

TEEBAgriFood Thailand: Integrating the value of ecosystems and biodiversity in rice systems

TEEBAgriFood is an initiative of the United Nations Environment Programme (UNEP) which seeks to make visible the impacts and dependencies of the agri-food value chain on nature. These critical contributions and concerns are often not counted in economic transactions and are often overlooked in decision-making. Thailand joins nine other countries (Brazil, China, Colombia, India, Indonesia, Kenya, Mexico, Malaysia and Tanzania) in piloting the TEEB for Agriculture and Food initiative around the world.

Objectives TEEBAgriFood is aimed at informing the agriculture and food planning process in Thailand by providing comprehensive, scientific evidence to support agriculture and food system policies, with direct links to policy priorities of the Ministry of Environment and Natural Resources, and Ministry of Agriculture and Cooperatives.

Partners TEEBAgriFood Thailand is an initiative under the political lead of the Office of Natural Resources and Environmental Policy and Planning, ONEP, in the Ministry of Natural Resources and Environment. Steering Committee engages agencies within the Ministry of Agriculture and Cooperatives: including Department of Agriculture, Department of Agriculture Extension, Department of Fisheries, Department of Livestock Development, National Bureau of Agricultural Commodity and Food Standards, Rice Department, the Ministry of Finance, the Ministry of Public Health and the Office of the National Economics and Social Development Council. Khon Kaen University is the host research institution of the TEEBAgriFood Thailand Initiative, leading a team of researchers from local universities and government agencies to carry out a multidisciplinary analysis of rice agroecosystems. The project is supported with funding from the German government and the European Union.

Focus and location The analyses are focused on the [impacts of different intervention options for the promotion of organic rice](#), and on the [application of Sustainable Rice Platform \(SRP\) Standard in Thai rice landscapes](#). The TEEBAgriFood analyses are focused on the Northeastern Region and the Central Plains of Thailand.

Methods The TEEBAgriFood analysis in Thailand uses a scenario modelling approach to examine the potential future impacts of land-use changes as a result of current organic rice expansion and sustainable agriculture policies. Impacts are assessed at the landscape level in terms of changes in rice-field biodiversity, the emission of greenhouse gases, air pollution, and the health impacts of chemical pesticides. Various biophysical and ecosystem services models are used in the analysis, applying locally available and field data, to project changes in natural capital, produced, human and social capital over the medium term. Economic valuation methods are applied to quantify the true costs and benefits of different agricultural approaches in rice agroecosystems. Research is also being conducted with farmers to assess the factors that could encourage farmers to switch from conventional to sustainable agricultural approaches. In the later stages of this project, the analysis will extend to an analysis of the downstream sectors of the rice value chain to understand contribute to improved management of biodiversity and ecosystem services.

Expected outcomes: Policy makers will be equipped to recognize, measure, and capture the values of biodiversity and ecosystem services into their policy decision-making and strategies for sustainability of the rice production system. The true value of nature-positive production systems can be more fairly assessed alongside conventional agricultural production systems. Analysis of policy-linked scenarios projected over a long term timeframe can be a powerful tool to assess the future environmental and economic impacts of the actions taken in the present. A holistic economic assessment will support the development of a policy roadmap to better support the integration of environmental, health, social and production goals.

TEEBAgriFood Thailand – business track

One component of the TEEBAgriFood initiative is aimed to engage private sector groups in transformation of the agrifood sector. The agri-food sector greatly depends on functioning ecosystems that can provide services such as pollination, biological plant protection and pest control, water regulation, soil formation, erosion prevention and more. Yet our natural capital, including biodiversity and ecosystem services, is being lost and degraded at an unprecedented rate, in large part by the agri-food sector itself, causing further problems in terms of human health and wellbeing.

Objectives The TEEBAgriFood for business project seeks to support private sector actors to understand the complex ways in which they depend and impact on the health of ecosystems for their success, and provide a clear business case for investing in environmental protection and restoration. The project will identify areas where nature-based solutions can be implemented to deliver benefits for business, nature and communities and develop collaborative partnerships at regional and national levels between key players in the agri-food value chain

Partners The Capitals Coalition, in collaboration with UNEP and the partners of the TEEBAgriFood initiative, are developing a series of activities with national business network partners. This work is being carried out in Brazil, China, India, Indonesia, Mexico, Malaysia and Thailand with the support of the European Union Partnership Instrument.

Activities TEEBAgriFood draft Operational Guidelines for Business have been developed through the project and are currently open for feedback at <https://capitalscoalition.org/publication/teebagrifood-draft-operational-guidelines-for-business/> to be finalized in 2022. These guidelines are a step by step guide for businesses to apply a whole capitals assessment of their operations. This provides a practical way for businesses to understand and act upon their impact and dependency on natural, human, social, and produced capital. Businesses will have an opportunity to put the guidance into practice through project activities.

Two main activities are planned for Thailand, commencing Q4 2021

- Business Roundtables: A platform for discussing the ongoing successes in the application of smarter business metrics to help fix our food systems. It provides businesses with tools and information necessary to put nature at the heart of food systems.
- Business trainings: Training sessions will be offered for supporting businesses to apply the TEEBAgriFood Operational Guidance Manual. This is a tool for businesses to gain better understanding of their impacts and dependencies on nature throughout the agricultural supply chain. Businesses are expected to complete a natural capital assessment as part of this process.

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For more information:

<http://teebweb.org/our-work/agrifood/>

<https://capitalscoalition.org/project/teebagrifood-for-business/>