



Circular Economy 2-pager, 23rd November 2022

POLICY LANDSCAPE

Thailand, known for its great tourism destinations, agriculture, and food, has experienced rapid industrial development and urbanization. For decades, Thailand has had sustainability in its core values, starting with the 'sufficiency economy' principles until today with plenty of policy, academic and industrial initiatives in the circular economy.

Today, Thailand is a net importer of energy and raw materials while dealing with pollution and biodiversity challenges at the same time. According to the World Bank, public and private stakeholders recognize the need for sustainable and self-sufficient economic practice, which could deliver estimated additional revenue and cost savings of **USD 1.6 billion by 2025** in three main sectors, food and agriculture, construction, and electrical appliances and electronics.

Figure 1: Amount of municipal waste generated and managed in 2017- 2021, Thailand state of pollution report 2021



Thailand has set its goal to achieve carbon neutrality by 2050 and net-zero emission by 2065. With this goal, the country updates its Nationally Determined Contributions - to reduce greenhouse gas emissions by 40% by 2030 under international support.

Bio-Circular- and Green- Economy (BCG)

To enable these ambitious goals, the Thai Government has adopted the BCG model to drive innovation and technology-led developments in four priority areas: (1) food and agriculture; (2) energy, material, and biochemicals; (3) medical and wellness; and (4) tourism and the creative economy. The three components of the BCG economy are described as Bio-economy: the production of renewable biological resources and conversion into products; Circular economy: building resources for reusing and recycling; and Green economy: driving sustainable development including societal, economic, and environmental success and balance.

BCG IN ACTION:

A number of measures are being developed. These include:

- Thailand's roadmap on [plastic waste management 2018-2030](#)
- The exploration of Extended Producer Responsibility (EPR) schemes in various sectors, including the electronics and packaging industries
- A voluntary green procurement policy under [Thailand's Action Plan of Green Procurement Promotion \(2021-2022\)](#) to stimulate governmental agencies to increase circular procurement
- Investment promotion under the Thailand Board of Investment called the '[BOI go Green program](#)'
- The Alternative Energy Development Plan (AEDP) aims to increase the share of renewable energy to 30% of total energy consumption by 2037

FACTS & FIGURES

ECONOMIC INDICATORS

- Population (2021): 69.9 mln
- Nominal GDP: USD 506 bln World rank:28
- Purchasing power (2021): USD 7,233
- Export from the NL (2021): USD 1.04 bln
- Economic growth (2021): 1.6%
- Ease of doing business (2019): 21/190
- Corruption perception Index (2021): 35
- Unemployment rate (2021): 1.9%
- Currency and exchange rate euro: approx. 37 Thai Baht (THB) per 1 euro
- Time difference with NL: +6.00 hrs

CE INDICATORS

- Recycling rate of municipal solid waste (2021): 32%, 7.89 million tons
- Proper disposal of waste (landfill, incineration, composting, RDF) (2021): 37%, 9.28 million tons

SELECTED PRIORITY AREAS

The Bio-, Circular- and Green- transition opens many opportunities for R&D, socio-economic innovations, and infrastructure development partnerships, particularly in the four priorities industries mentioned above, which have a combined economic representation of 3.4 trillion THB (91 billion Euro), accounting for 21% of GDP.

Specifically for Dutch companies, the Netherlands Enterprise Agency (RVO) and the Netherlands Embassy in Thailand published business opportunities in the '[Thailand Factsheet Circular Economy](#)'.

BIOECONOMY

With a wealth of biomass crop-producing conditions and capabilities (Thailand ranks consistently in the Global top 5 sugar producers), Thailand is uniquely positioned to drive the development of a high-added value bioeconomy. With its agricultural, food, and biomass-producing industries, Thailand can feed biorefineries to produce high-value biofuels, bioplastics and biochemicals while using agricultural waste streams for renewable energy, functional fibres, and food ingredients. Together with innovators in the food industry, the protein transition is being explored. Circular agriculture is widely recognized as the next step forward in the agricultural sector and is supported financially by government agencies such as the [Future Food Program](#).

WASTE MANAGEMENT AND POLLUTION CONTROL

Like other countries in South-East Asia, Thailand faces a massive challenge to organise, develop and implement waste management systems and infrastructure in an integrated way, which requires a combination of technology, financing, policy incentives and consumer awareness. This challenge is considered a high priority since pollution resulting from improperly managed waste, such as plastics, affects biodiversity, human health and sectors like tourism and fisheries. With ongoing activities to develop a packaging EPR program, there is increased momentum that offers opportunities for waste remediation and management technologies and infrastructure, such as sorting and recycling, river and marine remediation and waste-to-energy solutions in central and de-centralized setups. Various stakeholder groups, such as the Public-Private Partnership Plastics, are active in this space, providing entry points for businesses.

Although in most sectors, individual circular economy action plans and roadmaps have been or are being developed, the building and construction sector has already united in the Circular Economy in the Construction Industry (CECI) stakeholder group, which is tasked with the challenge to reduce waste and improve circularity in urban development projects and focus on front-end circular design as well as waste management of construction materials such as concrete and asphalt.

The drive to electrify mobility and transport (target 100% of newly sold vehicles being zero emission by 2035) as well as a shift towards renewable energy sources (target 50% of power mix to be from renewable sources by 2050) stimulate the development of waste-to-energy capabilities, including from biowaste and plastics waste.

LINKS & REPORTS

- World Bank Group report: Thailand Economic Monitor 2022
- Thailand Factsheet Circular Economy (2021)
- Economic Review Thailand 2022 – H1
- Thailand Investment Review 2019 – Circular Economy
- Funding opportunities Netherlands
- Sector scan of the fundamentals for developing the WTE market in Thailand and Malaysia

Relevant Networks

CE think tanks/research institutes

- Global Compact Network
- CIRCO Hub Thailand
- Thailand circular economy hub (in development)
- STEAM platform
- Research and innovation for Sustainability Center
- KX Knowledge Exchange
- ASEAN Centre of Sustainable Development

Business networks

- Netherlands Thai Chambers of Commerce
- Thailand Business Council for Sustainable Development
- Federation of Thai Industries

Government

- Royal Thai Embassy in the Hague, The Netherlands
- Netherlands Embassy in Thailand
- Netherlands Enterprise Agency