

# TEEB Implementation in Thailand: Supporting biodiversity and climate friendly land management in agricultural landscapes

Inception workshop scoping report

21 December 2017

UN Conference Center, Bangkok, Thailand



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## 1 Executive Summary

Thailand has expressed interest in implementing the UN Environment International Climate Initiative (IKI) Project “Supporting biodiversity and climate friendly land management in agricultural landscapes. As part of launching the project and defining the scope of work, a TEEB inception workshop was held in Bangkok, Thailand on 21 December 2017, with the objective of identifying how the TEEB for Agriculture and Food approach could inform policy interventions in specific agricultural landscapes in Thailand.

During the one-day inception workshop, stakeholders proposed land conversion from forest/mangrove to agriculture and unsustainable farming practices in maize, rice and vegetable production as the key issues to address. Several change scenarios were proposed centred on the promotion of good agriculture practices and removal of perverse incentives that promote unsustainable land use. The Northern Region was proposed as spatial priority given its importance as a critical watershed area. Key impacts from unsustainable land use include nutrient and pesticide loads, sedimentation, flooding, soil fertility and air pollution.

Two proposed options for implementation on “maize and organic agriculture” have been developed for consideration by the steering committee

## 2 Overview of the Project

Thailand has expressed interest in implementing the UN Environment International Climate Initiative (IKI) Project “Supporting biodiversity and climate friendly land management in agricultural landscapes”. TEEB can assist partner countries in identifying ways to mainstream the values of nature in decision-making, through highlighting several trade-offs made in land-use decisions, which are usually not captured through conventional assessments such as Environmental and Social Impact Assessments. These include hidden and often invisible contributions of nature to agricultural production, both positive and negative impacts of agriculture on biodiversity, human health, and other links of agricultural systems with human health, culture, and other ecosystems at the landscape level.

The project builds on the momentum of the international TEEB initiative, TEEB country studies, TEEB for Agriculture and Food and on national interest. The project would contribute in terms of informing cross-sectoral policies for natural resources management, especially as they relate to agriculture. The project is funded by the German Climate Fund.

The project could be implemented in three phases: (1) project preparation and scoping; (2) undertaking the study; and, (3) review and dissemination of results.

The first phase entails various activities to lay the foundations for being able to effectively undertake the study. These include: (a) establishing the project governance structure to ensure overall management of the project in terms of timelines, deliverables, and involvement of relevant stakeholders; (b) organizing a scoping workshop to identify questions that the TEEB country study would answer; (c) first national workshop to present the scope of the TEEB study and to inform the various stakeholders; and, (d) first international workshop where all five countries selected for the project (Thailand, Colombia, Kenya and Tanzania) may share their scoping results.

The scoping workshop is an important component of the project, as it sets the stage for TEEB work in the country. The objectives of the scoping workshop were:

- To officially launch the project in Thailand;
- To identify, in consultation with national and local authorities and other relevant stakeholders, how this project would contribute to policy making, building on existing initiatives and programmes currently taking place in Thailand;

- To identify thematic or spatial priorities that may offer useful starting points for the project. This may include, for example, integrated water resource management in priority watersheds;
- To discuss and agree on the project management arrangements and the work programme for the project, including steering committees, project management units, and technical partners.

### 3 Participants and Agenda

The workshop was attended by thirty-eight participants from various departments and non-profit organizations. For a full list of participants, see Annex 1.

### 4 Workshop programme

The workshop was held for a day. Please refer to Annex 2 for workshop agenda.

### 5 Discussions

#### 5.1 Main objectives/outcomes of the day

The main objectives of the day were to introduce the project to the audience; identify policy issues that may be informed by a wider assessment of ecosystem services; engage stakeholders; identify data sources and other key stakeholders to be involved in the project.

#### 5.2 Opening Remarks

The day began with opening remarks by Dr Benchamaporn Wattanatongchai on behalf of the Deputy Secretary-General, Office of Natural Resources and Environmental Policy (ONEP) and Ms. Isabelle Louis, Deputy Regional Director, UN Environment Asia and the Pacific Office. This was followed by a note of thanks by Makiko Yashiro from the UN Environment, Asia & Pacific Office. Dr Salman Hussain from UN Environment and TEEB coordinator opened the floor for discussion and introduction of participants.

#### 5.3 Summary of the Presentations

##### 5.3.1 UN Environment-IKI Project implementation in Thailand

Dr Salman Hussain, introduced the UN-IKI Project implementation in Thailand drawing from on-going and previous TEEB for Agriculture and Food studies. Below are some highlights of the presentation.

- **The mission statement:** The TEEB AgriFood study is designed to (1) provide a comprehensive economic evaluation of the eco-agri-food systems' complex, and (2) demonstrate that the economic environment in which farmers operate is distorted by significant externalities, both negative and positive, and a lack of awareness of dependency on natural, human and social capital
- The focus on the agri-food sector arises owing to the numerous perverse outcomes of the current pattern of crop and livestock production, processing, transportation and consumption. The **key challenge is how** to deliver sufficient, healthy, nutritious food that does not damage nature.

This was followed by a presentation by Dr Lena Mkwara from the UN Environment highlighting **the significance of agriculture to the Thai economy and potential trade-offs and synergies with ecosystem services**. Below are some highlights of the presentation.

- The agriculture sector accounts for about **8.3% of GDP** and almost **32.3% of the workforce**.
- Thailand is the leading **global supplier of agricultural products such as cassava, sugarcane and palm oil**. These crops, along with their waste by-products, are key for biofuel production, which is being promoted under the Alternative Energy Development Plan (AEDP). It is also the **top world**

**producer of natural rubber** and many agro-based products such as rice, cassava starch and canned pineapple

- Thailand's agriculture sector has a **large environmental footprint**
  - It is considered the second largest contributor to greenhouse gas (GHG) emissions. In 2011, Agriculture accounted for 53 MtCO<sub>2</sub>e (17.3%), of which rice cultivation contributed over half of the GHG at 51.38%
  - It has a significant impact on water, land and biodiversity. The agricultural sector accounts for around 90.4 % of annual freshwater withdrawals and around 46 % of total land area and of which 68 % is used for rice cultivation and other field crops.
- **Climate change is regarded as the main threat to agricultural development.** Over the past years, it has led to water shortages, droughts and floods in many parts of the country
- Land use change from natural ecosystems (including forests) to agriculture is negatively impacting on ecosystems and the services they provide
- The long-term sustainability of the Thai agriculture sector depends on how well these trade-offs are managed.

### 5.3.2 Policy perspectives on environment and agriculture

Dr Benchamaporn Wattanatongchai from ONEP presented on the overall policy perspective on biodiversity in Thailand. The highlights of the presentation are presented below.

The conservation, restoration and sustainable use of biodiversity is being promoted through national policy and planning documents, including:

- **The Master Plan for Integrated Biodiversity Management (MPBD) (2015-2021)**
  - The principal biological diversity plan of Thailand, developed in compliance with Article 6 of the Convention on Biological Diversity
  - **Vision:** By 2021, people live in harmony with nature through collaborative promotion and support by the government and other sectors for conservation, restoration and sustainable use of biodiversity
  - It has 4 Strategies, 11 Measures with 41 National Biodiversity Targets
- **The National Biodiversity Management Action Plans: BDAP 2017-2021**
  - It has 25 Targets, 4 Strategies, 10 Action Plans
  - It was approved by the Cabinet on 28 March 2017
  - **Key objectives:** building awareness and education, integration and promotion of participation in biodiversity management, biodiversity conservation, alien species management, genetic resources protection and R&D in bio-economy, and knowledge and database management
  - **Tools to achieve Biodiversity Targets** include mainstreaming, public-private partnership, interaction, financial mobilization and cooperation.

This was followed by a presentation on **policy perspective on agriculture** by Dr Lena Mkwara from UN Environment. The highlights of the presentation are presented below.

- **Key challenge for the Thai agriculture sector:** How to produce more sustainably while meet multiple objectives— e.g. food security, renewable energy and environmental imperatives?
- To promote long-term sustainability of the agriculture sector, the Thai Government has embraced green growth and followed His Majesty the late King Bhumibol Adulyadej's **Sufficiency Economy Philosophy**, which incorporates a green growth development
- Green growth is well reflected in Thailand's policy and planning documents, including the Twelfth National Economic and Social Development Plan (12th NESDP, 2017-2021); Agricultural

Development Plan 2017-2021; Agricultural Climate Change Strategic Plan 2017-2021; Climate Change Master Plan 2015-2050; and through international commitments including the Sustainable Development Goals, Nationally Appropriate Mitigation Action and the Nationally Determined Contribution (NDC)

- The Ministry of Agriculture and Cooperatives has identified key agricultural policies which target the management of Agricultural Economic Zone including rice, rubber, energy crops (cassava, sugarcane, oil palm), maize, fishery and livestock, and Agricultural Products' Quality Development as key intervention areas. The overall objective is to promote a growth that is competitive and inclusive and green.

**In conclusion, Dr Salman Hussain highlighted the need for a strong linkage between the agriculture and environmental policy interface.**

### **5.3.3 TEEB Thailand and other related initiatives**

Dr Orapan Srisawalak, from Sukhothai Thammathirat Open University and Ms Piyathip Eawpanich, from National Parks Association Thailand (NPAT) presented on TEEB Thailand and other related initiatives. The highlights of the presentation are presented below.

#### **BIOFIN and Financial Incentives for Sustainable Land Use Management**

Dr Orapan Srisawalak presented on Biodiversity Financing Initiative (BIOFIN) and Sustainable Land Use Management from a global perspective with a specific focus on national initiatives. The highlights are presented below.

##### **Biodiversity Financing Initiative (BIOFIN)**

- The importance of Biodiversity Financing Initiative (BIOFIN) and its global initiatives were highlighted
- It was highlighted that currently, there is a low level of expenditure on biodiversity in Thailand **(0.1% of our GDP and 0.5% of budget)**

##### **Land Degradation Neutrality (LDN) and Sustainable Land Management (SLM)**

**ELD-EEPSEA project** (Economics of Land Degradation (ELD)-Environment Partnership for Southeast Asia (EEPSEA)) is being implemented under SLM

- **In line with SDG 15.3:** By 2030, combat desertification, and restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation neutral world
- **Aim of the ELD – EEPSEA project:** Evaluate past and on-going SLM projects in Southeast Asia to investigate how SLM practices can be widely adopted to support the LDN goal of the region's national governments in support of their commitment to the United Nations Convention to Combat Desertification (UNCCD)
- **Collaborating Countries:** Thailand, Vietnam, Myanmar and Philippines
- **On-going SLM initiatives in Thailand**
  - Surveys were conducted at 3 pilot sites (Chiang Rai, Khon Kaen and Suphanburi) to assess farmers' SLM practices, current knowledge, enabling factors and constraints
  - **Dominant SLMs at 3 study sites** were mixed cropping and composting, and to a lesser extent, green manure, mulching, terracing and hillside ditch, contour hedgerow and integrated organic farming
  - **Facilitating factors for adoption of SLM:** supported budget from every fiscal year (63.64%), training, demonstration (45.24%), technical staff with experiences and knowledge (30.95%),

needs and determination of farmers (33.33%) and leadership of farmers with good coordination (37.5%)

- **Constraint factors:** inconsistent and discontinued support of budget (87.10%) inadequate budget allocation (26.19%), loaded works on advanced farmers, leaders (23.81%), lack of knowledge, lack of interest (12.20%)
- **Challenges:** establishment of integrated budget system (start-up costs and sustainability of SLM), changing mindset, perspectives of farmers with inappropriate practices, lack of technical staff in soil and water conservation measures

### Lessons Learnt from TEEB application in Thailand from the ECO-BEST Project

#### ECO-BEST: “Enhancing Economics of Biodiversity and Ecosystem Services in Thailand/Southeast Asia”

Ms Piyathip Eawpanich, from National Parks Association Thailand (NPAT) presented on lessons learnt from the application of TEEB in Thailand by ECO-BEST Project.

- It was a four-year project (2011-2015) aimed at reducing terrestrial biodiversity loss in Thailand (South-East Asia) through economic and financial instruments for the benefit of local communities
- The project was funded by the European Union and the Thai and German governments.
- It was implemented at three pilot sites: Chiang Mai Province (Pang-Ma-O Village), Prachin Buri Province (Bu Phram Subdistrict) and Nakhon Si Thammarat Province (Klong Thadee River basin)

#### Objectives

- Develop policy framework promoting economic instrument for protected areas and buffer zones management
- Application of TEEB for development of economic instrument at pilot sites
- Building people and institutional capacity on TEEB

#### Key outcomes

- National/regional level
  - Training curriculum /series developed
  - Guideline on development for economic tools for nature resource and biodiversity
  - Guideline for PES Development
  - Corporative Ecosystem Review and Valuation
- At the 2 Pilot sites: Institution for administration of economic instruments for ecosystems and biodiversity conservation and management established and officially registered

#### 5.3.4 Presentation on ENRTP TEEB country studies

Ms Kavita Sharma from the UN Environment gave a presentation on ENRTP TEEB country studies to introduce the TEEB Country-level implementation process. This presentation was a prelude to the afternoon session on working group discussions aimed at identifying relevant ecosystem types, location, and policy priorities.

## 5.4 Discussions and reporting back from working groups

There was a round-table discussion consisting of four working groups. Participants discussed and identified relevant ecosystem types or agriculture sub-sectors, location, policies and change scenarios that could be considered under the study. Key issues and questions addressed are further highlighted below.

- Ecosystem types/agricultural sub-sector
- Location
- Policies – what can be influenced, and what policies is the agricultural landscape affected by?
- What is the change scenario?

### 5.4.1 Summary of findings from working groups

#### Working Group 1

Participants from Group 1 highlighted three options that could be considered with the conversion of mangrove to palm (option 2) as the most preferred. More details are provided below.

#### Proposed ecosystem types/agricultural sub-sector

##### Option 1: Examine Rice in several provinces in North Eastern Thailand in Andaman province.

- Main problem identified is land encroachment for palm and rubber (Phangnga and Krabi respectively) Off-season water availability for irrigation was identified as the main problem – mostly in ubon, udon, KKC, Kalasin Center and Nakhonnayok Pathunthani

##### Option 2: Mangroves – IDENTIFIED THIS AS A PRIORITY

- It was noted that there is no current specific policy for conversion and most conversion is to palm since price for rubber is low

##### Option 3: Rice to sugarcane conversion in Kanchanaburi

#### Policies to resolve/scenarios

- Create large scale farming to create economics of scale for rice
- Zoning for rice/sugarcane
- Land and building tax (to encourage bringing in land not used for production and land redistribution)
- Reintroducing cranes in rice field
- Reclaim mangrove and forest from illegal encroachment
- Reduction in perverse subsidies (of chemical fertilizers, and for marine agriculture in form of subsidizing fishing gear and fuel costs)
- Encourage good subsidies (BoA and cooperatives) – currently, there are no positive subsidies.
  - It was noted that the average debt per household is high and farmers are asking the government to forgo the debt. It was proposed that instead of forgiving debt, the government can encourage good practices in the agriculture sector
- Risk-sharing mechanisms – It was highlighted that the introduction of new production practices could incentivize farmers to adopt good farming practices, especially in the first two years.
- Increase efficiency in extension service

**Conclusion/priority** – Participants highlighted that if ecosystems are minimum criteria, the project should focus on conversion of mangroves to palm. The focus on options to resolve should be on providing positive subsidies.



## Working Group 2

### Proposed ecosystem types/agricultural sub-sector

**Preferred Option: Cabbage/overuse of chemicals in Lower Northern Region** e.g. Phetchabun, and forest encroachment for cabbage plantation

- It was noted that there was conversion of forests to agriculture for cabbage which uses lots of chemicals
- Participants stated that they wanted to encourage GAP (good agricultural practices)
- Cabbage was stated to be one example of how the land is not used sustainably because the land use has been converted from forest
- There are other crops such as **pumpkins, maize**, etc., grown in the same kind of land – with **no land rights, usually grown in water-heads, easy to grow and sell, cannot use machinery, slight slopes, and short crop** rotations (3-6 months).

Participants highlighted that in terms of scenarios, “there is **a) land conversion (from forest to agriculture) or b) converting from non-organic to organic.**”

**Views from other working Groups:** “We cannot say it’s illegal, the communities have been there forever, so they are using their own land. They increase production and go further into forests, due to poverty and price fluctuations. The Royal Forest Department has made a land use map and they draw (refresh/develop) it annually (in terms of what they can use or not use – protected area and compromised area). The way it’s made is in consultation with communities living there. They have the map already. Ecosystem service valuation on land use change can help enforce the law better”.

### Policies to resolve/scenarios

- GAP (good agricultural practices) standard still allows for chemicals to be used but in a safer environment. Therefore, GAP prevents farmers from going organic. GAP certification is given by the ministry of agriculture. The prices for GAP and Non-GAP commodities are priced the same
- Monitoring farmer health: the public health ministries have been active in monitoring chemical substances in the bloodstream and that has been positive on changing chemical practices to better practices
- Agriculture land reform
- Reclaim forests
- Irrigation expansion
- Prices need to be balanced – there should be better incentives to go organic
- Government subsidy reform
  - Lower leasing rate for production of cabbage in degraded forest land
  - Support organic fertilizer
- Promote good agriculture practices/organic agriculture
- Consumer awareness
- Access for post-harvest technology

## Working Group 3

### Proposed ecosystem types/agricultural sub-sector

**Preferred Option:** Rubber trees in Northern part (Chiang rai, Petchaburi, Nan, Pa yao, Pisanulok)

- These are the five provinces with highest plantations and produce about 1.2 million rais
- Usually, rubber is planted in the south, but they are encouraged for the norther part now through several policies
- These northern provinces are important watersheds
- In highlands, these trees are planted in monoculture and several chemicals are used while planting, harvest etc.
- Impacts include water resource contamination, land degradation, deforestation and biodiversity loss

### Policies to resolve/scenarios

- Promote organic farming policy
- Sufficiency economy policy
- Integrated farming/ Agroforestry
- Promote “community enterprise” and participatory conservation
- Agrochemical ban policy
- Organic commodity market planning and promotion
- Encourage agroforestry and organic farming of products in the rubber plantations

## Working Group 4

### Proposed ecosystem types/agricultural sub-sector

**Option 1: Maize in Nan, Chiangmai, Tak (all three provinces in the North)**

- These provinces were chosen because they are in the water-heads, and where the water for downstream consumption comes from
- It was noted that maize is mostly grown in the highlands, predominant in north, north eastern and south
- Participants highlighted that production of maize is problematic because about half of maize farms are illegal
- It is mainly produced for animal feed (97% for animal feed) and therefore has a long supply chain which is generally not efficient
- Lots of nutrient and pesticide loading, sedimentation, flooding, air pollution (because agricultural waste is burned which also causes transboundary pollution); people in cities face air pollution
- All these watersheds come down to Chayopraya river
- There is a lot of research that has been done on this topic
- One rai of forests is \$40 in maize production
- Some valuation studies are available e.g. UNDP worked on this issue three years ago
- There has been some work done on the supply chain/value chain of maize

**Option 2: Rice in Chayopraya river basin**

Rice ecosystem – Participants highlighted that this could be a priority because of:

- significance rice farming
- on-going work on climate change adaptation
- use less chemicals

- it was noted that there is another IKI project on rice

**Policies of interest** – introduction of green agriculture policies that are not harmful to the environment

**Option 3: Aquaculture in Suphanburi**

- It was noted that aquaculture is being promoted in agriculture land
- This is not suitable because they have estuarine animal in rice fields and this poses risks to biodiversity (invasive species)
- It is more lucrative to conduct aquaculture.

**Policies to resolve/scenarios**

- Maize: Maize plantation is maintained and encouraged through minimum price guarantee. This is a wrong signal that promote maize production and encourages encroachment
  - It was noted that there is a map of the no encroachment zone, however, this cannot enforce policy
  - Another option would be to create insurance schemes, in which premiums are paid by farmers to protect them from price fluctuation risks through this insurance
- Economic instrument (eliminate non-tariff barriers because the animal association cannot import maize, and they have to promote domestic farmers: this elimination may reduce price, reducing production)
- Ban chemical use (in watershed areas) and provide crop insurance as a guarantee against loss of production
- Deforestation can increase flooding and therefore can make it worse for maize production too
- **Maize brings together issues of land use, pollution, nutrition, efficiency of natural resource use, and water.**

**Concluding remarks from Working Groups**

Overall, stakeholders proposed land conversion from forest/mangrove to agriculture (mostly illegal through forest encroachment) and unsustainable farming practices in maize, rice and vegetable production as the key issues to address. Several change scenarios were proposed centred on the promotion of good agriculture practices and removal of perverse incentives that promote unsustainable land use. The Northern Region was proposed as spatial priority given its importance as a critical watershed area. Key impacts from unsustainable land use include nutrient and pesticide loads, sedimentation, flooding, soil fertility and air pollution.

## 5.5 Next steps

Two proposed options for implementation on “maize and organic agriculture” have been developed for consideration by the steering committee.

## 6 ANNEX 1 - List of Participants

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## 7 ANNEX 2 – Workshop Agenda

### Background and objectives

1. The United Nations Environment Programme (UN Environment), with the support of the International Climate Initiative<sup>1</sup> (IKI) have launched a three-year project for supporting biodiversity and climate friendly land management in agricultural landscapes in four countries. These include Colombia, Kenya, Tanzania, and Thailand
2. Building on the momentum of the international TEEB initiative<sup>2</sup>, TEEB country studies<sup>3</sup>, TEEB for Agriculture and Food<sup>4</sup>, and on national interest, the project would contribute in terms of informing cross-sectoral policies for natural resources management, especially as they relate to agriculture.
3. The project is funded by the German Climate Fund. Its main objective in the partner countries is to mainstream the values of nature in decision-making, through highlighting the several trade-offs made in land-use decisions, which are usually not captured through conventional assessments such as Environmental and Social Impact Assessments. These include hidden and often invisible contributions of nature to agricultural production, both positive and negative impacts of agriculture on biodiversity, human health, and other links of agricultural systems with human health, culture, and other ecosystems at the landscape level.
4. An inception mission will take place from 20-21 December 2017 in Bangkok, Thailand, during which the project team will launch the project in Thailand and organize stakeholder consultation meetings to reach out to national and local authorities and other relevant stakeholders from civil society and private sector. The inception mission will be co-hosted by ONEP and UN Environment.
5. The objectives of the inception mission are:
  - a. To officially launch the project in Thailand;
  - b. To identify, in consultation with national and local authorities and other relevant stakeholders, how this project would contribute to policy making, building on existing initiatives and programmes currently taking place in Thailand;
  - c. To identify thematic or spatial priorities that may offer useful starting points for the project. This may include, for example, integrated water resource management in priority watersheds;
  - d. To discuss and agree on the project management arrangements and the work programme for the project, including steering committees, project management units, and technical partners

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<sup>1</sup> <https://www.international-climate-initiative.com/en/>

<sup>2</sup> <http://www.teebweb.org/>

<sup>3</sup> <http://www.teebweb.org/areas-of-work/country-studies-home/>

<sup>4</sup> <http://www.teebweb.org/agriculture-and-food/>



## Agenda

**21 December 2017 (Thursday)**

**Venue:** UN Conference Center

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Morning session, 9.00-12.30 **Introducing the project**

Moderated by Makiko Yashiro

*Main objectives/ outcomes of the day – Introduce the project to the audience; identify policy issues that may be informed by a wider assessment of ecosystem services; engage stakeholders; identify data sources and other key stakeholders to be involved in the project*

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Time	Programme
8:30 – 9:00	Registration
9.00 – 9.20	Opening remarks <ul style="list-style-type: none"><li>- Dr. Asdaporn Krairapanond, Deputy Secretary-General, Office of Natural Resources and Environmental Policy (ONEP)</li><li>- Ms. Isabelle Louis, Deputy Regional Director, UN Environment Asia and the Pacific Office</li></ul>
9.20 – 9.40	Introduction by all participants
9.40 – 10:30	Presentation on the project (Dr. Salman Hussain and Dr. Lena Mkwara – UN Environment) 10 minutes reserved for discussion/ Q&A
10:30 – 11:00	Dr. Benchamaporn Wattanatongchai Policy perspectives on environment (ONEP) and Dr. Lena Mkwara – UN Environment 10 minutes reserved for discussion/ Q&A
11:00 – 11:20	Group photo and coffee/ tea break
11:20 – 12:00	TEEB Thailand and other related initiatives (Dr. Orapan Srisawalak, Associate Professor, Sukhothai Thammathirat Open University and Ms. Piyathip Eawpanich, Advisor, National Parks Association Thailand (NPAT)) 10 minutes reserved for discussion/ Q&A

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12:00 – 12:30	Presentation on ENRTP TEEB country studies (Ms. Kavita Sharma - UN Environment) 10 minutes reserved for discussion/ Q&A
12:30 – 13:30	Lunch
<hr/> Afternoon session, 13:30 – 16:30 <b>Working groups and Discussion</b>	
13:30 – 15:00	Working group discussions <ul style="list-style-type: none"> <li>• <b>Ecosystem types/agricultural sub-sector</b></li> <li>• <b>Location</b></li> <li>• <b>Policies</b> – what can <i>be influenced</i>, and what policies is the agricultural landscape affected by (maybe we can test the viability/effectiveness of a policy?)</li> <li>• What is the <b>change scenario</b>? Could be:             <ul style="list-style-type: none"> <li>(i) Public investment, e.g. subsidies</li> <li>(ii) same product but grown a different way</li> <li>(iii) land restoration</li> <li>(iv) new products or combination of these, or something else</li> </ul> </li> </ul>
15.00 – 15.15	Break
15:15 – 16:30	Reporting back from working groups and plenary discussion and Closing