

The Reform Initiatives

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Hadi Prayitno

Direktur Eksekutif-
The Reform Initiatives (TRI)

Indonesia Must Transform Its Forest Economy Beyond Timber

Indonesia stands at a critical juncture in the future of its forestry economy. The country manages approximately 125.5 million hectares of forest area, including production forests, protection forests, and conservation areas. These forests serve not only as ecological assets but also as social, economic, and fiscal foundations that sustain millions of people and support Indonesia's strategic interests.

Indonesia currently manages its forests through three major governance regimes. A total of 579 Forest Utilization Business License holders, known as PBPH, manage approximately 30.2 million hectares. Another 11,236 community groups hold social forestry approvals covering 8.4 million hectares, while 573 conservation areas cover approximately 27.4 million hectares.

These arrangements reflect the roles of corporations, communities, and the state in managing forest resources. They also illustrate why Indonesia must redefine the economic value of its forests.

For decades, Indonesia's forestry economy has relied primarily on timber, non-timber forest products, and environmental services. Ministry of Forestry statistics for 2024 recorded 54.73 million cubic meters of roundwood production from PBPH concessions and 870,409.96 tons of non-timber forest products. Large-scale industries used 66.31 million cubic meters of roundwood as raw material, while forestry product exports generated US\$12.59 billion.

Timber, pulp, paper, plywood, sawn wood, rattan, resin, bamboo, honey, essential oils and other forest commodities still generate significant economic value. This traditional model, however, is approaching a strategic turning point.

Indonesia can no longer build the future of its forestry sector primarily around timber extraction. The country must gradually transform its forests into a broader ecosystem-services economy that generates higher economic value while maintaining ecological sustainability.

Environmental services already provide a foundation for such a transformation. Forests generate economic benefits through water services, hydropower, geothermal energy, ecotourism, biodiversity and carbon. The Ministry of Forestry recorded that environmental-service activities in conservation areas employed 8,661 workers in 2024. Their current economic contribution remains far below their potential.

Carbon provides one of the most important opportunities

The government has strengthened Indonesia's carbon-market framework through Presidential Regulation No. 110/2025, followed by Minister of Forestry Regulation No. 6/2026 and Minister of Environment Regulation No. 10/2026. These policies have reopened space for carbon trading after regulatory constraints had limited its development for several years. The forestry sector holds particularly significant potential because Indonesia possesses extensive forests, peatlands and mangrove ecosystems.

Novita et al. (2022) estimated that Indonesia's natural climate solutions could deliver approximately 1.3 gigatons of carbon dioxide equivalent annually. The potential comes from approximately 26 million hectares of mineral-soil forests, peat hydrological areas and mangrove landscapes. This estimate changes the way policymakers should view forests.

Indonesia's forests do not merely produce timber. They also store globally valuable climate assets. The country can convert part of that environmental value into legitimate economic revenue when it develops credible, measurable and socially responsible carbon projects.

Carbon markets, however, do not reward volume alone. Buyers increasingly assess methodological quality, additionality, permanence, emissions-leakage risks, social safeguards and project developers' reputations. Market credibility therefore matters as much as technical certification.

MSCI Carbon Markets previously projected that carbon-credit prices could range between \$20 and \$50 per ton of CO₂ equivalent by 2030, with an average price of approximately \$35. Prices could rise further as demand increases. The World Bank has also highlighted substantial variation across carbon

markets, reinforcing an important principle: markets assign greater value to integrity than to certificates alone.

The potential economic implications for Indonesia are substantial. Using a moderate price assumption of \$35 per ton of CO₂ equivalent in 2030, a forestry-sector potential of approximately 1.301 billion tons could theoretically generate around \$46 billion in gross economic value, equivalent to roughly Rp774.6 trillion.

Under this scenario, the forestry sector's contribution to gross domestic product could rise substantially from its historical average of around 0.7 percent during 2010–2025. State revenue from the forestry sector could also increase if the government designs fair and effective mechanisms to capture part of the economic value generated by carbon activities.

These figures should not be interpreted as automatic revenues. They illustrate the scale of economic opportunity that Indonesia could unlock through credible governance, strong market integrity and effective implementation.

Paradigmatic transformation

The more fundamental challenge therefore involves changing the paradigm of forest management. PBPH holders, social forestry groups, conservation-area managers, local governments and businesses should begin to treat forests as portfolios of ecosystem-based economic assets.

The old model places timber at the center of economic activity. A new model should integrate carbon, water, biodiversity, ecotourism, non-timber forest products and cultural services into one interconnected economic landscape.

Modern forest-management approaches already support this transition. Sustainable forest management requires governments and businesses to balance production, conservation and social benefits. The ecosystem-services approach recognizes the provisioning, regulating, supporting and cultural functions of forests.

Nature-based solutions also position forests as natural infrastructure that supports climate mitigation, adaptation, water resilience, disaster-risk reduction and community welfare. Climate-smart forestry similarly combines production, carbon sequestration, ecosystem resilience and policy innovation.

This transformation does not require Indonesia to abandon its timber industry. Timber remains economically important because Indonesia has accumulated industrial experience, investment, skilled workers and export markets over several decades. The government should instead encourage timber industries to operate alongside non-timber products and environmental services.

PBPH holders could diversify their businesses into carbon projects, peatland restoration, mangrove rehabilitation, ecotourism, sustainable biomass energy and value-added non-timber forest products.

Social forestry groups could expand agroforestry, honey, bamboo, sugar palm, forest coffee, spices, water services and community-based carbon initiatives. Economic diversification could simultaneously strengthen forest resilience and create new income opportunities for communities.

Governance will determine the transformation

The government must manage forestry transformation systematically, transparently and fairly. Carbon projects must never dispossess Indigenous Peoples and local communities of their legitimate rights. Project developers must apply free, prior and informed consent, or FPIC, before implementing

activities that affect communities. Public authorities should also disclose essential information about project methodologies, project areas, contract periods, buyers, prices, operating costs, benefit-sharing arrangements and grievance mechanisms. Transparency does not merely serve an administrative function. It directly affects market value.

Carbon credits can lose credibility when communities reject projects or when buyers question environmental and social integrity. Social justice therefore should become a core condition of Indonesia's carbon economy rather than an additional safeguard. Indonesia should not reduce forestry economic transformation to another business agenda.

The transformation should become a national strategy to diversify economic growth, strengthen public finances, conserve forests and increase community incomes more equitably.

Indonesia's forestry industry may enter its twilight if it continues to depend primarily on timber extraction. A different future remains possible. The country can open a new chapter when the government, businesses and communities recognize ecosystem services as strategic sources of future economic value.

Indonesia must transform its forests from spaces of extraction into spaces of value creation. Sustainable forests should become the foundation of a productive, equitable and sovereign economy.