TEEBAGRIFOOD THAILAND: POLICY BRIEF

This Policy Brief provides an overview of the TEEB for Agriculture and Food project in Thailand which is funded by the European Union. It outlines the rationale for and history of the TEEB Initiative and its latest application: TEEBAgriFood. The geographic and thematic scope of technical work for TEEBAgriFood Thailand – promotion of sustainable rice in central and northeastern Thailand – is described in the context of links to key regional, national, European Union, and international policy initiatives.

1. The Economics of Ecosystems and Biodiversity (TEEB)

The Economics of Ecosystems and Biodiversity (TEEB) is a UNEP-hosted global initiative launched at the G8+5 Potsdam Meeting of Environment Ministers in 2007, focused on "making nature's values visible". Since its inception it has aimed to recognize, demonstrate, and capture the values of nature and biodiversity in decision-making. It seeks to make the case in economic terms to give nature a seat at the decision-making table. It aims to achieve this goal by following a structured approach to valuation that helps decision-makers recognize the wide range of benefits provided by ecosystems and biodiversity, demonstrate their values in economic terms and, where appropriate, capture those values in decision-making.

Between 2007 and 2012, UNEP developed a suite of reports making the case for the economic valuation of nature to different audiences (national government, sub-national decision-makers, the business community, international policymakers) economy-wide, i.e., across multiple economic sectors. The application to policy depends on country context and the demand from national and regional policymakers and could cover a range of areas such as land-use planning, protected area management, ecosystem restoration, tax and subsidy reform, infrastructure investments, consumer product certification schemes, natural resource management, climate change mitigation and adaptation. The essence is to provide public and private sector decision-making with a means to fully account for the impacts on nature when evaluating their choices.

UNEP has had considerable success to date in mainstreaming economic valuation to support pro-nature, pro-livelihood outcomes. To highlight one of many successful cases, the application of TEEB in land management and regulation supported an initiative to protect the critical biodiversity systems in Manila with the outcome of Philippines President's Moratorium on Reclamation of Land in Manila Bay in 2019 as outlined in the TEEB Philippines video. The TEEB Approach to economic valuation has been adopted by a host of other agencies, please visit here for more 'TEEB-inspired' country studies.

2. TEEB for Agriculture and Food (TEEBAgriFood)

In 2014, with the guidance of the TEEB Advisory Board, UNEP launched TEEB for Agriculture and Food ('TEEBAgriFood') with the aim of applying TEEB principles and methods specifically to one economic sector - agriculture – given the impacts and dependencies of this sector on nature and human livelihoods.

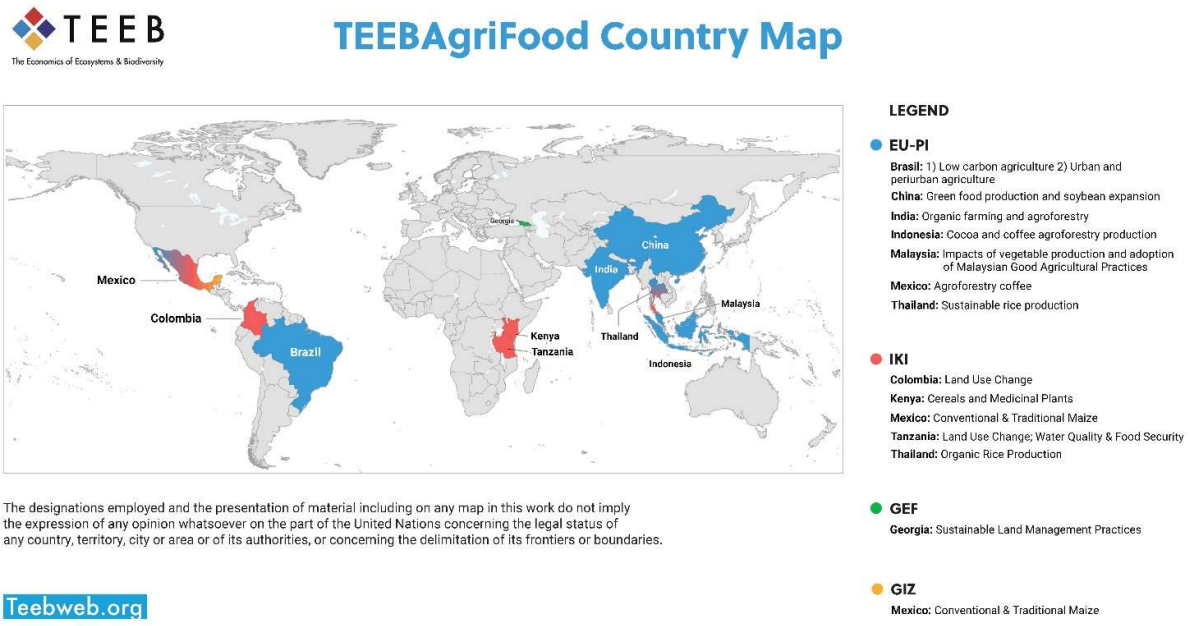
Agriculture is highly dependent on nature, and specifically on well-functioning ecosystems. Globally, food systems are now the source of 60% of terrestrial biodiversity loss, 24% of greenhouse gas emissions, 33% of soil

degradation, overfishing of 29% commercial fish populations and over-exploitation of 20% of the world's aquifers. At the same time, agriculture is a significant source of jobs, livelihoods, social and cultural identities, and determines the health and nutrition of populations. A transformation to sustainable food production systems is needed to address the challenges of protecting our planet while feeding a growing global population.

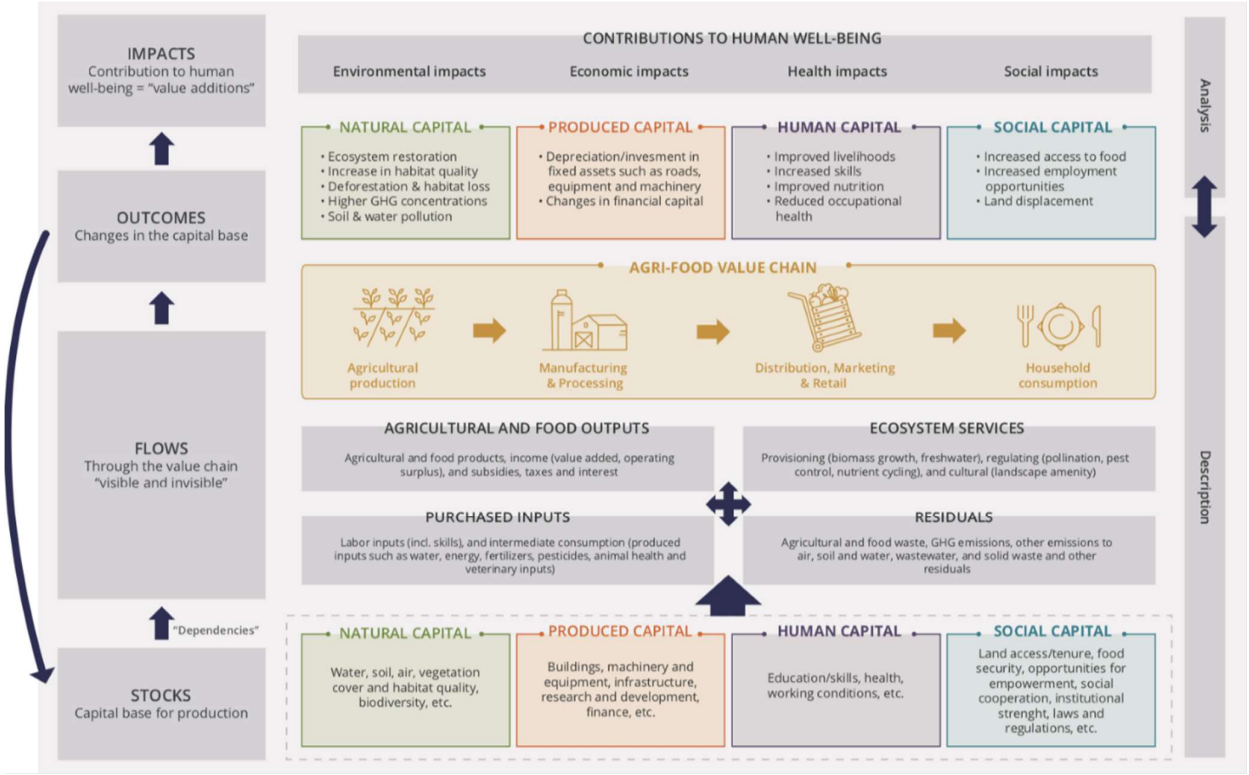
Social and environmental impacts along the agricultural value-chains are still not sufficiently considered or valued in this transformation, especially if they are economically invisible. Decision-makers tend to focus on impacts that can be readily identified, traded, and monetized, and those that are well researched. Often relevant linkages and feedback loops are ignored. Policies, programs and strategies that are designed to address specific problems with 'silo' solutions often have consequences, trade-offs and impacts far beyond their intended effects.

The TEEB for Agriculture and Food (TEEBAgriFood) initiative was developed to apply whole systems thinking to the economics of agriculture. The initiative seeks to provide a comprehensive economic evaluation of the "eco-agri-food systems" complex, - from supporting ecosystems, to productive farms, to intermediaries such as aggregators, wholesalers and retailers, to food and beverage manufacturers, to distributors and consumers. In this way, we can demonstrate that the current economic environment in which farmers operate is distorted by significant externalities, both negative and positive, and fails to take into account the dependency of the agrifood system on natural, human and social capital. TEEBAgriFood, based on systems thinking, can provide new and better insights into a complex reality and thus provides improved guidance for decision making.

In October 2018, the TEEBAgriFood Evaluation Framework was awarded the Future Policy Vision Award for its comprehensive approach providing opportunities to contribute to the majority of the Sustainable Development Goals (SDGs) and offering an effective system of 'true cost accounting', and its respect for the Future Just Lawmaking Principles and Elements of Agroecology. The prize was awarded by the World Future Council in partnership with FAO and IFOAM – Organics International.



The TEEBAgriFood Evaluation Framework was developed through collaboration with over 150 scholars from 33 countries representing a wide range of disciplines, backgrounds and perspectives, to guide the evaluation of food systems and their complex linkages to the environment, society and human health. To create real change, this scientific framework of analysis is being applied at the ground level, aiming to influence current policies and practices. UNEP is currently supporting the implementation of TEEBAgriFood initiatives in over 10 countries around the world, in collaboration with national and local government agencies, local research institutions and private sector businesses and networks. The TEEBAgriFood Evaluation Framework was developed with the objective to create a common language to describe the range of diverse and complex food and agriculture systems coherently and comparably across spatial scales (national, regional, farm), accounting for the negative and positive externalities of these systems.



Source: TEEB, 2018

In Indonesia, the TEEBAgriFood assessment was sent to the President's Office and was used to support the inclusion (for the first time) of agroforestry goals in the Medium-Term Development Plan (Executive Order 18/2020). TEEB Indonesia webpage. In Brazil, TEEBAgriFood found that transition of unproductive pastureland into a sustainable urban food system in São Paulo can supply 13 million people with fresh and healthy vegetables, cool urban temperatures, enhance water infiltration and avoid siltation and a decline in water quality. This evidence contributed to Sao Paulo State policies to include urban and peri-urban agriculture modalities in June 2021. TEEB AgriFood Sao Paolo page

3. The TEEBAgriFood Thailand Project

The research scope is a TEEBAgriFood assessment of dependencies and impacts of the commercial rice sector on biodiversity and ecosystem services. This work focuses on sustainable production practices as advocated under the Sustainable Rice Platform (SRP)[1] Standard for Sustainable Rice Cultivation (SRP Standard). The study will clarify the effects of specific cultivation practices relevant to the SRP Standard on natural capital, human capital, social capital, and produced capital following TEEBAgriFood Evaluation Framework.

The Sustainable Rice Platform (SRP), established in 2011 by international organizations such as the International Rice Research Institute (IRRI), the United Nations Environment Programme (UNEP) and Deutsche Gesellschaft für International Zusammenarbeit GmbH (GIZ), aims to transform the global rice sector through voluntary market transformation towards sustainable production practices. It focuses on improving smallholder livelihoods, reducing the social and environmental footprint of rice production, promoting resource efficiency, reduced carbon emissions and resilience to climate change. The SRP Standard is an internationally accepted sustainability standard for rice, and presents a framework to support claims to sustainability.

In Thailand, the Rice Department of the Ministry of Agriculture and Cooperatives have drafted a new GAP Standard for Rice that is consistent with the SRP Standard adapted to the Thai context. This is often referred to as the "GAP++" Standard for rice. The GAP++ Standard is currently being introduced to farmers through the Thai Rice NAMA project in Ayutthaya, Ang Thong, Chainat, Sing Buri, Suphanburi, Pathum Thani, and Ubon Ratchathani.

TEEBAgriFood Thailand is an initiative under the political lead of the Office of Natural Resources and Environmental Policy and Planning, ONEP, Ministry of Natural Resources and Environment, MoNRE. The Steering Committee engages agencies within MoNRE including the Climate Change Management and Coordination Division, Biodiversity Management Division, of ONEP, the Department of Pollution Control, and the Department of Environmental Quality Promotion. Agencies engaged within the Ministry of Agriculture and Cooperatives include the Rice Department, the National Bureau of Agricultural Commodity and Food Standards, Department of Agriculture, Department of Agricultural Extension, Office of Agricultural Economics, Land Development Department, and the Royal Irrigation Department. Three additional agencies are from related ministries: the Fiscal Policy Office, within the Ministry of Finance, the Department of Disease Control, within the Ministry of Public Health, and Department of Internal Trade, within the Ministry of Commerce. In addition, the Committee includes the Office of the National Economic and Social Development Council.

The Economics Faculty of Khon Kaen University is the host research institution of the TEEBAgriFood Thailand Initiative, leading a team of researchers from several local universities and government agencies to carry out a multidisciplinary analysis of rice agroecosystems. Resources online include the scope of the current research, and the Results and Key Messages of a completed analysis on the expansion of organic rice in Northeast Thailand.

The well-being of farmers and sustainable livelihoods is a central consideration for Thai policy. New incentives for encouraging good practices and discouraging detrimental practices need to be devised to reduce the ecological footprint of agriculture and food systems. The analysis will assess the potential for reorienting existing financial support instruments to achieve goals not only of furthering economic development, but also increasing the efficiency of production, boosting resilience to natural disasters, as well as achieving national environmental targets, to develop multiple benefits through a systems approach.

[1] For more information on the Sustainable Rice Platform (SRP): https://www.sustainablerice.org/

4. Business Component

As part of the project, the Capitals Coalition engages with businesses to adjust agri-business models by supporting them to understand and manage risks and dependencies on nature. In 2020, TEEBAgriFood Operational Guidelines for business were launched, going beyond existing guidance for business by considering the interdependencies between nature and people in the food value chain. This an important stepping stone towards mainstreaming natural capital into decision-making in diversified value chains and geographies.

Agri-Business roundtables and training sessions pave the way for agri-business to measure and manage not just their impacts on produced capital (ie. shareholders), but also their impacts and dependencies on natural capital and the society at large. To support businesses in the application of the TEEBAgriFood Operational Guidelines, one-to-one support is provided to help businesses to complete a capitals assessment, in addition to the training sessions. As such, the evidence base to incorporate systems-thinking in business decision-making grows.

The TEEBAgriFood for business work package is led by Capitals Coalition, in collaboration with SOS Thailand, and endorsed by national business networks including the Global Compact Network of Thailand.

5. Links to EU Priorities

The present TEEBAgriFood application in Thailand – together with China, India, Brazil, Mexico, Indonesia, and Malaysia – is funded by the European Union. As part of the EU's international cooperation strategy, through this project, the EU aims to work with partner countries to take joint action towards halting environmental degradation globally and making commitments on reducing biodiversity loss.

The objectives of the project are aligned with EU priorities and policies in the areas of environment, climate change and food systems transformation. This includes the European Green Deal which sets out ambition in the EU and globally to promote economically, socially and environmentally sustainable development and to address climate change. Biodiversity and ecosystems provide us with food, health and medicines, materials, recreation, and wellbeing. They help keep the climate in balance, fertilize crops and much more. Nature provides for businesses, with half of global GDP, 40 trillion Euro, depending on nature. The Green Deal is supported by three landmark strategies that are mutually reinforcing.

- EU 2030 Biodiversity Strategy which seeks to tackle the key drivers of biodiversity loss, including those linked to food systems; for example to restore degraded ecosystems across the whole of Europe by increasing organic farming and biodiversity rich landscape features on agricultural land.
- EU's Farm to Fork Strategy aims to accelerate transition to a sustainable food systems that: has a neutral or positive environmental impact, helps to mitigate climate change and adapt to its impacts; reverses biodiversity loss; ensures food security and access to sufficient, safe, nutritious and sustainable food; and preserves the affordability of food while generating fairer economic returns.
- Food 2030 is the EU's research and innovation policy to transform food systems and ensure everyone has enough affordable, nutritious food to lead a healthy life.

In addition, the Circular Economy Action Plan emphasizes the need to understand environmental impacts across the value chain of products to reduce waste and support a shift towards sustainable consumption and production

6. Link to international policy

Sustainable Development Goals. As an integrated framework, TEEBAgriFood can assess progress towards and trade-offs between SDGs including: Zero Hunger, Good Health and Well-Being, Gender Equality, Decent Work and Economic Growth, Responsible Consumption and Production, Climate Action, and Life on Land.

Food Systems Transformation. At the global level, TEEBAgriFood engages with the True Value of Food Initiative initiated at the 2021 UN Food Systems Summit at which there was a broad consensus for the need to account for the true value of food to transform how we produce, process, distribute, consume, and dispose of food to tackle the triple planetary crisis. The Scientific Group of the UN Food Systems Summit presented a summary of the evidence in its paper *The true cost and true price of food*

Global Biodiversity Goals. TEEB and TEEBAgriFood approaches support the goals of the Kunming Montreal Global Biodiversity Framework, notably Goal B: "Biodiversity is sustainably used and managed and nature's contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050". TEEB is presented in the Convention on Biological Diversity website

Ecosystem Restoration. TEEBAgriFood supports approaches to food systems transformation – such as organic agriculture and agroforestry – which can reduce land degradation, enhance ecosystem services and contribute to the restoration of ecosystems, in line with the goals of the UN Decade on Ecosystem Restoration.

Natural Capital Accounting. The TEEB approach contributes to and draws upon work ongoing internationally to promote natural capital accounting as a tool to inform environmental policymaking, in particular through the System of Environmental-Economic Accounting. UNEP has partnered with the UN Statistical Division in the EU-funded Natural Capital Accounting and Valuation of Ecosystem Services project to advance the theory and practice of environmental and ecosystem accounting in Brazil, China, India, Mexico and South Africa.