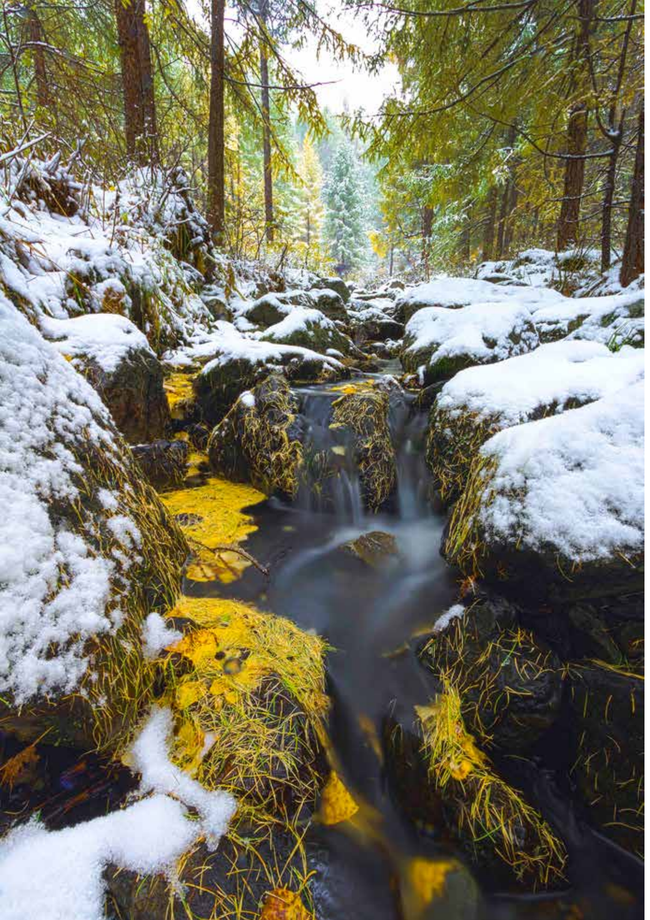

REDD+ actions can also contribute to building other types of capital, resulting in a diverse asset base. For example, REDD+ may build human capital by improving understanding about, and providing tools for, sustainable management of forests, or by providing marketing and product development assistance for non-timber forest products.

REDD+ may also support equitable access to assets and participation in rule-making about access and use, as REDD+ readiness activities can clarify rights to land. Complex procedures to gain rights can restrict access and use, and deter forest users from engaging in forest management.

CHALLENGES AND TRADE-OFFS

Decision makers and practitioners should take account of a number of potential challenges and trade-offs (compromises that may have to be made) when considering the relationship between REDD+ and adaptation.

Climate change means that the current context for mitigation and adaptation measures is likely to change in the future. For example, increased risk from forest fires may increase resulting in more fires. As another example, sustainable development strategies need to consider forest conservation actions, to ensure that forests are sustainably managed and conserved for water regulation. Establishing processes to incorporate relevant information as it becomes available (for example on emerging local changes due to climate change), as part of adaptive management, can help to overcome challenges.

Overall, REDD+ and adaptation actions can be complementary, although it also needs to be noted that REDD+ actions will not be able to achieve all adaptation goals, and adaptation actions will not be able to achieve all REDD+ goals.

A common challenge for both REDD+ and adaptation is the need to work across sectors. For REDD+, this is an imperative in order to address the drivers of deforestation and forest degradation, to mobilize funding, and to be integrated into economic strategies. For adaptation, the large range of sectors that may be impacted by climate change and that may impact adaptation options means that coordination across sectors is essential. Establishing multi-sectoral coordination units/teams will be important for successful REDD+ and adaptation planning, and will provide platforms to discuss links between mitigation and adaptation actions.

Integrating both adaptation and mitigation into wider forest policy and the strategies and plans of related sectors at the local to national scales can help maximize synergies and minimize trade-offs.

MONGOLIA: INTEGRATING ADAPTATION INTO THE NATIONAL REDD+ STRATEGY

Adaptation and REDD+ are often addressed through different processes, discussed in parallel policy debates that are often not linked, led by different ministries or institutions, and involve different constituencies and funding. More efforts should be made by national forums and initiatives to bring adaptation and REDD+ practitioners together to share information and experience. The National REDD+ strategy will embrace the combination of mitigation and adaption strategies. The number of examples of joint REDD+ (and mitigation generally) and adaptation programmes and projects is still relatively limited. Documenting more national-level case studies can provide further evidence on the benefits of implementing joint actions and highlights Mongolia as at the forefront of innovative REDD+ and climate change strategies Such evidence may influence donors to provide support for, and amend, funding processes to be more conducive to building greater complementarities between REDD+ and adaptation.

Climate Change Threat	Action
Desertification and Soil Erosion in Saxual Forest	Sustainable Firewood Collection and Oasis Protection
Increased temperatures leading to increased fire risk	Forest Fire Control and Sustainable Forest Management
Change in temperatures increasing risk of pests	Sustainable Forest Management
Increased vulnerability of water sources	Protection and Conservation of Existing Forest Stocks
Climatic influence on germination	Manage Genetic Diversity of Seed Stocks

The UN-REDD Programme is the United Nations Collaborative Initiative on Reducing Emissions from Deforestation and forest Degradation (REDD+) in developing countries. The Programme was launched in 2008 and builds on the convening role and technical expertise of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). The UN-REDD Programme supports nationally led REDD+ processes and promotes the in- formed and meaningful involvement of all stakeholders, including indigenous peoples and other forest-dependent communities, in national and international REDD+ implementation.

Since Mongolia became a partner country of the Programme in June 2011, the country has taken steps to start implementing REDD+ readiness activities. This includes the preparation of its National REDD+ Readiness Roadmap, which was officially adopted by the Ministry of Environment and Green Development and Tourism (MEGDT) in June 2014. The national programme was signed on September 18, 2015, and launched officially on January 26, 2016.

MAIN GOAL

The overall goal of the UN-REDD Mongolia National Programme is to support the Government of Mongolia in designing and implementing its National REDD+ Strategy and in meeting the requirements under the UNFCCC Warsaw Framework to receive results-based payments.

Outcome 1: National REDD+ Management arrangements established and improved stakeholder awareness and effective stakeholder engagement

Outcome 2: National REDD+ Strategy prepared

Outcome 3: Forest Reference Levels developed

Outcome 4: National Forest Monitoring System and Safeguards Information System developed

More about REDD+ can be found at:
UN-REDD MONGOLIA NATIONAL PROGRAMME
Tel: +976-77117750
Web site: www.reddplus.mn

Email: info@unredd.mn
Government Building II, United Nations Street - 5/2, Chingeltei district, Ulaanbaatar 15160, Mongolia

МОНГОЛ УЛСЫН ЗАСГИЙН ГАЗАР

БАЙГАЛЬ ОРЧИН, АЯЛАЛ ЖУУЛЧЛАЛЫН ЯАМ

REDD+ MONGOLIA

FACTSHEET 3:
ADDRESSING CLIMATE CHANGE ADAPTATION THROUGH REDD+ IN MONGOLIA

UN-REDD PROGRAMME

Food and Agriculture Organization of the United Nations · UNDP · UNEP

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KEY POINTS:

- A number of decisions under the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD) recognise the potential for synergies between climate change mitigation and adaptation actions.
- Ecosystem-based adaptation to climate change (EBA) can help to achieve REDD+ objectives. For example, sustainable forest management can lead to increased resilience to pests and fire which also have increased incidence or risk as a result of climate change in Mongolia.
- Adaptation actions can decrease the risk of reversals of emission reductions by: (i) modifying future drivers of land-use change; and (ii) supporting forests to adapt to climate change through actions that maintain characteristics of resilient ecosystems.
- The implementation of REDD+ activities can maintain and enhance ecosystem services important for adaptation and the nations sustainable development.
- Adaptation and REDD+ actions can contribute towards Mongolia's sustainable development vision particularly related to increased incomes, sustainable development and protection of water resources.
- There are both shared challenges and potential trade-offs between REDD+ and adaptation; the development and application of social and environmental safeguards can help to address some of these.
- Integrating both adaptation and mitigation into wider forest policy and the strategies and plans of related sectors, at local to national scales, can help maximize synergies and minimize trade-offs.
- Experience of joint REDD+ and adaptation actions are still limited. Mongolia can lead through development of a pioneering example of how REDD+, adaptation and sustainable development goals can be integrated.
- Mongolia should look for opportunities to link adaptation and mitigation actions through innovative funding strategies and funding mechanisms, including ecosystem service payments.

INTRODUCTION

The primary purpose of REDD+ is to mitigate climate change by reducing emissions from deforestation and forest degradation, and through the conservation of forest carbon stocks, sustainable management of forests and enhancement of forest carbon stocks. Mitigation is crucial for limiting the extent of climate change and thus the severity of its impacts on society, economy and ecosystems. However, even with our best mitigation efforts, there will still be changes in the climate system. Likely changes for Mongolia may include more frequent extreme cold periods, or dzuds, changes in the extent of permafrost, melting glaciers, increased risk of forest fire, changes to pest life cycles which may increase the incidence of pest outbreaks, change in rainfall patterns, which may affect tree seed germination and forest growth (in some locations of Mongolia it may increase forest growth) and increased drought leading to fire, desertification and land degradation.

Adaptation strategies and actions that enable us to reduce the adverse consequences of climate change, as well as to harness beneficial opportunities, are therefore critical. Some adaptation activities that ensure forests continue to provide ecosystem services in the face of climate change can also contribute to REDD+.

This factsheet outlines the relationship between REDD+ and adaptation, including possible mutual benefits and trade-offs, particularly in a Mongolian context. It examines the potential for adaptation, particularly ecosystem-based adaptation (see Box 1), to contribute to REDD+ and Sustainable Development goals in Mongolia. The factsheet explores how adaptation relates to the resilience of carbon stocks and reducing future drivers of deforestation and forest degradation; and how REDD+ can influence the adaptive capacity of society. Potential challenges to implementing REDD+ and adaptation in mutually advantageous ways are highlighted, as are potential trade-offs that will need to be considered. The factsheet concludes by offering some options to both REDD+ and adaptation decision-makers for realizing the opportunities presented.

Box 1: What is Ecosystem-based Adaptation?

Ecosystem-based adaptation to climate change (EBA) is defined as 'the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change'ii. Examples of EBA relevant to REDD+ include:

1. conservation, sustainable management and/or restoration of forests to stabilize steep slopes, intercept rainfall; maintain permafrost resources and maintain watersheds and freshwater sources;
2. conservation, sustainable management and/or restoration of saxual forests to reduce the impact of desertification and land degradation from climate change and poor management of forest resources;
3. establishment of diverse livelihoods systems and improved grazing to provide flexible livelihood and income options to adapt to climatic variability or extreme climatic events.

There are two major strategies to tackle climate change:

Mitigation: reduce GHG emissions to address the cause of climate change

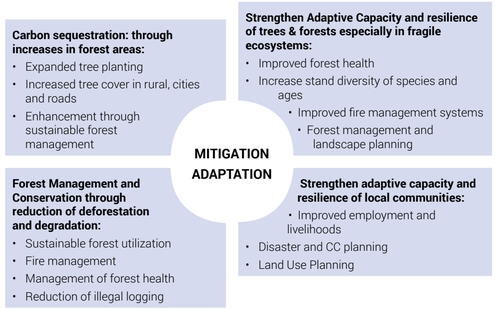
- Reducing the use of fossil fuels (coal, oil, gas) by moving into renewable, green energies to satisfy the energy needs of the global economy
- Reducing energy consumption by increasing energy efficiency in buildings and thermodynamic insulation of buildings)
- Preserving the earth's ability to store carbon by protecting forests and steppes as natural carbon sinks (in other words measures to prevent from deforestation and forest degradation)

Adaptation: adjustments in how we live to adapt to changing climate and reduce vulnerability, in other words addressing the effects of climate change.

- Integrate disaster risk reduction and climate risk reduction into national and local development plans
- Protect and restore water catchment areas, river basins and water sources
- Planning to enable forests to be resilient through maximizing altitudinal gradients and dispersal corridors
- Promote alternative livelihoods and increase resilience of forests resource dependent communities

HOW FOREST MANAGEMENT AND REDD+ CAN HELP TACKLE CLIMATE CHANGE

Land use, grazing, insects and pathogens, forest fires and illegal, or unsustainable extraction, have long been seen as a problem for forest managers. Adding climate uncertainty and impact to this situation presents additional challenges to maintain ecosystems and productive and protective forests. Alterations in temperature and precipitation under climate change can impact forests in several ways. These include shifting patterns of species as a result of soil moisture conditions, increasing frequency and magnitude of disturbance events, intensifying the impact of forest fires and pest damage, and placing undue pressure on local communities around forest areas.



POLICY BACKGROUND

A number of decisions made under the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD) are relevant to the relationship between REDD+ and adaptation actions. Under the UNFCCC, decision 1/CP.16 makes it clear that adaptation must be addressed with the same priority as mitigation by Parties. The set of safeguards that the Parties to the UNFCCC agreed should be promoted and supported when undertaking REDD+ activities (the so called 'Cancun safeguards'), include protecting and conserving ecosystem services and enhancing 'other social and environmental benefits'.

Additionally, decision 9/CP.19 encourages entities financing REDD+ to provide financial resources for joint mitigation and adaptation approaches for the integral and sustainable management of forests. The decision also recognizes the importance of incentivizing non-carbon benefits for the long-term sustainability of REDD+ activities. Such non-carbon benefits, and the ecosystem services and social and environmental benefits referred to in the Cancun safeguards, could include those relevant to climate change adaptation.

HOW CAN CLIMATE CHANGE ADAPTATION SUPPORT REDD+?

The choice of climate change adaptation approaches depends on the climate change projected to occur within a region and the local context. Ecosystem services need to be considered in relation to human adaptation because livelihoods and economic sectors depend on them. In addition, ecosystems can provide a range of adaptation options. Therefore, conserving forests and ecosystem services they provide can be both an adaptation measure, and contribute to REDD+ objectives at the same time. For example, using ecosystem- based approaches such as saxual forest restoration, rather than hard infrastructural approaches such as fences walls, to adapt to increased land degradation and desertification, can enhance forest carbon stocks and protect vital water resources, such as oases.

Actions have the potential to directly reduce both current and future pressures that lead to deforestation and forest degradation. They can therefore help both to reduce emissions and to limit the risk of reversals of emissions reductions and removals.

Considering adaptation needs within REDD+ planning can increase the sustainability of REDD+ actions, particularly in livelihoods, livestock, and water resources, and in forest planning, including ensuring genetically diverse seed stocks and maintaining ecosystem services.

Mongolia has experienced three times the mean global temperature increases in temperature. MARCC (2014)..

Supporting forests to adapt to climate change through actions that maintain characteristics of resilient ecosystems can also decrease the risk of the release of carbon dioxide stored in forests as climate change advances. Characteristics of resilient ecosystems are likely to include diversity of species, genes, ages and structure. Actions that support such characteristics include:

- Reforestation approaches that result in ecosystems with more natural features such mixed-age stands;
- Selecting locations that connect to existing areas of natural forest including along climate gradients;
- Protection of watersheds, riparian zones and oases with forest cover and community-based water resource management strategies, and
- Using management approaches which maximize forest growth through sustainable thinning which means that trees have less competition for water, light and minerals resulting in increased resilience to pest and diseases.

By helping to secure ecosystem services important for adaptation, these actions can reduce vulnerability and related pressures for land-use change.

HOW CAN REDD+ SUPPORT CLIMATE CHANGE ADAPTATION?

Depending on how REDD+ strategies and programmes are structured, the implementation of REDD+ activities has the potential to maintain and enhance ecosystem services important for adaptation. For example, REDD+ actions to restore or conserve forests on steep slopes could improve regulation of surface run-off and sediment transfer into rivers helping to manage soil erosion and water quality, and reduced landslides which may cause damage to infrastructure.