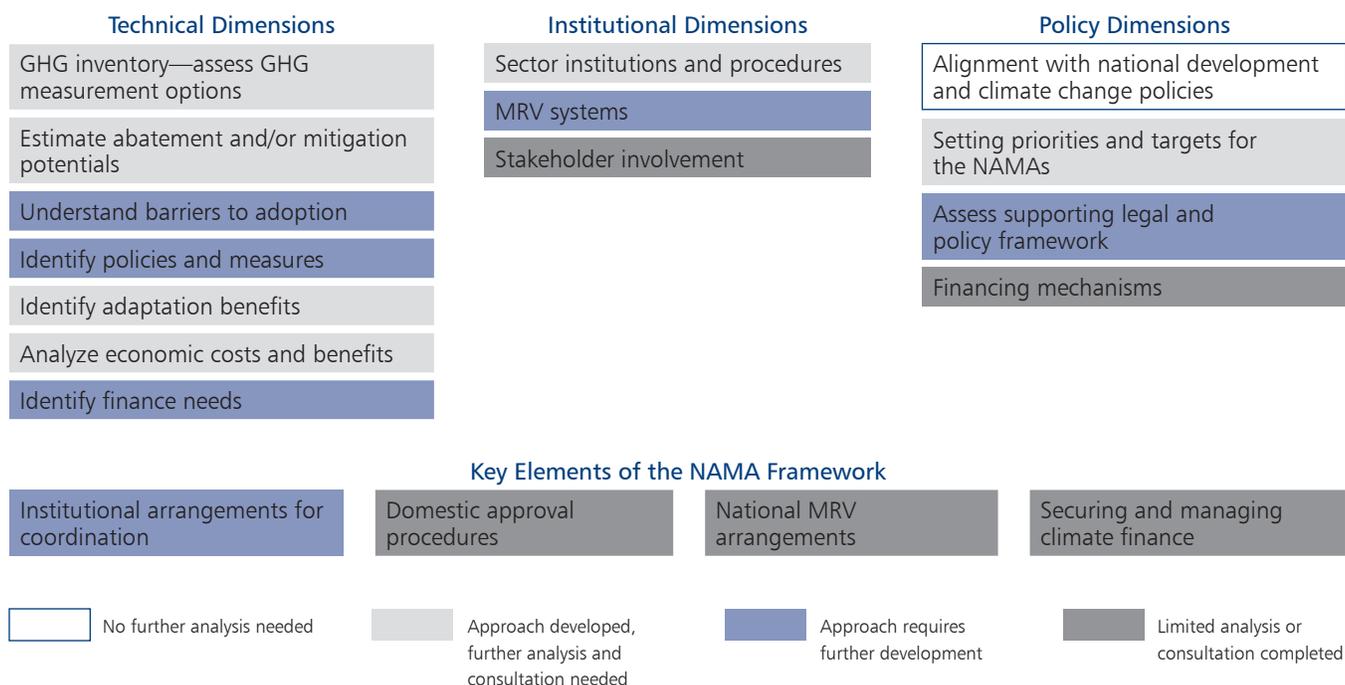
A readiness assessment found that some key elements were more advanced in the NLP than others (Figure 1). Based on this finding, a phased approach was identified as the most suitable strategy for NAMA implementation, with recommended activities divided into three categories—quick wins, fast-tracked actions, and key medium-term actions.

Quick Wins

Quick wins are beneficial actions that address key NAMA building blocks and can be done, even with no international support, in a relatively short time frame with limited resources.

1. **Piloting of greenhouse gas measurement, reporting, and verification methods.** Data collection protocols for estimating the productivity and GHG benefits of a selection of NLP interventions should be developed

Figure 1 Status of Key Elements for the Development of Nationally Appropriate Mitigation Actions in Mongolia’s Livestock and Grassland Sectors



GHG = greenhouse gas; MRV = measurement, reporting, and verification; NAMA = nationally appropriate mitigation action.

Source: Project team.

and tested. This could be linked to capacity building for national experts.

2. **Results-based monitoring and evaluation system for the National Livestock Program.** The current monitoring and evaluation system is not able to provide information on the outputs and outcomes of the activities supported through the NLP. A results-based system would assist the Ministry of Industry and Agriculture to collect data that would better characterize outputs and outcomes, and could form the basis of a credible measurement, reporting, and verification (MRV) system.
3. **Prioritizing barriers to adoption and identifying best practices for overcoming barriers.** Known barriers should be prioritized, and best practices for overcoming barriers should be identified. Knowledge gaps could be filled by targeted field research.
4. **Stakeholder consultations on nationally appropriate mitigation actions in the livestock and/or grassland sector.** A broad range of national and local stakeholders should be consulted regarding the proposed NAMAs to obtain inputs, help prioritize actions, and gain support.
5. **Defining roles, responsibilities, and coordination mechanisms in the development of nationally appropriate mitigation actions.** The existing national technical working group, chaired by the Climate Change Coordination Office with representation from the Ministry of Industry and Agriculture, provides a basis for further identifying stakeholders who should take part. The roles of different agencies in coordinating NAMA development should be clarified, as should the modalities for coordination.
6. **Submission of nationally appropriate mitigation actions to the UNFCCC.** Following consultation and further revision by national stakeholders, and on the basis of technical reports, a NAMA seeking financial support should be submitted to the UNFCCC NAMA Registry.

Fast-Tracked Actions

Fast-tracked actions enable a number of key elements to be put in place, but implementation requires that dedicated domestic or international resources be made available.

1. **Complete assessment of the National Livestock Program activity lines.** A partial assessment was conducted with ADB support. However, adaptation benefits, mitigation potentials, cost-benefit, GHG measurement options, and barriers to adoption for all NLP activities need to be completed to enable comparison. This would provide the technical basis for prioritizing activities to be supported in a NAMA.
2. **Consultation on identification and prioritization of policies and measures.** National- and local-level consultations should help identify and prioritize policies and measures to be supported through a NAMA to ensure that technical work is aligned with stakeholder priorities.
3. **Pilot implementation of selected activities of the National Livestock Program and associated measurement, reporting, and verification procedures.** A number of NLP activities are already being implemented. Implementation should be monitored using improved results-based monitoring procedures that provide the data required for GHG benefit assessment. This would present early proof-of-concept for mitigation and improve the design of national MRV systems.
4. **Pilot implementation of grassland carbon sequestration projects for carbon markets.** Implementation of a pilot project³ should be prioritized to gain experience on the feasibility and benefits of voluntary carbon market projects, the integration of carbon market mechanisms within a broader NAMA framework, and the use of performance-based payments in NLP implementation.

³ Outline design has been completed through the Linking Herders to Carbon Markets Project supported by the Swiss Development Cooperation.

Key Medium-Term Actions

Key medium-term actions should proceed after gaining more experience with NAMA implementation.

1. **Assessment of the supporting legal and policy framework.** Amendments to laws relating to the livestock and/or grassland sector are ongoing. Further assessment of the legal environment should be undertaken and informed by experiences of NAMA implementation.
2. **Clarification of national-level coordination, approval procedures, and arrangements for measurement, reporting, and verification procedures.** NAMAs are being developed in at least two sectors in Mongolia. Experience gained should provide information on the establishment of formal coordination mechanisms and approval procedures at the national level. International requirements on MRV will eventually be agreed through the UNFCCC.
3. **Establishment of a climate finance mechanism.** Securing international climate finance support is a priority. The establishment of a national implementing entity and access to the Green Climate Fund are needed. A transaction costs analysis should compare the use of a national implementing entity versus multilateral implementing entities. In the short term, direct negotiations with established finance sources can mobilize funds through existing national financial management systems.

Co-Benefits of the Livestock and/or Grassland Nationally Appropriate Mitigation Actions

The draft NAMA for agriculture, including animal husbandry, proposes that traditional extensive livestock management and mobile pastoral custodianship of grasslands be addressed as important practices for sustainable pasture management. In Mongolia, improvement of livestock management is highly dependent on the adoption of sustainable grassland management practices that contribute to the rehabilitation of grasslands and increase in soil carbon stocks. Implementation of a livestock and/or grassland NAMA is expected to increase Mongolia's ability to access international climate finance to support improved grassland and livestock management practices.

NAMA activities in the livestock and/or grassland sector will have significant co-benefits, apart from the reduction in GHG emissions. These co-benefits include combating desertification, increasing rural incomes, adapting to climate change, and supporting Mongolia's achievement of its green development goals.

Mongolia has made significant progress in identifying the technical, institutional, and policy dimensions for a NAMA. Additional work, however, is required, particularly with respect to stakeholder consultations and the NAMA framework. We recommend that the Government of Mongolia move forward in establishing an effective enabling legal and policy framework, build its MRV capacities, and develop investment pipelines.

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