

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



Council Study

Summary Content of the Interim report Agriculture and Land Use Change

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1. BACKGROUND

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Overview of the sector

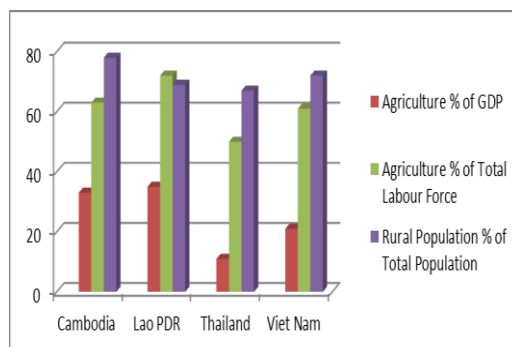


- Agriculture provides livelihoods for more than 70% of the Mekong Basin/s population, with 24% of the regional considered to be below the poverty line.

Agricultural Contribution to Economic Activity in four countries of the LMB

Agriculture as a % of GDP

Year	World	Cambodia	Lao PDR	Thailand	Vietnam	Direction
2002	3.5	33	44	9	22	
2005	3.0	34	35	10	21	
2010	2.6	36	32	12	20	



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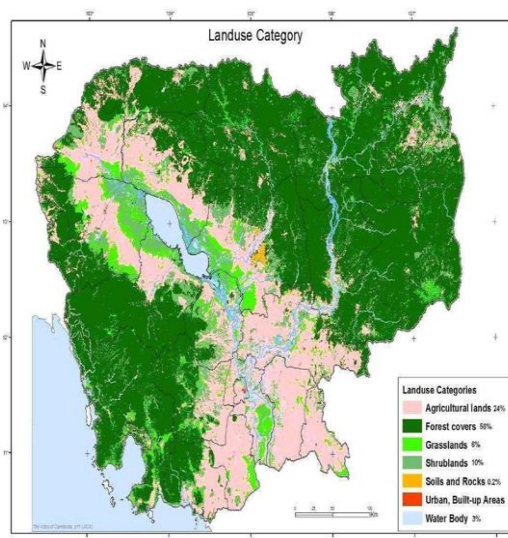
2. CURRENT STATUS OF THE AGRICULTURE AND LAND USE CHANGE THEMATIC AREA

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Land Use and Land Cover in Cambodia



- Total cultivated area of Cambodia is about 4.37million ha (24% of the land), while forests cover about 56%.
- Rice is the dominant crop, which covers approximately 3.57millionha, (80% of agricultural land) including the area of receding, floating rice and paddy rice interspersed with villages.



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Major changes in agricultural land use in Lao PDR between 1998/99 and 2010/11

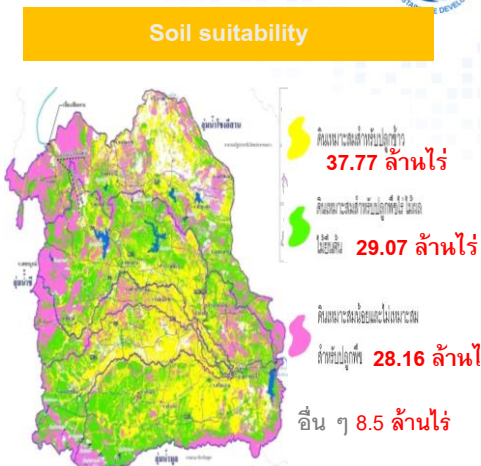


Land use category	Agricultural land area ('000 ha)		
	1998/99	2010/11	(%) annual growth*
I. Agricultural land	976 (93.1)	1 623 (86.8)	4.3
(a) Land under temporary crops	765 (73.0)	1 230 (65.8)	4.0
(b) Land temporarily fallow	112 (10.7)	198 (10.6)	4.9
(c) Land under permanent crops	81 (7.7)	149 (7.9)	5.2
(d) Meadows and pastures	18 (1.7)	26 (1.4)	3.1
II. Non-agricultural land	72 (6.9)	247 (13.2)	10.8
(a) Forest and other wooded land	54 (5.2)	122 (6.5)	7.0
(b) Other land	18 (1.7)	125 (6.7)	17.5
Grand Total	1 048 (100.0)	1 870 (100.0)	4.9
% share of total land area	4.43	7.90	

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Overview of Thailand

- The total area of Thailand is 51.31 million ha consist of
 - Agricultural area is 20.95 million ha.
 - Forest area is 16.78 million ha.
 - Urban and rural area is 13.35 million ha.
 - Mangrove forest is 0.23 million ha.



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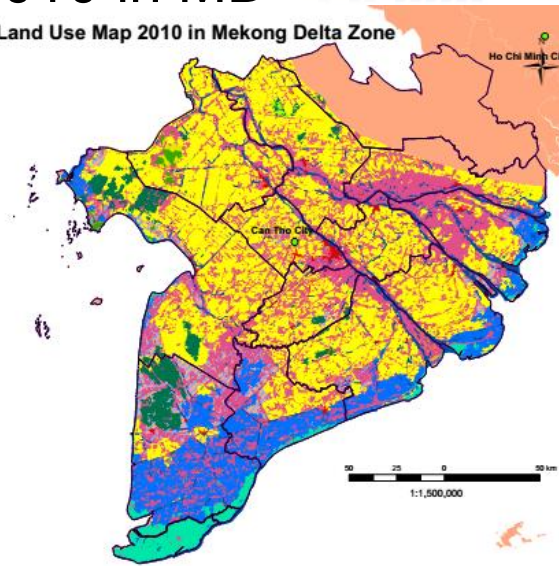
LU Map 2010 in MD



Legend

- Paddy Rice Rotated with Annual Crop
- Annual Crop
- Paddy Rice
- Shifting Cultivation
- Orchard
- Flooded Forest
- Grassland
- Schrubland
- Urban Area
- Bare soil
- Industrial Plantation
- Broadleaved deciduous Forest
- Broadleaved Evergreen Forest
- Forest Plantation
- Bamboo Forest
- Coniferous Forest
- Mangrove
- Marsh/Swamp Area
- Aquaculture
- Aquaculture (Shrimp) Rotated with Paddy Rice
- Water body
- Provinces belongs MRB
- Vietnam

Land Use Map 2010 in Mekong Delta Zone



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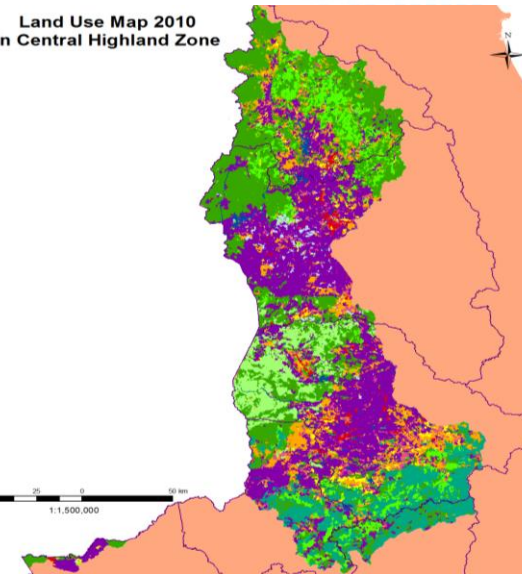
LU Map 2010 in CHZ



Legend

- Paddy Rice Rotated with Annual Crop
- Annual Crop
- Paddy Rice
- Shifting Cultivation
- Orchard
- Flooded Forest
- Grassland
- Schrubland
- Urban Area
- Bare soil
- Industrial Plantation
- Broadleaved deciduous Forest
- Broadleaved Evergreen Forest
- Forest Plantation
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- Coniferous Forest
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Land Use Map 2010 in Central Highland Zone



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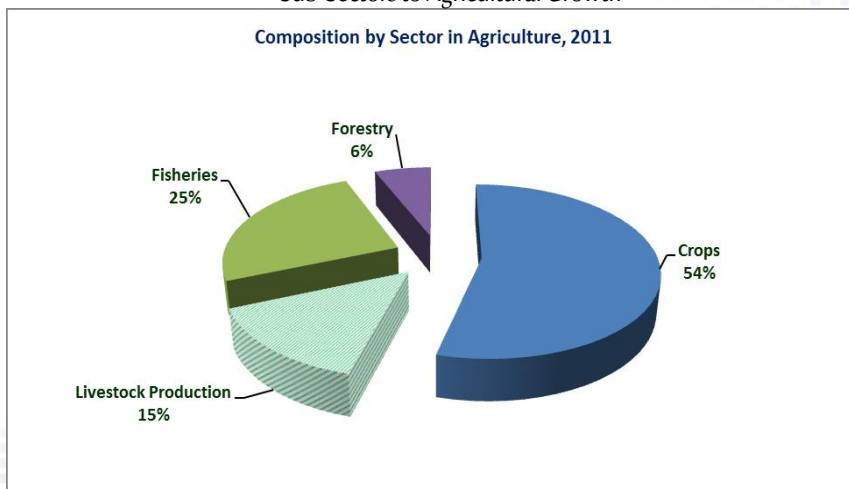


3. DEVELOPMENT TRENDS

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Development trends in Cambodia

Sub-Sectors to Agricultural Growth



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Priority programmes of Agricultural Development

- 1. Enhancing Agricultural Productivity and Diversification;
- 2. Increase Market Access for Agricultural Products;
- 3. Strengthening Institutional, Legislative Framework and Human Resource Development (HRD);
- 4. Sustainable Fisheries Resources Management and
- 5. Sustainable Forestry Resource Management

Development trends in Laos



- The objective of the National Irrigation Development strategy is to **create a more irrigated land..**
- The implementation of the plans could see the new development of 101,700 Ha in the period 2015-2020 and 329,425 Ha in the period 2020-2040 **reaching a total irrigated area of 446,125 Ha for the large projects.**
- The target is to use the potential water resource by developing gravity irrigation systems in order to reduce the cost of irrigation service and production that will enhance the price competitiveness of agriculture products

Development trends in Thailand



- **The Eleventh National Economic and Social Development Plan (2012-2016), and The Agricultural Development Plan.**
- The plan can be substantially performed by applying structural measures and non-structural measures.
- The structural measures mainly emphasize the use of water inside the basins especially in the areas suffering from both flood and drought. The water diversion between the basins will then be considered secondly.
- The non-structural measures are the applications of technologies, coordination with other sectors and participations in managements of storages and irrigation projects in the basins and among the basins

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Strategy to Action Agricultural planning

Land use planning for Northeast Thailand, Mekong sub basin



Strategy 2: The Agricultural Development Goal

Increase agricultural production



Economic crops

- For Thailand 32 crops
- For northeast about 6 crops (**cassava**, para-rubber, sugarcane, paddy, maize, soybean)

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Development trends in Viet Nam



- The overall objective of the Agriculture sector is to develop a comprehensive and sustainable system and to optimally utilize the potential.
- **Generate a greater production characterized by a high productivity, quality, efficiency and competitiveness.**
- The part of Agriculture within the *Agriculture, forest and fisheries sector* will decrease by 2020 in favor of the Aquaculture development.

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Development trends in Viet Nam

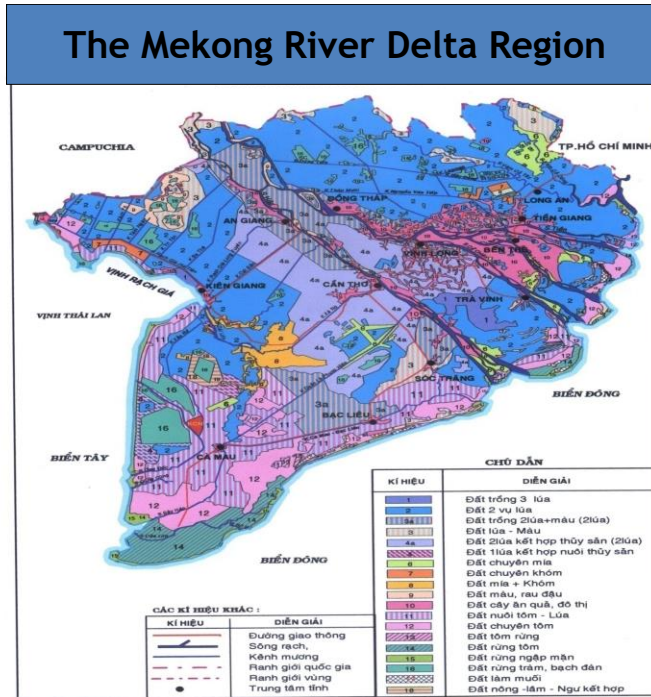
Mekong Delta Area



- **Area subject to climate change effects and urbanization growth**
- **Farmers will switch to aquaculture (shrimp) to overcome the climate change effects and seek for higher income**
- Several major infrastructural projects are scheduled to meet the objectives of the water resources planning. It consists of canal works, dikes improvement, drainage water management, regulation structures and pumping stations development.

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Map
Of
proposed
land
use
to
the
year
2020



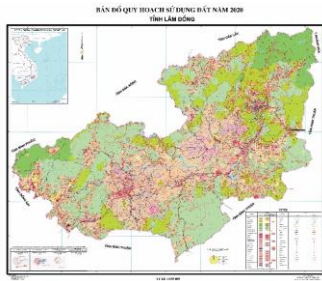
Development trends in Viet Nam

Central Highlands Area

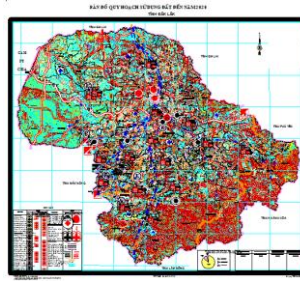


- The main objective for the development of the area is to minimize the transfer of agricultural land into unsustainable land cultivation systems.
- It is foreseen to prioritize the **expansion of rubber and coffee plantations and the development of land with annual crops in upland fields with irrigation.**
- The development of irrigation is targeted to improve rice cultivation areas and address the transfer of water service. Irrigation development will be prioritized to the precarious areas and turn them to cropland and other crops with a high economic efficiency.

LU Planning Map in CHZ (at province level)

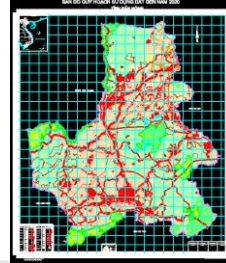
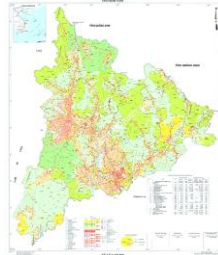


Lam Dong and Gia Lai



Kon Tum

Dak Lak and Dak Nong



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4. DIRECT IMPACTS



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Analysis of Impact Assessment of agriculture and land use change



Activities were developed to assess the direct impacts and provide information required to assess the impacts of rainfed agriculture and land use change.

The activities undertaken were:

- Collection and review of relevant literature and studies about the impacts of rainfed agriculture and forestry at the national level.
- Two type of projects were selected (rainfed agriculture and forestry) for in-depth review and extracting of some selected indicators describing the social, economical and environmental impacts.

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Analysis of the Impact Assessment of Agriculture and Land Use Change



- Very few achievements were realised so far
- The activities were concentrated on the data collection and scenario formulation
- The existing dataset do not allow to conduct a significant direct impact analysis
- The activity is ongoing

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Coordination with the modelling teams



Discussions were held with the modeling teams on the following topics:

- Models capabilities and models used according to the target zones
- Data exchange framework for the water quality, sediment transport, nutrient transport and water flow assessment
- General discussions on the data needed for the socio economic assessment

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5. ISSUES

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Issues



- The activities conducted in Phase 1 did not allow to obtain a clear and consistent information on the current and future prospects for the development of the Thematic Area
- Generic and out to date information is only available currently
- Based on the available data, it is difficult to make direct impacts assessed

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The RTWG is requested to:



- Take note
- Provide guidance

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Thank You



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