

GOAL  
8**Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

Photo: UNDP Thailand

*SDG 8 focuses on sustainable and inclusive economic growth through innovation, enhanced productivity, and full employment and decent work for all women and men. It aims at decoupling economic growth from environmental degradation by improving the global resource efficiency in production and consumption, while promoting local sustainable production and sustainable tourism.*

## How do ecosystems and biodiversity support this SDG?

Marine and terrestrial ecosystems underpin many national and global economic sectors providing employment such as agriculture, forestry, fisheries, energy, extractives, tourism, transport and trade. Biodiversity-based economic development is thus an essential step towards achieving the decoupling of economic growth and environmental degradation, or “green growth”. Biodiversity conservation and restoration, by enhancing ecosystems functions and services, can lead to higher productivity and more efficient resource use. For instance, the conservation and rehabilitation of soil ecosystems can increase agricultural productivity through higher land fertility and productivity. Better knowledge and protection of ecosystem functions leads the way to spreading best practices for sustainable use of both marine and land resources towards sustainable production and consumption. The protection of natural ecosystems like mangrove forests, for example, improves sustainable production of shrimps which benefit from mangrove root structures and leaf litter for shelter and food and shade. One hectare of mangrove has been estimated to support 450 kg of shrimps per year in Vietnam.

Biodiversity also offers opportunities for business development in the field of eco-tourism and bio-products. For example, organic certification for bio-products can offer access to better export markets securing higher-end value for these products, thus providing higher income and decent work for biodiversity-dependent communities. Eco-tourism has also become an example of how biodiversity

protection can boost economic growth in a sustainable and inclusive manner. Decent green jobs in key economic sectors can become an engine for sustainable development, as they help to: safeguard ecosystems and biodiversity; decrease energy, water and material consumption; de-carbonize the economy; and reduce or avoid generation of all forms of waste.

## How does UNDP's work **support** this SDG?

### **Case study:** Biodiversity and sustainable production in Thailand

Inland bamboo forest in Kanchanaburi and Prachinburi provinces and estuarine coastal mangrove forests in Phang Nga and Ranong provinces have been identified as ecosystems of significant importance for sustainable economic development. However, intensive and destructive farming and fishing practices threaten mangrove and forest ecosystems, endangering the sustainability of Thailand's fish and non-timber forest products output, the latter of which accounted for US\$48 billion of export in 2007.

The Royal Government of Thailand established the Biodiversity-Based Economy Development Office (BEDO) with the mandate of promoting conservation of biodiversity, improving local community knowledge of best practices for biodiversity-friendly economic growth and enhancing biodiversity-based economic development. This project worked with BEDO on changing production practices to mitigate threats to biodiversity from unsustainable harvesting, and by reinforcing land conservation, particularly in areas of high ecological significance, such as inland bamboo forests.

The project piloted the creation and development of six Community-based Social Enterprises (CbSEs)<sup>1</sup> in four target communities in which a significant share of the population depend on bamboo or marine resources. The project helped the six CbSEs to develop and sell 18 bio-products and services, including bamboo charcoal hygiene products, shrimp paste, and eco-tourism activities.

The production of biodiversity-based products is not new in Thailand, but it is not fully capitalizing on the potential value creation opportunities. This project aims to mainstream biodiversity business into the supply chains of high-value consumer markets by piloting these six CbSEs and increasing BEDO's capacity to promote and support bio-businesses in the country.

The project successfully developed high-end value products such as high-quality shrimp paste in Ranong, which generated \$1,630 in the first two months of sale. In recognition of the importance of a healthy environment to business success, all six CbSEs have included a commitment to allocate 10 percent of their revenue for biodiversity conservation and rehabilitation in their business plans. Conservation and rehabilitation activities funded by the CbSEs included setting up a sub-district community forest committee and patrolling groups to monitor the community forest in Prachinburi and Kanchanaburi, and developing marine biodiversity assessment and mangrove forestation actions in Phang Nga.

Beside these local achievements, the project has focused on enhancing and supporting BEDO's capacity to achieve its long-term mandate. Twelve training programmes and the establishment of a Bio-Economy Platform has enhanced BEDO's institutional capacity and collaborations.<sup>2</sup> BEDO staff has increased by 83 percent and as a result of project support has gained skills and knowledge on biodiversity business.

**PROJECT:** Sustainable Management of Biodiversity in Thailand's Production Landscape

**FUNDED BY:** UNDP, GEF

**LOCATION:** Thailand

**DATE:** 2011-2015

**WEBLINKS:** [http://www.th.undp.org/content/thailand/en/home/operations/projects/environment\\_and\\_energy/sustainable\\_management\\_of\\_biodiversity\\_in\\_thailands\\_production\\_landscape.html](http://www.th.undp.org/content/thailand/en/home/operations/projects/environment_and_energy/sustainable_management_of_biodiversity_in_thailands_production_landscape.html)

<sup>1</sup> The CbSE label is granted to enterprises using local raw materials, having an eco-friendly manufacturing process, and allocating a share of their revenue to biodiversity conservation and rehabilitation.

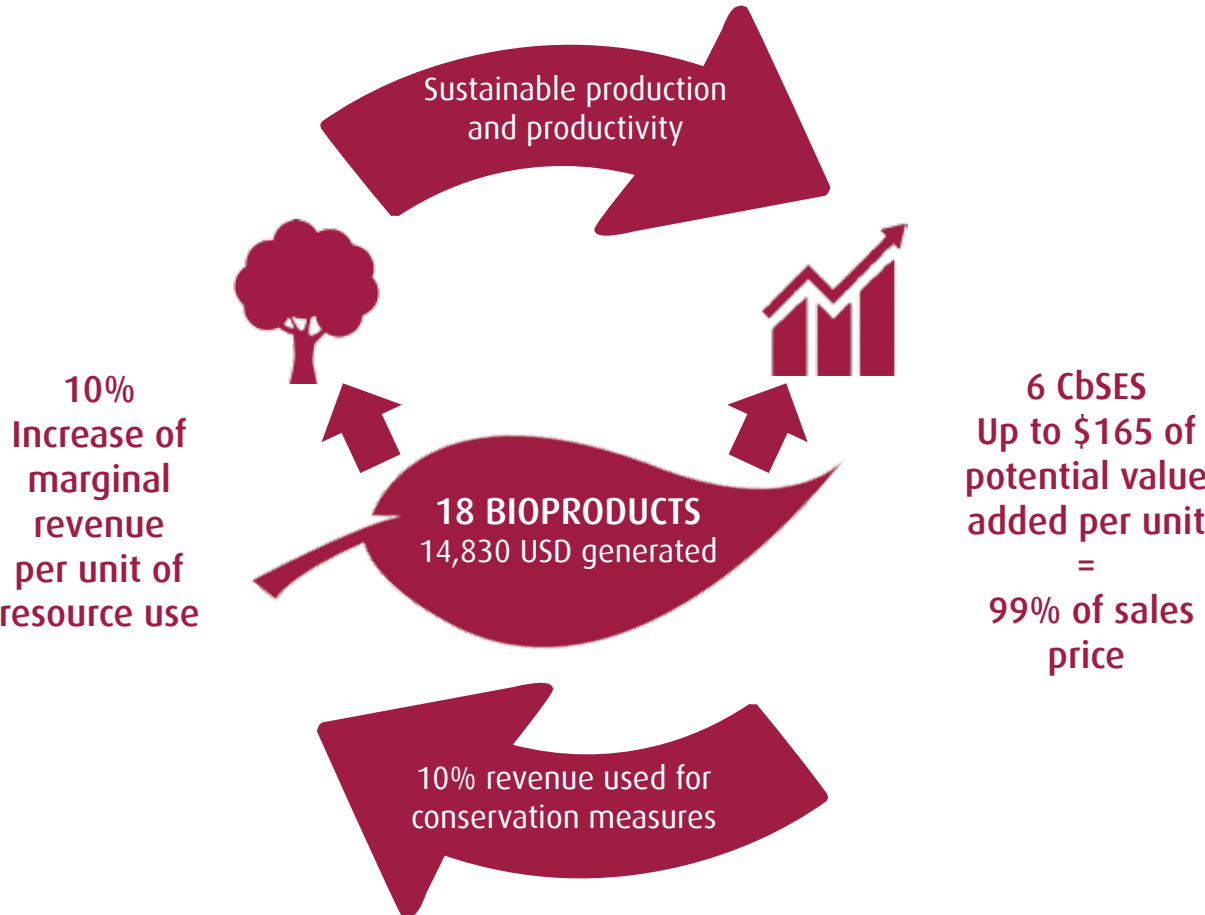
<sup>2</sup> PIR Report June 2015

The project also helps raise awareness nationally and internationally through the development and dissemination of communication materials on commercial potentials in biodiversity business.

This project is an essential step towards mainstreaming biodiversity-based economic development. Bio-businesses, by being both profitable and sustainable, represent a strong and sustainable development opportunity in countries that foster an innovative and entrepreneurial business scene, such as Thailand. Globally, markets for bio-businesses are substantial, with a total market value for certified organic agriculture and forest products expected to reach \$225 billion in 2020 and \$950 billion in 2050 (TEEB 2010). Thus, the potential market size for high-end value bio-products—such as the sea holly and bamboo charcoal personal hygiene products developed under this project—appear promising.

## Nature count\$: Key impacts of the project on sustainable economic growth

The additional income generated by the activities of only two of the six Community-based Social Enterprises (CbSEs) piloted by the project represents an increase of 40 percent and 18 percent from monthly average income per supporting household in Baan Sam Nak community (Ranong Province) and Ban Noon community (Prachinburi Province), respectively. The marginal revenue per unit of resource use is expected to increase by at least 10 percent on average across all product lines, resulting in increased production efficiency for the community. The potential value added by CbSEs' activities has been estimated to account for 45 percent to 99 percent of bioproduct sales prices. The value added for a kilogram of shrimp should be around \$15.6 on an initial gate price of \$2.76, meaning that the value added through CbSE's production process equates to 85 percent of the total sales price. For soap, this can rise up to 99 percent of the sales price, for a value added price of \$165 per litre.



The project is helping to achieve higher levels of economic productivity by focusing on high-end value products (✓SDG Target 8.2). It also encourages entrepreneurship and the formalization of small and medium enterprises, by enhancing and promoting financial support through subsidy and better access to financial services for bio-businesses (✓SDG Target 8.3). By this means it also contributes to decoupling economic growth from environmental degradation (✓SDG Target 8.4), as well as providing decent work for all (✓SDG Target 8.5), and promoting sustainable tourism which supports local culture and products (✓SDG Target 8.6).

## How the economic impacts were calculated:

The Project Implementation Review of June 2015 reported income generated by the sales of products developed by the six CbSEs, by product since the start of sales. Incomes were reported as follows:

Province	Products	Income in USD	Period of sale
Parchinburi	Bamboo charcoal products	2,580	12 months
Kanchanaburi	Bamboo scraps products	1,060	7 months
Phang Nga	Sea Holly products	840	2 months
Phang Nga	Chili Paste	1,570	6 months
Ranong	Shrimp Paste	1,630	2 months
Ranong	Eco-tourism	9,830	6 months

For better clarity of impact these incomes have been divided into monthly income and divided by the number of households involved in the production process as reported by Raks Thai Foundation (2014) for the bamboo charcoal production in Prachinburi. Involved households include founding members and supporting members, however, the additional income generated for each household is an average including both paid dividend and retained earnings for the production. It was then compared to the average community income per household reported in project documents.

The increase in marginal revenue per unit of resource use of 10 percent is the target set for the project. No data is currently available on this from the project outcomes. Value added estimates were conducted for the baseline information report on a wide range of biodiversity-based products. The sales prices were collected from advertising of high-quality products and the gate price was estimated based on initial community-level surveys in the target areas. Transaction costs in the wholesale and retail sectors were rough estimates and highly dependent on actual contract negotiations and marketing strategies.

All data expressed in baht in project documents and other resources were translated into US dollars at the exchange rate of 19 January 2016 being \$1 = 36.3 THB (Bloomberg). All US dollars at 2015 price level.

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