



Director of UNREDD Mongolia National Programme Tungalag.M

Dear Learner,

Welcome to the Mongolia REDD+ Academy journals, providing you with an overview of REDD+ planning and implementation, developed by some of the world's leading REDD+ experts. It has been designed to accompany you in your learning journey, covering all the main REDD+ topics, from the basics to the finer points of setting reference levels, monitoring, allocation of incentives and stakeholder engagement.

The modules presented in this journal will equip you with the necessary knowledge to better understand the various components of Mongolia's work on REDD+

readiness and in determining policies and measures to contribute towards the countries Forest and Climate Change National Strategy.

I encourage you to apply this knowledge and do your part to make REDD+ a success in Mongolia!

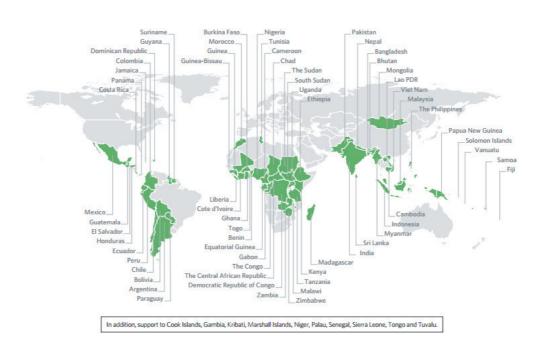




BRIEF INTRODUCTION OF THE UN-REDD MONGOLIA NATIONAL PROGRAMME

Mongolia became a partner country of the UN-REDD Programme in June 2011 and National REDD+ Readiness Roadmap officially adopted by the Ministry of Environment and Green Development and Tourism. UN-REDD Mongolia National Programme based on National REDD+ Readiness Roadmap started to implement in September 2015 approved by the Programme Policy Board.

UN-REDD is a United Nations collaborative initiative on Reducing Emissions from Deforestation and Forest Degradation (REDD+). The Programme was launched in 2008 to assist developing countries prepare and implement national REDD+ strategies. It builds on the 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 program is currently working in over 74 countries, mainly in tropical developing countries. Mongolia is the only country with significant amounts of boreal forest and being the most northerly country and faces unique climate change and ecological issues that are not observed in other countries.



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 or Action Plan and in meeting the requirements under the UNFCCC Warsaw Framework to receive results-based payments. The UN-REDD Programme supports nationally-led REDD+ processes and promotes the informed and meaningful involvement of all stakeholders, including Indigenous Peoples and other forest-dependent communities, in national and international REDD+ implementation.

This comprises work on the four design elements for REDD+, 1 National Strategy &/or Action Plan, 2 National Forest Monitoring System, 3 Safeguards Information System, 4 Forest Reference Level.

The National Programme also counts on key national counterpart institutions and development partners to play active roles and take on specific responsibilities in maintaining the momentum in the REDD+ management processes and prioritizing and implementing those strategic options identified through the Programme.



REDD+ Mongolia

As a signatory to both the UN Framework Convention on Climate Change (UNFCCC, in 1992) and the Kyoto Protocol (1997), Mongolia is fully aware of the causes and potential impacts of climate change. Mongolia is therefore striving to reduce its greenhouse gas (GHG) emissions while maintaining its path of economic development. Mongolia's vast surface area includes approximately 17 million hectares of forest – an area roughly the size of Nepal. These forests can be categorised into two broad zones: northern boreal forests and southern Saxaul forests. The northern boreal forests cover approximately 13.2 million hectares and the southern saxual forest, which is largely an arid zone shrub vegetation covers 4.6 million (Ministry of Environment and Tourism, Mongolia, 2015). M ongolia's forests have great potential to contribute towards the country's sustainable development goals and innovative policies on Sustainable Development. This may arise through the provision of ecosystem services and goods, such as timber, non-timber forest products, water services, and biodiversity, provide resources for communities, such as non-timber forests products and firewood. The implementation of sustainable forest management strategies can also reduce greenhouse gas emissions from reducing forests degradation and deforestation and enhance services and carbon stocks.

REDD+ ACADEMY

The REDD+ Academy is a coordinated REDD+ capacity development initiative led by the UN-REDD Programme and the UNEP Environmental Education and Training Unit, which seeks to match the scale of the global climate change mitigation challenge and enable systematic, focused capacity development to deliver REDD+ on the ground. The REDD+ Academy is a comprehensive response to capacity building needs identified by the countries receiving

Chapter 6 I Forest Reference [Emission] Levels (FRELs) for REDD+

support from the UN-REDD Programme. The main aim of the REDD+ Academy is to empower potential "REDD+ champions" with the requisite knowledge and skills to promote the implementation of national REDD+ activities. The REDD+ Academy is also available (in English) on the following website and can do online tests and collect a certificate for completed courses:

http://unccelearn.org/login/index.php

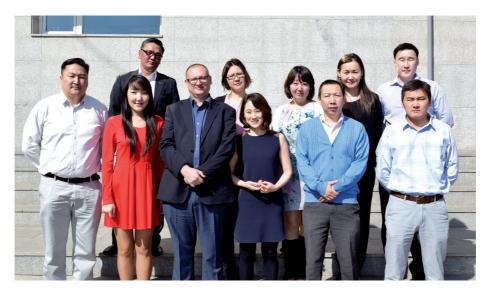
UNITAR

The United Nations Institute for Training and Research (UNITAR) is a principal training arm of the United Nations, working in every region of the world. We empower individuals, governments and organizations through knowledge and learning to effectively overcome contemporary global challenges. Our training targets two key groups of beneficiaries: the delegates to the United Nations and others who develop intergovernmental agreements establishing global norms, policies, and programmes, and the key national change agents who turn the global agreements into action at the national level.

REDD+ Academy Journals in Mongolia

The REDD+ Mongolia journals have been developed from the REDD+ Academy journals, for more details on REDD+ National Program in Mongolia please see the following sites.

Website: www.reddplus.mn Facebook: REDD+ in Mongolia Twitter: REDD+ in Mongolia



Programme management unit, UN-REDD Mongolia national programme

LEARNING MODULES



FOREST, CARBON SEQUESTRATION AND CLIMATE CHANGE



UNDERSTANDING REDD+ AND THE UNFCCC



DRIVERS OF DEFORESTATION AND FOREST DEGRADATION (DDFD)



NATIONAL STRATEGIES AND ACTION PLANS



NATIONAL FOREST MONITORING SYSTEMS (NFMS) FOR REDD+



FOREST REFERENCE EMISSION LEVELS



POLICIES AND MEASURES
FOR REDD+ IMPLEMENTATION



REDD+ SAFEGUARDS UNDER THE UNFCCC



REDD+ FINANCE

6

FOREST REFERENCE EMISSION LEVELS

THIS MODULE PRESENTS ONE THE FOUR ELEMENTS FOR REDD+ READINESS, FOREST REFERENCE (EMISSION) LEVELS.



THE SECTION INCLUDES EXPLANATIONS ABOUT:

- What is a FREL/FRL
- Guidance to support FREL/FRL and
- How to submit a FREL/FRL

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Key messages

- Forest Reference Emission Levels and Forest Reference Levels (FREL/FRL) are benchmarks for assessing the performance of each country in implementing REDD+ activities.
- 2. The FREL/FRL submission is the only REDD+ element that undergoes a technical assessment
- **3.** The type of approach to FREL/FRL construction a country chooses will depend on analysis of drivers and deforestation and forest degradation and national circumstance.

Introduction

This module presents one the four elements for REDD+ readiness, Forest Reference (Emission) Levels.

The module includes explanations about:

- 1. What is a FREL/FRL;
- 2. Guidance to support FREL/FRL; and
- 3. How to submit a FREL/FRL.

WHAT IS A FREL/FRL?

Forest Reference Emission Levels and Forest Reference Levels (FREL/FRL) are benchmarks for assessing the performance of each country in implementing REDD+ activities.

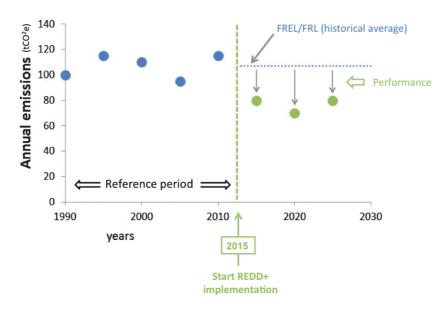
In its decisions, the UNFCCC refers to Forest Reference Emission Levels and/or Forest Reference Levels, and although the difference between those two concepts has not been clarified, UN-REDD has provided the following interpretation:

4. A **Forest Reference Emission Level** (FREL) includes activities that reduce emissions only. Thus the scope of a FREL would be, for example, reducing emissions from deforestation and/or forest degradation.

5. Forest Reference Level (FRL) includes both activities that reduce emissions and activities which increase removals. Thus the scope of a FRL could include the same activities as a FREL plus for example enhancement of forest carbon stocks.

Figure 6.1 gives a graphical example of a possible FREL/FRL, where a country uses a simple historical average of forest emissions as its FREL/FRL.

FIGURE 6.1 FOREST REFERENCE LEVEL EXAMPLE USING ONLY HISTORICAL DATA



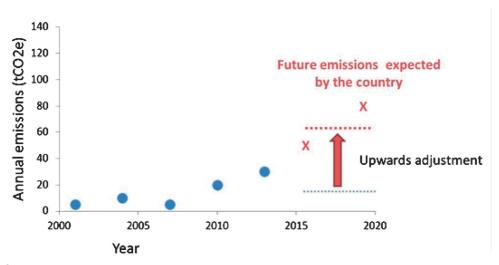
Source: UN-REDD Programme

When developing a FREL/FRL, a country should carefully consider what emissions/ removals it expects from forest-related activities if it were not to take any REDD+ actions. In the example above, with no clear trend in historical emissions, a historical average may provide a good predictor of future emissions expected in the absence of REDD+ implementation, or "business as usual" emissions. However, in some countries the past may be a poor predictor of the future, which may for example be the situation in high forest cover and low deforestation countries (HFLD countries). A country may propose an adjustment for national circumstances (as illustrated in Figure 6.2), provided that the information justifying the adjustment is transparent, accurate, consistent and complete (i.e. the information allows for reconstruction of the FREL/FRL).

REFLECTION POINT

Why might the past not be a good indicator of future emissions from forests, particularly in HFLD countries?

FIGURE 6.2 FOREST REFERENCE LEVEL EXAMPLE INCLUDING AN ADJUSTMENT FOR NATIONAL CIRCUMSTANCES



Source: UN-REDD Programme

Why develop a FREL/FRL?

There are several reasons for developing FREL/FRLs:

- Countries may wish to express their contribution to international mitigation through REDD+ actions under the UNFCCC;
- Countries may wish to assess progress on the outcomes of policies and measures taken to mitigate climate change in the forestry sector for domestic reasons;
- Countries may wish to support their national greenhouse gas reporting and
- Countries may wish to access results-based payments (RBP). According to UNFCCC decisions, eligibility for results-based payments requires an assessed Forest Reference Level.

Results of REDD+ implementation are measured against the FREL/FRL and in the context of Results-based payments (RBPs) and should be reported in a technical annex to the biennial update report (BUR) (Decision 14/CP.19).

Results-based payments under the UNFCCC can come from various sources, including the Green Climate Fund, the official financial entity of the UNFCCC. The Green Climate Fund has not yet made any investments, but it hopes to begin accepting proposals in 2015, although the conditions under which results-based finance (RBF) will be provided have not yet been clarified.

Currently there are several initiatives that provide results-based payments for demonstration activities (i.e. pilot testing RBP), like the Forest Carbon Partnership Facility's Carbon Fund¹. Reference Levels² are proposed to the Carbon Fund as an emission reduction program idea note, (ERPIN), and then further developed as operational Reference Levels that are used in the Emission Reduction Payment Agreement (ERPA). The FCPF Carbon Fund provides guidance for ER programs that is consistent with the UNFCCC, but also goes beyond it and provides additional details on requirements to engage in a results-based finance transaction with the Fund. An overview of emerging country approaches to FREL/FRLs is provided in the UNREDD publication Emerging approaches to FREL/FRLs for REDD+³. More information on finance for REDD+ activities can be found in *Module 9: REDD+ Finance*.

How does the FREL/FRL relate to the other elements of REDD+?

As was seen before, the UNFCCC has set a framework for REDD+ (Decision 1/CP. 16) requesting four elements to be developed by a country in order to participate in REDD+:

There is a logical relation between these elements:

- 1. REDD+ actions are implemented through a National Strategy, discussed in *Module* 4: *National Strategies and Action Plans*;
- 2. Emissions and removals from the forest are monitored through the NFMS, discussed in *Module 5: National Forest monitoring Systems*;
- 3. The FREL/FRL is the benchmark against which performance in implementing REDD+ is assessed, discussed in this module; and
- 4. The SIS may ensure no harm is done when implementing REDD+, discussed in *Module 8: REDD+ Safeguards under the UNFCCC*.

Information needs to be submitted to the UNFCCC for the FREL/FRL and the

¹ https://www.forestcarbonpartnership.org/carbon-fund-0

² The Carbon Fund uses the term "Reference Levels" while the UNFCCC decisions generally use Forest Reference

³ Emerging Approaches to Forest Reference Emission Levels and/or Forest Reference Levels for REDD+: available at: http://www.un-redd.org/FRELPublication/tabid/794487/Default.aspx

safeguards. Some relations between the REDD+ elements are 'formalized' in UNFCCC Decisions, namely the relation between the NFMS and the FREL/FRL: the NFMS should provide data and information suitable for measuring, reporting and verifying (MRV) anthropogenic forest-related emissions by sources and removals by sinks (Decision 11/CP.19, p.3), and MRV should maintain consistency with the established, or updated, FREL/FRL (Decision 14/CP.19).

Consistency between the data collected through the NFMS and the data used to establish the FREL/FRL is crucial to ensure "results" — or the difference between measured and reported emissions/removals and the FREL/FRL - reflect performance and not e.g. a difference in data or methodologies.

?

REFLECTION POINT

Can you explain, in your own words, why it is so important to have consistency of data collection for both NFMS and FREL/FRLs?

Guidance from the UNFCCC on FREL/FRLs

Guidance on FREL/FRLs is provided through Decisions 4/CP.15, 12/CP.17 and 13/CP.19. Decision 4/CP.15 is the first decision mentioning FREL/FRLs. It states that FREL/FRLs should be established transparently taking into account historic data, and adjusted for national circumstances. Accordingly, Decision 12/CP.17 provides guidance on FREL/FRL construction (modalities for FREL/FRLs) and the annex to this decision provides guidance on the information which needs to be included in a FREL/FRL submission to the UNFCCC. Decision 13/CP.19 provides details on the technical assessment of the FREL/FRLs.

From Decisions 4/CP.15, 12/CP.17 and 13/CP.19 some elements can be extracted which countries will need to consider and on which countries have to make choices. These elements are:

- 1. Scale (area covered by the FREL/FRL);
- 2. Scope (REDD+ activities, pools and gases included in the FREL/FRL);
- 3. Forest definition;
- 4. Historical data (selection and analysis of activity data and emission factors); and
- 5. National circumstances and FREL/FRL construction approach.

The UNREDD publication "Technical considerations for Forest Reference Emission Level and/or Forest Reference Level construction for REDD+ under the UNFCCC"⁴ provides a description of possible benefits and risks associated with different choices for each of these elements and offers practical considerations to facilitate decision-making.

Combining the elements to construct a FREL/FRL?

Figure 6.4 below provides a simplified possible flow for FREL/FRL construction, combining the elements or building blocks for FREL/FRL construction discussed in the section above. Certain choices on FREL/FRL elements are more likely to be driven by the quality and type of data collected through the National Forest Monitoring System (NFMS) and other choices may be taken in view of the National Strategy. Depending on the circumstances of a particular country, other flows than those suggested in the Figure are possible. For example, a country may decide to include certain types of woodland in its National Strategy, if the country wanted to assess performance in these woodlands, it would ensure the forest definition would include the types of woodland in question.

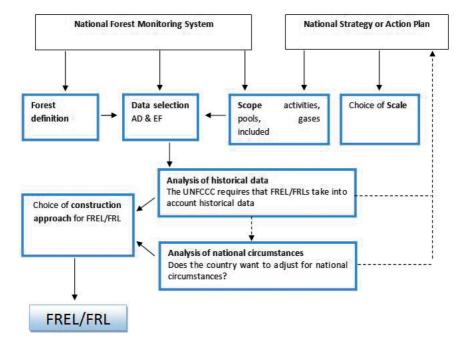


FIGURE 6.4 SIMPLIFIED FLOW FOR FREL/FRL CONSTRUCTION

Source: FAO 2015

 $^{^4\} Available\ at\ http://www.unredd.net/^unredd/index.php?view=document\&alias=14118-technical-considerations-for-forest-reference-emission-level-andor-forest-reference-level-construction-for-redd-under-the-unfccc\&category_slug=frl\&layout=default\&option=com_docman\<emid=134$

Assessment of significant activities, pools and gases, should drive the choice for scope, but may be influenced by the availability and quality of data from the National Forest Monitoring Systems (NFMS) and other relevant sources. Additionally, choices for scope may be guided by what activities a country proposes in its National Strategy or Action Plan (NS/AP). A country may decide to take a stepwise approach, starting with a narrow scope (e.g. deforestation, above and below ground biomass only) with the intention of adding other activities, pools and gases over time.

A country may also decide to start at the subnational level. The NS/AP could inform the choice of the initial scale of implementation for REDD+ but other elements may come into consideration, including data availability as well as implementation and monitoring capacity.

Before selecting an approach to FREL/FRL construction, a country may want to analyze its data and try to understand the dynamics of anthropogenic forest-related emissions and removals. The analysis of historical data and national circumstances should provide the country with a better understanding of drivers of deforestation and forest degradation, information which not only informs Forest Reference Level construction but may also inform the process of the NS/AP. An analysis of national circumstances may provide a country with an enhanced understanding of how drivers may affect future trends of forest-related emissions and removals, which in turn can support decision-making on potential adjustments. More information on such an analysis can be found in *Module 3: Drivers of Deforestation and Forest Degradation*. Altogether, these analyses can help countries take informed decisions on approaches to the construction of FREL/FRLs and provide a robust basis for an eventual submission to the UNFCCC.



REFLECTION POINT

Why is it so important to consider national circumstances and how drivers might affect future trends of forest-related emissions and removals?

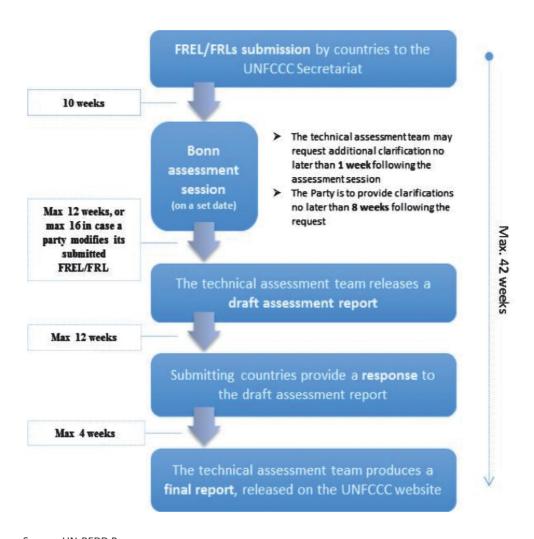
Submitting a FREL/FRL

Once it is constructed, developing countries may, on a voluntary basis and when deemed appropriate, submit their proposed FREL/FRLs to the UNFCCC. The technical assessment is intended to support the capacity of developing country Parties for the construction and future improvement of their FREL/FRL. It offers a facilitative, non-intrusive, technical exchange of information on FREL/FRL construction. The Assessment Team conducting the assessment will comprise two LULUCF experts from the UNFCCC expert roster.

Official submissions of the FREL/FRL to the UNFCCC are made by the national focal point to the UNFCCC. The technical assessment of the submitted FREL/FRL will start with an assessment session organized in Bonn once a year. The timeline for the technical submissions is outlined below in Figure 6.5.

FREL/FRL submissions, as well as the final report resulting from the technical assessment mentioned in the flow chart and the modified submission after the technical assessment are published on the UNFCCC website⁵.

FIGURE 6.5 SUBMISSION PROCESS FOR FREL/FRL



Source: UN-REDD Programme

⁵ UNFCCC website: http://unfccc.int/redd

RELEVANT DECISIONS FOR FREL/FRLS

Decision 4/CP.15

FREL/FRLs should be established transparently taking into account historic data, and adjust for national circumstances

Decision 1/CP.16

The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention. REDD+ activities are defined and FREL/FRLs are mentioned as one of the four elements requested to be developed for REDD+.

Decision 12/CP.17

Modalities for FREL/FRLs and guidelines for submission of information on FREL/FRLs

Decision 11/CP.19

Modalities for national forest monitoring systems

Decision 14/CP.19

Modalities for measuring, reporting and verifying

Decision 13/CP.19

Guidelines and procedures for the technical assessment of submissions from Parties on proposed forest reference emission levels and/or forest reference levels

ADDITIONAL RESOURCES

Websites to get you started

http://unfccc.int/land_use_and_climate_change/redd_web_platform/items/6733.php

UNFCCC REDD Web Platform: Forest Reference Levels and Forest Reference Emission Levels. The platform provides an overview of information submitted by different

entities on FREL/FRL construction.

https://www.forestcarbonpartnership.org/carbon-fund-methodological-framework The Carbon Fund of World Bank's Forest Carbon Partnership Facility provides guidance for Forest Reference Level construction which is consistent with UNFCCC but more restrictive on several issues. It contains a set of 37 criteria and related indicators (C&I), associated with five major aspects of Emission Reductions Programs: level of ambition, carbon accounting, safeguards, sustainable program design and implementation, and ER Program transactions.

Case Study

Brazil's FREL submission to UNFCCC

In June 2014, Brazil became the first country to submit a FREL to UNFCCC. Before the end of 2014, Brazil submitted a modified FREL submission providing more detailed information in response to the facilitative, technical exchange with the Technical Assessment team (AT). The Technical Assessment report (TA report) was posted on the UNFCCC website⁶ (Brazil, 2014).

Stepwise approach: The evolution from Brazil's deforestation *baseline*⁷ used in the Amazon Fund to the FREL submitted to the UNFCCC could be considered an illustration of a stepwise approach. The pools considered in the FREL expanded compared to the Amazon Fund approach (see FAO 2014) and more detailed information was used for Emission Factor estimations. In its *baseline* calculation, the Amazon Fund first adopted a conservative estimate of 100 tC/ha for above ground biomass (data in literature ranged from 130 and 320 tC/ha). For the subsequent UNFCCC submission, a carbon map was produced resulting in multiple forest types and location-specific emission factors. Brazil's FREL submission states that over time it will include additional activities such as degradation, as well as other biomes beyond the Amazon, as steps towards development of a national level FREL.

REDD+ activities included: The FREL only includes deforestation of primary forest, where Brazil considers deforestation any clear cut of primary forest with a minimum mapping unit of 6.25 ha. The reason provided by Brazil for including only deforestation is that this activity represents the largest source of emissions and the time series available for assessing degradation is too short to allow an adequate understanding of the degradation process. In an Annex to the submission (not subject to the technical assessment), Brazil provides preliminary results of the assessment of degradation, which estimates emissions from degradation at approximately 59% of those from deforestation. In the TA report the AT acknowledges that Brazil included the most

⁶ UNFCCC FREL/FRL submissions and technical assessment reports to date can be downloaded from http://unfccc.int/methods/redd/items/8414txt.php

⁷ Brazil uses the term baseline for the Amazon Fund, the term FREL refers to Brazil's UNFCCC submission

Chapter 6 I Forest Reference [Emission] Levels (FRELs) for REDD+

significant activity, the most important biome and the most significant pools in terms of emissions from forests. Furthermore, the AT considers that degradation is a significant activity based on the estimates provided by Brazil. The AT also notes that there is no evidence of displacement of emissions (i.e. decreased deforestation in the Amazonia biome resulting in increased degradation) and the current exclusion appears to be conservative in the context of constructing the FREL.

Future submissions and areas for improvement: Brazil indicates its intention to scale up to the national level in the future, developing FRELs for the remaining biomes in order of emissions importance. Brazil also expects that it's understanding of degradation will improve with time as new data becomes available, allowing for the future submission of a FREL for degradation. Brazil mentions in its submission some areas for improvement. E.g. currently the carbon map is based on a combination of sample-plot data (RADAMBRASIL) and literature. Brazil will replace this with data from its first NFI cycle as it expects that by 2017 the NFI will be completed in all states.

Areas for improvement identified by the AT are digitization of deforestation maps (activity data for 1996-1997 are in analogue format, later dates in digital format), continuation of improvement of the carbon map, future treatment of emission from dead-wood and non-CO2 to be consistent with the GHG inventory (where the AT notes that the current omission is likely to be conservative) and future treatment of degradation.

Exercises

1. There are many reasons for a country to develop FREL/FRLs, circle the correct reasons below, use the two empty boxes to suggest two reasons not mentioned:

		Countries may wish	Reason 1
Countries may		to assess progress	
wish to express	A country may	on the outcomes	
their contribution	decide that a FREL/	of policies and	
to international	FRL would provide	measures taken to	
mitigation through	employment and	mitigate climate	
REDD+ actions	increase their GDP.	change in the	
under the UNFCCC.		forestry sector for	
		domestic reasons.	
			Reason 2
Countries may wish to access resultsbased payments (RBP).	A country decides that a FREL/FRL would contribute to an increase in tourist numbers	A FREL/FRL would give a country bragging rights at the next COP meeting.	

2. There are four required elements of REDD, circle the 4 elements below:

a National Strategy of Action Plan	r A national vote on REDD+ activities	Safeguards Information System (SIS)
a Forest Reference Emission Level or For Reference Level (FREL/	System (NFMS)	A referendum on climate change

Note

Note

Note













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REDD+ in Mongolia







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