



Natural Capital Project in the Heart of Borneo

Investing in Nature for a Green Economy

Rainforests in Central Borneo that straddle the borders of Indonesia, Malaysia, and Brunei are one of the earth's richest biological treasure troves. Like many tropical areas, forests in Borneo face rapid clearing for commercial uses, particularly to support rubber, palm oil, and wood production. More than two decades of unsustainable logging and hunting, forest fires, plantation development and mining has led to a degradation of forest and freshwater ecosystems in the "Heart of Borneo." High pesticide use and nutrient runoff from palm oil plantations and agriculture continue to impact water quality, threatening the well-being of over 11 million people and thousands of local species including endangered orangutans that now live only on the islands of Borneo and Sumatra.

Shared responsibility to manage Borneo's forests has spurred an ambitious trans-boundary conservation initiative.

In early 2007 the governments of Brunei Darussalam, Indonesia and Malaysia signed the Heart of Borneo Declaration to protect an area of more than 220,000 km² in the center of the island and bordering all three countries.

This historic initiative in the Heart of Borneo is working to establish a functioning framework for trans-boundary cooperation around a number of key areas:

- Establishment of protected areas
- Investment in sustainable resource management
- Support for ecotourism and capacity building.

In partnership with the World Wildlife Fund and the Natural Capital Project, a team of scientists, economists and policy specialists conducted a natural capital assessment for the Heart of Borneo to better understand the value its ecosystems to regional economies and society.



The Heart of Borneo's natural capital has tremendous value.

The Heart of Borneo's natural capital has tremendous social and economic value at local, national and global levels. This includes social values related to traditional knowledge and sacred sites, the value of biodiversity and ecosystems in creating resilience to a changing climate and the value of ecosystem goods and services used as inputs within multiple sectors of Borneo's economy. However, HoB's natural capital has been sharply eroded in recent years. As natural capital is lost, ecosystem goods and services decline. Climate change, coupled with deteriorating ecosystems and biodiversity from land use change, is having further impacts, including sea level rise, risk of floods and fires and changes in the duration and intensity of wet and dry seasons.



Results

■ Released report featured at Rio+20:

The Heart of Borneo: Investing in Nature for a Green Economy was released in June 2012 to highlight methods of developing and implementing green development projects in Borneo.

■ Supported local partners in mapping ecosystem services:

Following a multi-stakeholder workshop conducted by the Natural Capital Project and WWF in Jakarta in December 2010, InVEST analysis was conducted primarily by a local Indonesian team, with support from the Natural Capital Project and other partners. Local involvement creates a strong foundation for ownership and sustainability outcomes.

■ Developing a Green Economy:

We are helping the governments of Indonesia, Malaysia, and Brunei Darussalam develop a green economy where governments, companies and communities value ecosystems for the services they provide, and thereby halt conversion of natural forests and biodiversity loss, generate new opportunities for sustainable and meaningful livelihoods, and reduce greenhouse gas emissions. The establishment of a Green Economy will be supported by ecosystem-based spatial planning, smart fiscal policy, and incentives that reward conservation and sustainable development practices.



Life-Support Systems

Carbon Sequestration:

The forests and peat swamps of Borneo store large amounts of carbon. Over 50% of Indonesia's emissions reduction is intended to come from land-use changes and the forestry sector.

Timber Supply

Timber supply is a valuable ecosystem service that benefits local people, industry, and regional and national economy.

Biodiversity

Borneo boasts one of the largest contiguous tropical forest systems remaining in Southeast Asia. It is home to charismatic megafauna and thousands of plant species. From 1995 to 2012, scientists discovered over 500 new species, and research suggests there are thousands more to discover.

Water Supply

Fourteen of Borneo's 20 major rivers begin their journey from the HoB. Its forests and mountains help replenish and regulate water bodies, and its massive rivers weave from Borneo's central mountain range to offer transport, communication, and fresh water.

Non-Timber Forest Products:

Many people in the HoB rely on the foraging in the forest for food, herbal medicine, and supplies.

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Investing in Nature for a Green Economy

Published in 2012, *The Heart of Borneo (HoB): Investing in Nature for a Green Economy* is a practical guide on how regional economic growth can be achieved while protecting ecosystems and biodiversity of the HoB - a treasure trove of unique and often endangered animal and plants species, and the world's third largest island. Produced by the World Wildlife Fund, the Natural Capital Project, and a consortium of partners, the report highlights environmental costs and forgone revenues in the current economy and shows how valuing natural capital supports the long-term stability and development of local economies in Borneo. The report shows that valuing natural capital supports the building of local economies and illustrates how Brunei, Indonesia and Malaysia can continue to work together across borders to develop and implement a green economy.

Making Business More Sustainable

Our work in the Heart of Borneo brings to light the current unsustainable practices of the forestry, palm oil, and mining sectors in Borneo and shows that the erosion of natural capital leads to a corresponding loss of long-term economic viability and social welfare. These industries are vital to Borneo's economy, but they will continue to remain engines of growth in the future only if they embed sustainability into their business practices. If business continues as usual, economic models indicate the environmental costs of economic growth could outweigh revenues from the use of natural resources as soon as 2020.

Improving Lives of the Poor

A shift to value natural capital could actually improve the life of poor and vulnerable people in Borneo. There are two choices for the use of the immense wealth of natural capital in the Heart of Borneo: depleting their natural capital within a generation, or keeping it in the bank, which would allow many generations to live off the 'interest' forever, in the form of the sustainable goods and services. Shifting to a green economy with an economic infrastructure where fiscal policies and subsidy allocations favor sustainable practices and maintenance of ecosystem services will benefit the people of the region for generations to come.

Shifting to an Alternative Green Economy

Shifting to an alternative, green economy which recognizes the value of natural capital is feasible. The potential benefits of such a shift include reduced poverty, more rapid growth, stronger local economies and enhanced resilience to climate change. In the long term, growth will increase more rapidly when natural capital is sustained, and is essential to ensuring long-term, sustainable economic growth and development.

Policy and finance mechanisms that protect natural capital by rewarding the provision of ecosystem services are emerging in the Heart of Borneo, but not yet at sufficient scale. A shift in the economy to ensure equitable growth, alleviate poverty, and support environmental sustainability is critical in coming years. Developing effective economic instruments, alongside strong law enforcement and clear land tenure, will create a green investment climate in the region that encourages the private sector to engage in certification and payment mechanisms, and rewards communities and businesses for good stewardship. In support of these goals, the Natural Capital Project is helping create practical economic arguments for conservation that show how the robust biodiversity, forests and ecosystems of the Heart of Borneo are engines for sustaining its growth.