



Scientific Facts on

Valuing the ecosystem of the Indonesian rainforest

Source document:
UNORCID (2015)

Summary & Details:
GreenFacts

Context - Indonesia is the third country with the largest area of rainforest, yet it's the one that has the most forest cut down every year.

What can be done to preserve this natural resource for Indonesia's future generations ?

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This is a faithful summary of the leading report produced in 2015 by The United Nations Office for REDD+ Coordination in Indonesia (UNORCID) (Unorcid): *"Forest Ecosystem Valuation Study: Indonesia."*

The full Digest is available at: <https://www.greenfacts.org/en/indonesian-forests/>

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- Each question is answered in Level 1 with a short summary.
- These answers are developed in more detail in Level 2.
- Level 3 consists of the Source document, the internationally recognised scientific consensus report which is faithfully summarised in Level 2 and further in Level 1.

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1. Introduction

Indonesia is the country where the most forest is being cut down every year, exceeding even Brazil, although Indonesia only has a quarter of Brazil's forest area. Forests are cut down either to use the wood or to make way for other uses, like mining and planting fields. Even protected forest areas have been targeted for deforestation to meet demands in international markets, and a lot of the logging activity in Indonesia is still illegal and unregulated. On average, between 2000 and 2012, 671,420 hectares (6714 km²) of forests have been cut down each year.

In 2013, the total forest cover in Indonesia was estimated to be 98 million hectares, about half of the total land cover of the country. With the third largest area of tropical forest in the world, Indonesia's forests play a significant role in climate change mitigation at the national and global level. They are also critical for economic growth and the welfare of people. Therefore, recognising, capturing and demonstrating the benefits provided by forest ecosystems in Indonesia can significantly assist the country in transitioning towards a green economy. This can result in equitable growth, stable economic development and the preservation of Indonesia's natural assets for its future generations.

2. How important are the Indonesian forest ecosystems ?

Biodiversity plays a major role in food security, human health and livelihoods, providing clean water, timber, medicinal plants and other important services. Biodiversity also enhances community resilience to climate change impacts and contributes to carbon sequestration and climate change mitigation.

Regional and global studies have estimated that when ecosystem services are valued in economic terms, they provide trillions of dollars worth of goods and services every year.

3. Why is it important to put a value on Indonesian forests ?

The Forest Ecosystem Valuation Study (FEVS), seeks to put a measurable value on the ecosystem services provided by forests in Indonesia so that the role of forests in the Indonesian economy and society is better understood. By providing quantitative evidence on the values provided by nature, the FEVS seeks to significantly increase investments in forest ecosystems and promote the sustainable management of these natural resources, leading to higher social equity and sustained long-term economic growth.

Over the last few years, Indonesia has demonstrated considerable leadership in recognising the value of its natural capital. Indonesia's forests provide considerable economic, social, and environmental benefits. Since 2007 in particular, Indonesia has been at the forefront of the global effort to promote REDD+ (*Reducing Emissions from Deforestation and Forest Degradation*), a mechanism which recognises and rewards reductions in emissions from deforestation and forest degradation, the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

4. What is the role of forest in poverty alleviation ?

Across Indonesia, more than 74 percent of the poor depend on ecosystem services for their basic livelihoods. Depletion of these services would thus, have dramatic effects on the livelihoods of the poor, whilst widening the national inequality gap. Indonesia's forests, through Non Timber Forest Products (NTFPs) play an important role in the livelihoods of poor rural communities. For example, on average across Central Kalimantan, 76 percent of the incomes of rural households are derived from forests and ecosystem services. In communities where agriculture is the main livelihood, forests provide regulating services, and their further degradation could particularly affect the rural poor and reduce their resilience to any unexpected climate change impacts.

5. What are the key findings of this study on the valuation of Indonesian Forests?

This study demonstrates that a Green Economy (GE) route, where ecosystem services are given a financial value, rather than 'Business as Usual' (BAU), would lead to a better management of forests that would ultimately translates into an increase in production and revenues from the forestry sector.

The upstream timber industry added more than USD 14 billion to the Indonesian economy in 2012 and a further degradation of forest areas would contribute to a decrease in this crucial source of income and also engender a significant loss in tax revenue for the Indonesian economy. Under the Green Economy scenario up to 17,000 jobs could be created on average each year between 2014 and 2030, amounting to a total of 275,000 new jobs in formal forestry sector.

Generally speaking, sustainable management of forests would conserve the value of these assets, reducing administrative and fiscal costs at provincial levels, which could be required if these natural services are degraded and substitutes need to be instituted. Failing to increase investments in forest protection will diminish soil quality and considerably reduce agricultural yields.

Meanwhile, assuming a projected avoided deforestation of over 110,000 km² until 2030, it is estimated that the total cumulative investment required to reach this goal is close to USD 10 billion between 2015 and 2030. The annual investment required therefore slightly exceeds USD 600 million.

Globally, the value of the regulating services provided by forests is estimated to be in the range of billions of dollars each year, much more than the cost of conservation measures, and the local policies and regional development plans can be effective in maintaining provinces' natural capital, only if the relevant stakeholders understand the value services forests provide.