

Cambodia • Lao PDR • Thailand • Viet Nam
For sustainable development



Council Study

Development Scenarios for the Agriculture and Land Use Change



6th RTWG Meeting
Phnom Penh, Cambodia
17-18 December 2015

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1. BACKGROUND

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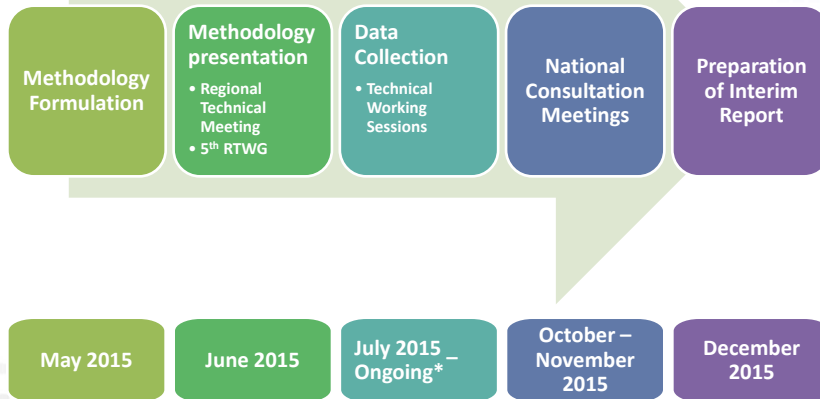
Objectives

- a) Develop and agree on a common methodology for the scenario development
- b) Collect the necessary information to document the Agriculture and land use change Thematic area development for three time horizons
- c) Formulate scenarios for the thematic area for evaluating their impacts on the LMB



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Activities



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Member Countries Participation in Formulation of Development Scenarios



- Progress of data collection activities highly depend on inputs from MCs
- Regional Technical Meeting
- 4 Technical Working Meetings were conducted with the National Consultants
- 4 National Consultation Meetings

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Technical Working Meetings



Discussions on:

- (1) Technical guidance for the activities of scenario development
- (2) Data requirements and handling data gaps
- (3) Quality Control of the first data collected
- (4) Role of the National Consultants for Agriculture land use change and Mining on Impact Assessment
- (5) Preparation of the National Consultation meetings

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NATIONAL CONSULTATION MEETINGS



- ▶ National Consultation Meetings
- ▶ Thailand:
Held in Bangkok on **26th October**
- ▶ Vietnam:
Held in Ho chi Minh on **13th November**
- ▶ Cambodia:
Held in Phnom Penh on **5th November**
- ▶ Laos
 - Held in Vientiane province on **27th November**

KEY RESULTS

- Approval of the Scenario formulation methodology
- Take note on the progress made so far by the project
- Take note on the activities performed and to be achieved by the national consultants

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2. SUMMARY OF DATA COLLECTED

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Activity of MCs Comparison of data collection and reporting



Dataset	Cambodia	Laos	Thailand	Viet Nam
Dataset for scenario formulation	No dataset provided yet	No dataset provided yet	No dataset provided yet	No dataset provided yet
Report on scenario formulation	Not prepared yet	Not prepared yet	Not prepared yet	Not prepared yet
Dataset for rainfed agriculture	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed
Dataset for forestry	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed
Dataset for mining	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed	Not prepared yet, but data sheet for 3 scenarios were prepared and submitted- To be reviewed

Not provided Incomplete

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SUMMARY BY COUNTRY

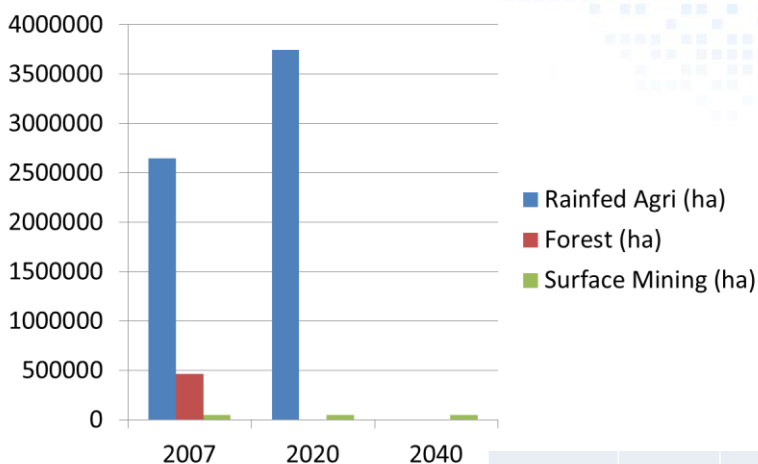
Development scenarios (Rainfed Agriculture)	Cambodia	Laos	Thailand	Viet Nam
Early Development Scenario ED-2007	+++	+++	+++	++
Definite Future Scenario DFS-2020	++	++	+++	+++
Plan Development Scenario PDS-2040	Work in progress	Work in progress	Work in progress	Not available
Development scenarios (Forestry)				
Early Development Scenario ED-2007	++	Work in progress	+++	+++
Definite Future Scenario DFS-2020	Work in progress	+++	+++	+++
Plan Development Scenario PDS-2040	Not available	Not available	Not available	Work in progress
Development scenarios (Mining)				
Early Development Scenario ED-2007	+++	+++	+++	+++
Definite Future Scenario DFS-2020	+++	+++	+++	+++
Plan Development Scenario	++	+++	Not available	++



+++	Finalized, reviewed and completed at the province level
++	To be reviewed
+	Draft document
Not available	Dataset not available for the study
Work in progress	Dataset under construction, not communicated yet

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Cambodia



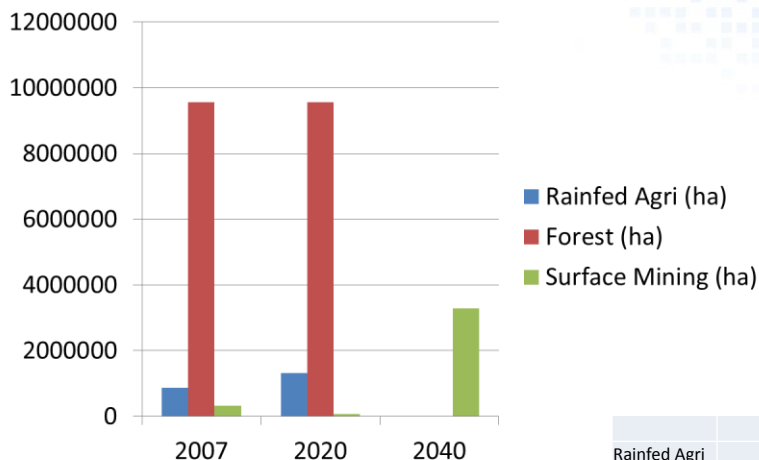
Forest= production forest only

ND=No Data

	2007	2020	2040
Rainfed Agri (ha)	2646854	3744500	ND
Forest (ha)	462769		ND
Surface Mining (ha)	47977	47977	47

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Laos

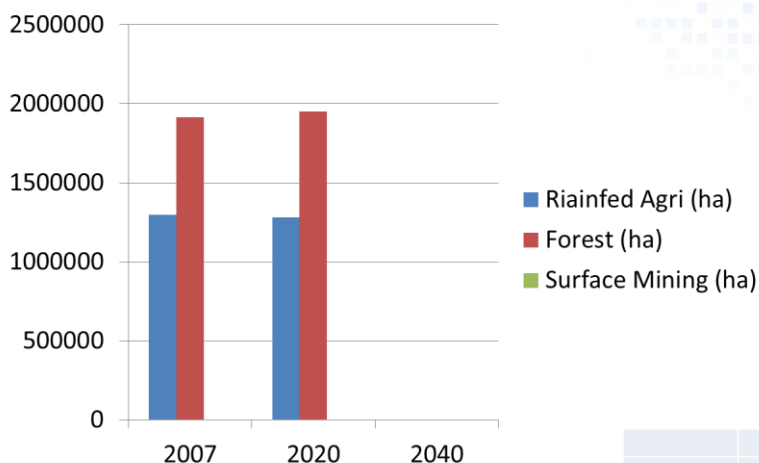


	2007	2020	2040
Rainfed Agri (ha)	861920	1322724	ND
Forest (ha)	9552425	9552425	ND
Surface Mining (ha)	323114	70629	327974

ND=No Data

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Thailand

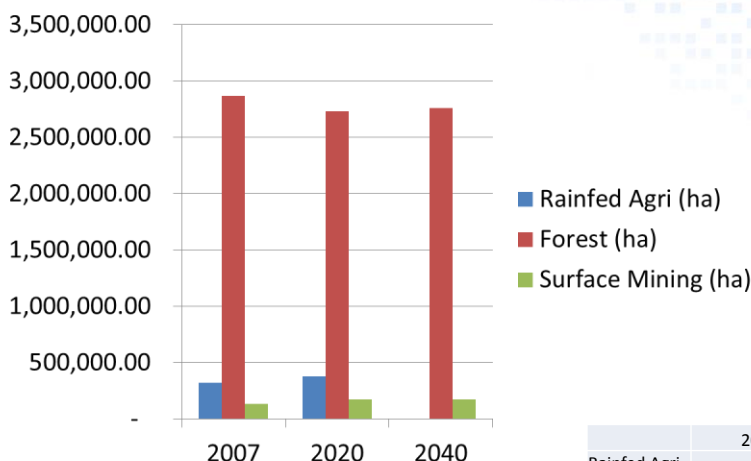


	2007	2020	2040
Riainfed Agr(ha)i	1298958	1282426	ND
Forest (ha)	1914286	1951297	ND
Surface Mining (ha)	1352	864	ND

ND=No Data

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Viet Nam



ND=No Data

	2007	2020	20
Rainfed Agri (ha)	322,556	378,783	ND
Forest (ha)	2,868,708	2,733,780	2,760,27
Mining (ha)	132,648	175,080	173,98

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Summary of data collected in MCs

	ED 2007	DSF 2020	PDS 2040
	Area (ha)	Area(ha)	Area(ha)
Cambodia			
Rainfed Agri.	82,059	404,500	ND
Forest (production forest only)	462,769	ND	ND
Surface Mining	47,977	47,977	47,977
Laos			
Rainfed Agri	861,920	1,322,724	ND
Forest	9,552,425	9,552,425	ND
Surface Mining	323,114	70,629	3,279,749
Thailand			
Rainfed Agri.	1,298,958	1,282,426	ND
Forest	1,914,286	1,951,297	ND
Surface Mining	1,352	864	ND
Viet Nam			
Rainfed Agri.	322,556	358,783	ND
Forest	2,868,708	2,733,780	2,760,271
Surface Mining	132,648	175,080	173,982

ND=No Data

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3. Data Gaps

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Data Gaps

- Gap Analysis
- Gap Filling Strategy
- Example of Dataset

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GAP ANALYSIS - 1



- ▶ Based on the overall progress on mid December, the data collected are not meeting the request.
- ▶ The datasets are not homogenous:
 - Spatially between countries and
 - Temporally by scenario
- ▶ The datasets are not detail enough
- ▶ The dataset collected to date is not sufficient to formulate the scenarios for the Agriculture and Land Use Change thematic area at the basin level

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GAP ANALYSIS - 2



- ▶ A Gap analysis was conducted for the development scenario datasets
- ▶ The analysis focused only on three areas; rainfed agriculture, forestry and surface mining
- ▶ The analysis is difficult, some data may not be defined in the same way

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Towards a Gap filling strategy



- Need to have homogeneous dataset between countries covering the whole LMB
- Need to prepare dataset for three scenarios (2007, 2020 and 2040)
- Forest cover in Land cover and agriculture land 2010: will be used as reference
- Map of land use plans and forest plans (from MCs) will be used.

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Forest cover area in 2010 (ha) for Gap Filling Strategy



	Cambodia	Lao PDR	Thailand	Vietnam
Broadleaved Deciduous Forest	4,258,386	12,067,262	3,166,161	209,460
Broadleaved Evergreen Forest	2,976,836	1,392,747	971,084	1,072,634
Forest Plantation	1331	5610	154,298	648
Bamboo Forest	81,529	284,408	11,721	234,679
Coniferous Forest	,2450	116,994	0	289,138
Mangrove Forest	529	0	0	121,592
Total	7,321,061	13,867,021	4,303,264	1,928,151

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Agriculture area in 2010 (ha)



	Cambodia	Lao PDR	Thailand	Vietnam
Annual Crop	1498993	284159	3277895	496728
Paddy Rice	3721308	1161090	8503892	1599872
Shifting cultivation	307331	740545	65927	44204
Industrial Plantation	291742	190461	1353579	893571
Total	5819374	2376255	13201293	3034375

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Summarised dataset



Area (ha)	ED 2007	DSF 2020	PDS 2040
Rainfed Agri.	2565493	3368433	
<i>Cambodia</i>	82059	404500	ND
<i>Lao PDR</i>	861920	1322724	ND
<i>Thailand</i>	1298958	1282426	ND
<i>Vietnam</i>	322556	358783	ND
Forest	14798188		
<i>Cambodia</i>	462769	ND	ND
<i>Lao PDR</i>	9552425	9552425	ND
<i>Thailand</i>	1914286	1951297	ND
<i>Vietnam</i>	2868708	2733780	2760271
Surface Mining	505093	294552	
<i>Cambodia</i>	47978	47978	47978
<i>Lao PDR</i>	323115	70630	3279749
<i>Thailand</i>	1352	864	ND
<i>Vietnam</i>	132648	175081	173983

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4. SUMMARY

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In Summary

- **Data collected:** not homogenous and not sufficient. Additional data collection is uncertain to improve significantly data set
- **Data analysis:** Gap filling strategy is implemented
- The methodology of the gap filling strategy should be **proposed and validated**
- Revised Data Set (with Gaps Filled): Proposed for Consideration

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The RTWG is requested to:



- Take note on the progress made and provide feedback
- Agree on the data filling strategy and the resulting revised dataset
- Provide feedback and further guidance

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Thank You



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