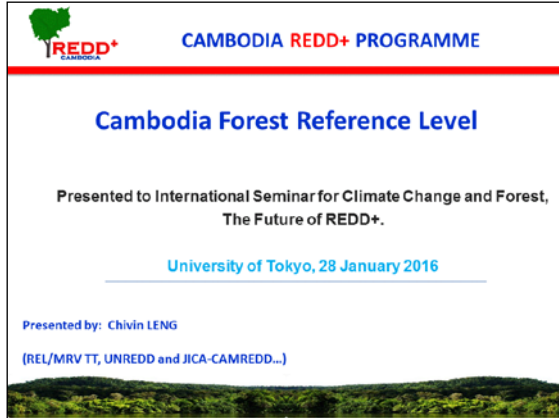


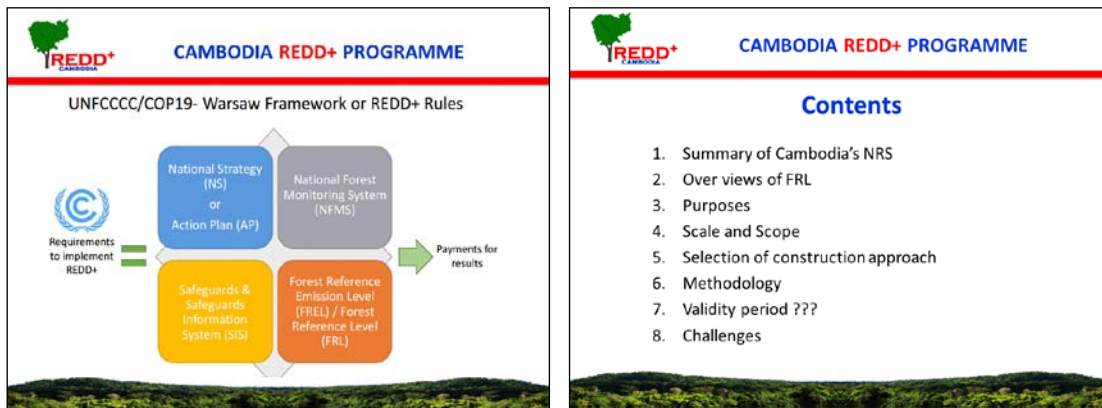
## Cambodia's FREL/FRL<sup>1</sup>

Chivin Leng (Ministry of Agriculture, Forestry and Fisheries, Cambodia)



I will be talking briefly on our national REDD+ strategies and move ahead to the specific objective of the discussion today.

## Overview of FRL



This is us, so everyone concerned. I just would like to take this opportunity to say that among those four components that we have to be submitted for results-based payment, Cambodia has completed three.

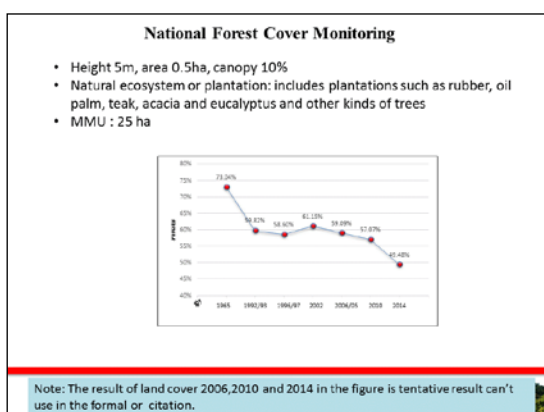
Safeguard may be still in doubt. We are still in cooperation with JICA to produce this one.

<sup>1</sup> Leng 氏による原稿確認は行われていない

## Session 1




This is the country's information. We have 181,000 square kilometers and a population of more or less 15 million that is increasing very fast. We are a tropical rainforest country. From the past, we have more than 13 million hectares of forest. The annual rainfall is between 2100 to 3000 mm. You can imagine that from the image of vegetation where mostly it covers entire Cambodia, but now let us see here.



This is one of the graphs showing that we are decreasing rapidly. More or less, the vegetation that you have been seeing just now, most of is gone. Especially the recent assessment is showing compared to the previous assessment, it is showing where it was, but this is according to our national definition. I will talk more how it is different between national definition and the FREL definition under the REDD+ Program.


I am touching on the national REDD+ strategy that we are establishing. We have four technical groups plus a consultation group and the Cambodian REDD+ task force. We build on readiness phase step-wise approach. We are following steps one through four, and finally we have also intent to submit to COP, but now the focal point of doing this one is still in doubt.



### CAMBODIA REDD+ PROGRAMME



#### Why National REDD+ Strategy?

- One of the four required elements under the WF, and Cambodia has ambitions to move rapidly to RBF under the WF.
- Key policy documents and presenting the strong commitment of the country government to address D&D
- Provide clear direction to the government and stakeholders to achieve goal in reducing/eliminating D&D
- Potential for seeking more funding support from different donor requirements



#### Purposes:

- The Cambodia's NRS has been developed for enhance implementation of policies and measures that promote conservation and sustainable management of forests and biodiversity, plus socio-economic development that improves the livelihoods of forest dependent communities and indigenous peoples
- To provide a basis and direction for integrated governance and regulatory systems to ensure transparent, accountable, effective, efficient and equitable implementation of policies and measures.
- To fulfil Cambodia's requirements under the UNFCCC to be eligible to receive results-based payments for implemented REDD+ policies and measures;

This is how the national REDD+ strategy is moving. One out of four requirements under Warsaw Framework that is Cambodia has ambition to move rapidly from results-based payment to results-based finance under the Warsaw Framework. The existing government policy is there that we are following. Especially we are addressing drivers of deforestation.

This is the purpose of REDD+. There are many so I will not go into detail. The first thing that has come in the first is this REDD+ is enhancement and implementation of domestic policy especially to conserve our sustainable forest management by providing social support to local livelihood.



#### 3.4 Scopes and Scale

The Cambodia's NRS is in due course implemented at the national level, with interim sub-national activities to experiment selected policies and measures.

To align with the current scopes and capabilities of the NFMS and FREL/FRL, the NRS initially addresses drivers of deforestation and enhancement of forest carbon stocks through afforestation/ reforestation activities.

The NRS contributes to climate change mitigation actions in the forest sector by undertaking all the following activities:


- Reducing emissions from deforestation
- Reducing emissions from forest degradation
- Conservation of forest carbon stocks
- Sustainable management of forests
- Enhancement of forest carbon stocks

#### Goals

The following goals of NRS build on activities identified and completed as part of the Cambodia REDD+ Roadmap(2011).








This is the scope and scale of REDD+ development. We are especially considering only two scopes. Those are deforestation and the enhancement of forest carbon stocks through afforestation and deforestation activity. Among those five activities under REDD+, we are addressing two; one mainly, but at this time we are considering another one, which is the forest degradation.

Our goal is that we are following the step-wise approach. We have three steps, but now we can say that we have passed this step, so we are moving to the piloting or testing our methodology and practice.

## Session 1

### Cambodia's FREL/RLs

	<p><b>Overview of progress on FREL/FRL in Cambodia</b></p> <ul style="list-style-type: none"><li>• Cambodia FRL is completed and waiting for official approval</li><li>• Intends to submit next month or so, aim participate in technical assessment 2016</li><li>• Main reasons for FREL/FRL submission to the UNFCCC are:<ul style="list-style-type: none"><li>• Follow and support UNFCCC process</li><li>• Intends to implement REDD+ mitigation actions and therefore intends to monitor and assess these actions in Country</li><li>• Accessing result- based payments</li></ul></li></ul> 
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This is what we are talking about today. How is the Cambodian FREL being developed?

This is the overall progress of Cambodian FREL. We have completed the document. This document, because of a linkage between national forest monitoring system and this FREL, we are likely completed. What is the constraint is that we have already submitted for the government approval, so we are waiting for this issue. We intend to submit next month also. This is what I will push on. We aim to participate from this year for the technical assessment. The main reason from FREL under UNFCCC, but the important last point is the country would like to assess results-based payment.



**Institutional structure**

- In Cambodia three government agencies, namely FA, MoE and FIA manage forests
- FA is respond for wall to wall of land use/cover mapping.
- field forest survey is being implemented individually by FA, MoE and FIA.




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This shows the composition of relevant institutes, as our friend from Myanmar said, one country mapping. Cambodia also uses the one country mapping. Comparing from the previous one, it is what we call separately or individual consideration reason, but now as you can see that ranging from international to national to this one is represented from indigenous group and research faculty, etcetera, so we are quite unique.

Purpose of FREL/FRL in Cambodia	REDD+ FREL/FRL scale in Cambodia
<ul style="list-style-type: none"> <li>To assess performance of CC mitigation actions; FRL is developed for both domestic and international use.</li> <li>To support implementation of future REDD+ activities</li> <li>To define the period of development of a revised FRL and the cycle/period of REDD+ implementation</li> <li>To develop FRL in Cambodia primarily for UNFCCC, but also considering climate finance external to the UNFCCC</li> </ul>	<ul style="list-style-type: none"> <li>FRL under development for <b>National Scale</b></li> <li><b>Reasons:</b> <ul style="list-style-type: none"> <li>Data availability (Nat. scale)</li> <li>Inter-Institutional collaborations (Forest estate under three institutions)</li> <li>Linkages to National policies to implement REDD+</li> <li>Human resources and capacities</li> <li>Ultimate goal of UNFCCC</li> </ul> </li> </ul>
CAMBODIA REDD+ NATIONAL PROGRAMME	CAMBODIA REDD+ NATIONAL PROGRAMME

That is the purpose of establishment of FREL Cambodia. The first is to assess performance of climate change mitigation. FREL is developed both for domestic and international use. We are focused more on our domestic consumption for sustainable forest management. To support implementing for future REDD+ activity, this is very important. Therefore, FREL can be as the benchmark step to have a measurement on implementing REDD+ activity. To define the period to develop and revise in FREL is according to cycle, so Cambodia considers a four-year cycle. To develop FREL in Cambodia is primarily for UNFCCC, but we are also considering the climate finance external to UNFCCC for support.

The FRELs under development are what we consider as a national scale. We develop from the top-down, but at the same time, many projects already started from the bottom. The biggest issue is availability. Until now we still continue to collect those land-use data. According to step-wise approach from now on until the next assessment, we will continue improving our accuracy mapping. Institutional collaboration: the forest is under three institutions responsible for Cambodia. Lastly, it is because of immediate goal to submit to UNFCCC.

REDD+ FREL/FRL scope in Cambodia	Historical data Use and Construction approach chosen
<ul style="list-style-type: none"> <li><b>Activities:</b> <ul style="list-style-type: none"> <li>Aim: Include only <b>Deforestation</b></li> <li>Consideration: Degradation (Wood fuels), SFM*</li> </ul> </li> <li>Note: Limited data on Degradation at present, however REDD+ strategy aims in medium term on Enhancement and SFM inclusion. Deforestation/Degradation also dependent on adoption of REDD+ forest definition</li> <li><b>Pools:</b> <ul style="list-style-type: none"> <li>Aim: <b>AGB, BGB</b> (ratio),</li> <li>Consideration: Deadwood, Litter, soil (limited data)</li> </ul> </li> <li><b>Gasses:</b> <b>CO<sub>2</sub></b> (no data other gasses, conservative)</li> </ul>	 <ul style="list-style-type: none"> <li>(i) As the baseline map, "2014 map" is produced by using 2013/2014 satellite image data (LANDSAT 8). This map covers the full country (Forest/Non-Forest) and will function as a basis for future monitoring of land use and land use changes;</li> <li>(ii) Two Historical maps are used to derive historical land use and carbon stock change <ul style="list-style-type: none"> <li>(i) By upgrading of existing 2010 FA map and consideration of other data sources for non-forest areas (MRC map 2010). Verification of the map is done by using ALOS AVNIR2 data for inaccessible areas. (Size of forest and non-forest area may change as the result of upgrading or modification).</li> <li>(ii) By translating the 2005/2006 FA map in a comparable legend. Verification of this map has already been carried out by GRAS. And consideration of other data sources for non-forest areas</li> </ul> </li> </ul>
CAMBODIA REDD+ NATIONAL PROGRAMME	CAMBODIA REDD+ NATIONAL PROGRAMME

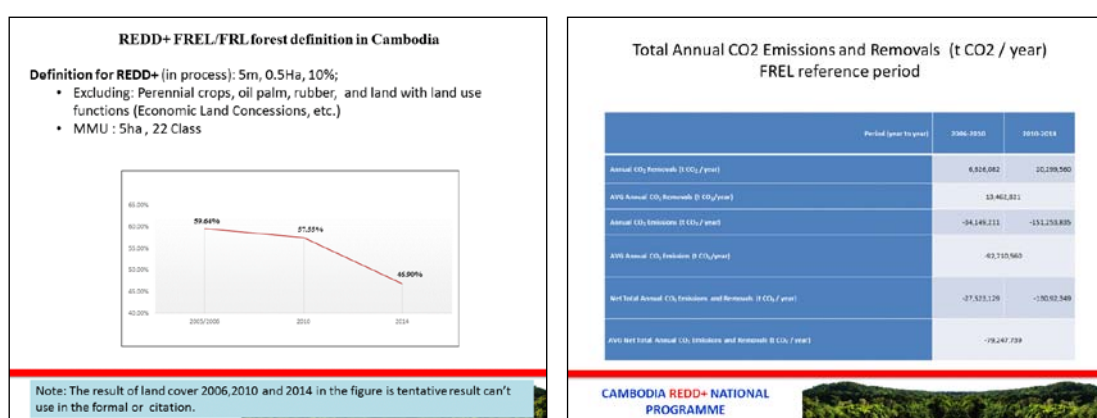
The activities: we are considering deforestation. This year we are also in the work plan of forest degradation. How we can be testing forest degradation assessment? The pool that we consider is aboveground biomass and belowground biomass. For the future, we will consider deadwood, litter,



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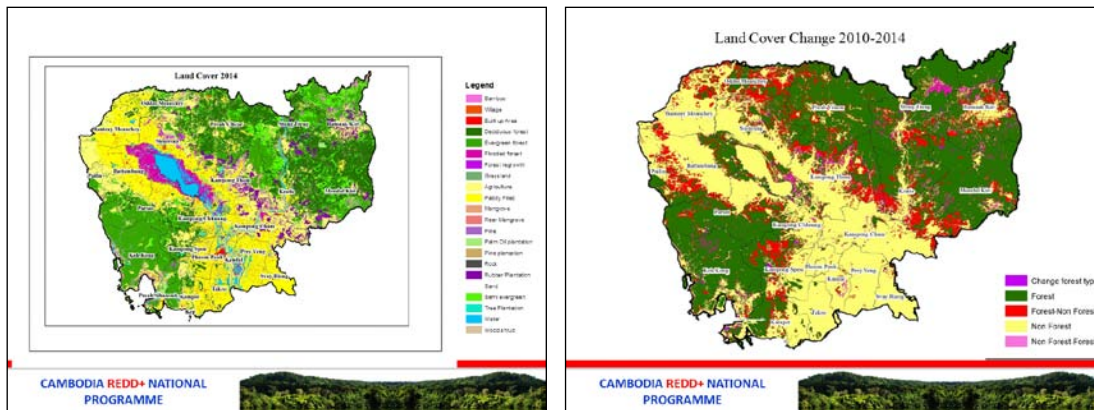
and soil. For the gas, we consider carbon dioxide because it is a major contribution to Cambodian emissions from the forest sector.

This is the overall view explaining the historical data that we are selecting in the construction of the FREL approach. We consider three different map studies, but in comparing them, we just have only two endpoints. From these three mappings, we already have the national assessment at the national scale, but under REDD we are considering these three mappings and revising those three mappings by checking consistency, adjustments, and other things. Therefore, we have a very nice result for FREL construction.



This is the result for FREL under the REDD+ program for Cambodia. We are following slightly different from our national definition. We are considering a bit different. What is different is that we are excluded from the national definition. It is the perennial crops, oil palm, rubber, and land with land-use function (example: economic land concessions). In Cambodia we verify and subtract from the national definition. The minimum mapping unit is five hectares, so different, and also the classes. Previously, we consider only eight classes, but under REDD+ we consider land cover and land use. Therefore, it will become 22 classes. That is the graph showing the result. You can imagine that from this year in 2006 to this year 2010, and comparing 2014, my goodness!

That is the result showing the carbon dioxide emission and removals in tons per year. The minus one is showing the emission part, so you can compare from 2006 to 2010 and 2010 to 2014. For example, from the net total annual carbon dioxide emissions and removal, you can see from here and here.



This map is showing a new map that we have produced under consistency, accuracy, and other things. We have produced three new maps. The first one is in 2006 under 22 classes; 2010, 2014, last updated maps.

This is the map cover change.

**REDD+ FREL/FRL methodology in Cambodia**

- Methodology: Historical Average

Reasons:

- Conservative
- Available data still limited for projections

- Adjustments to National circumstances will be reviewed especially in regard to 2012 moratorium on new land concessions. However as granting of ELCs has reduced, area of allocation SELCs has risen since.

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That is the methodology we are considering, which is historical average. The reason we are selecting this methodology is because of conservativeness. The available data is still limited, so we are thinking that eight years is more conservative. The adjustment to national circumstance will be reviewed, especially from memorandum of government policy in 2012. We put on our future projection.

