Ocean Accounts Thailand
A Study on Sustainable Tourism, the Environment and the Ocean

Thailand’s coastline extends 3,010 km along the Andaman Sea and the Gulf of Thailand, with a maritime area exceeding 323,000 km². Thailand’s marine environment and coastal areas are hence vital to the country’s society and economy.

Why ocean accounts?
Ocean accounts help policy makers to make better decisions about how to manage marine ecosystems and resources. Ocean accounts are particularly important in Thailand as oceans are a huge part of the tourism industry, which itself is of strategic importance.

The development of tourism in Thailand has contributed to the degradation of coastal resources, exerting pressure on the marine resources and marine environment.

Thus, the need to develop tourism in a sustainable way is important.

Research focus
The study investigated linkages between tourism and the environment with the aim of identifying locations at risk of environmental degradation, priority sites for conservation and potential new locations for tourism.

The geographical area studied was the Andaman Cluster – Phuket, Krabi, Phang Na, Trang, Saturn Provinces – with 2016 as the reference year.

Data was organized in accounts following the international statistical standards for national accounting, for tourism satellite accounts and environmental-economic accounting.

Activities and analysis
The pilot study was led by the National Statistical Office with various government ministries and agencies, research centres, non-governmental organisations and academia.

Data sourced included the following – tourism satellite account for the Andaman Tourism Development Cluster; official statistics and geospatial data including land use data from the National Statistics Office, Department of Marine and Coastal Resources, Ministry of Tourism and Sports, Wildlife and Plant Conservation Department, Pollution Control Department, Office of Natural Resources and Environmental Policy and Planning, Department of Fisheries and the Marine Department.

Four core accounts for the year 2016 were built: water, energy, solid waste and greenhouse gas emissions.

The average population density was also assessed as number of individuals (both locals and tourists combined) per km². Excessive tourism (over-capacity) was defined as 900 individuals per km².
Major findings and results
The five provinces in this pilot (out of a total of 77 provinces) generated 50% of the total Gross Domestic Product from tourism, valued as approximately US$7,270 million in 2016.

However tourism accounted for:
- 21% of the total water used;
- 57% of the total energy used;
- 26% of the waste generated; and
- 72% of the GHGs.

Based on this assessment, there is no clear relationship between income generation from tourism and the use of water and energy, and the generation of waste and greenhouse gas emission.

Mapping was done to show the areas at risk of excessive tourism and the relationship with improper waste collection, treatment and disposal and flow of waste to the environment. (Figure 1)

Summary of findings
- Tourism accounts for half the air pollution and energy consumed in the five provinces in the pilot.
- There is a strong link between excessive tourism and improper waste collection and disposal and declining water quality.

Challenges and considerations
Related data was not integrated prior to the project, and there was a lack of market and economic data.

Next steps
From the marine and coastal policy perspective, ocean accounts can be used to estimate the impact of economic development on marine and coastal natural resources and environment.

This would support several policy planning tools such as Marine Spatial Planning, Marine Protected Areas & Marine Ecosystem-Based Management, Ocean Health Index, and Ocean Economy.

Further Reading and Contact Details
For more information, please contact ESCAP Statistics Division - telephone number +66 2288 1234, or visit our resource platform on Environment Statistics via the QR code link.