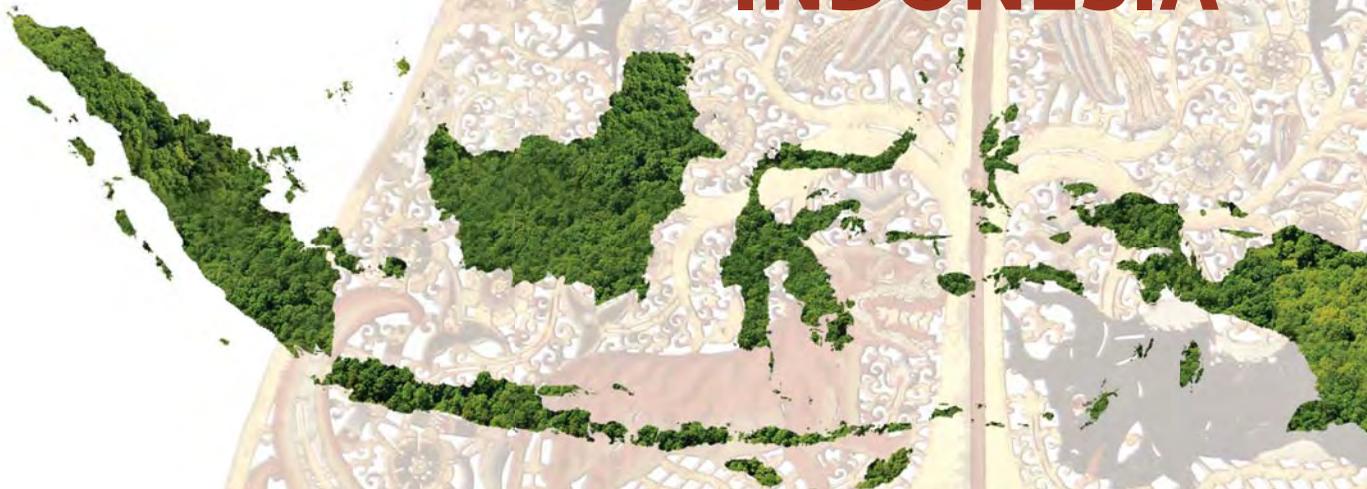


Summary INVESTING IN A MORE SUSTAINABLE INDONESIA



COUNTRY ENVIRONMENTAL ANALYSIS
2009



THE WORLD BANK | BANK DUNIA

General

The World Bank has recently completed a Country Environmental Analysis (CEA) to review the key challenges and opportunities for Indonesia's environment and management of its natural resources, set in the context of sustainable economic development. Results of the analysis are presented in a report entitled **"INVESTING IN A MORE SUSTAINABLE INDONESIA"**¹. The report highlights the economic costs of environmental degradation, and identifies key recommendations to address priority issues of environmental governance and climate change. This analysis intends to guide the World Bank's support to Indonesian institutions for more sustainable development. However, the report can also be used by Indonesian stakeholders to trigger more intense dialogue and prompt decision-making in relation to Indonesia's development path.

The overriding message is that environmental degradation is already costing the Indonesian economy, and costs will continue to increase in the long-run, unless two critical issues are handled:

1. Improve the governance of natural resources and the environment at all levels. This requires actions and incentives to align central, provincial and district/city government actors towards sustainability.
2. Anticipate the effects of climate change by implementing mitigation in the forestry, land-use and energy sectors, as well as adaptation in the water, agriculture, fisheries, urban and health sectors. The Government of Indonesia will reap benefits from an early response to climate change impacts, mainly through safeguarding the poor (who are most vulnerable to climate change hazards), and by preventing economic losses from threats to economic productivity and human health.

1	It is important to clarify at the outset that the CEA is not a "State of the Environment" Report – this type of environmental stocktaking is regularly published by the State Ministry of Environment
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Climate change raises the stakes for achieving sustainable development. Climate change puts at risk the past gains of development (reduction of poverty and extension of services). Sustainable development is a coordination, policy and balancing challenge, complicated by the threat of climate change. All available planning, governance, and policy tools must be deployed to meet the challenge. Fiscal instruments need to send correct messages to investors, consumers and producers to gradually move away from non-renewable resources and increasingly rely on renewables. Signals from central government must make it clear to local governments that a concerted effort for sustainability is underway. The public, constituencies, media, and civil society organizations should join forces to remind the government of their responsibilities, but also to support partnerships for a more sustainable pattern of consumption.

The report defines a more sustainable Indonesia as one where:

- The costs of environmental degradation and climate change are lowered so that less wealth is diverted from growth;
- Good environmental management contributes to poverty alleviation by reducing impacts on the poor and better sharing of benefits;
- Renewable resources are used sustainably while non-renewable ones are wisely developed for investment in human and physical capital; and
- Citizens are aware of and participating in environmental issues directly or through their representatives and other organizations.

The “INVESTING IN A MORE SUSTAINABLE INDONESIA” report is divided into nine chapters. Chapter 1 describes the overall approach for developing the CEA. Chapter 2 summarizes the economics of environmental degradation in Indonesia. Chapter 3 discusses the status and challenges of environmental governance in a decentralized framework. Chapter 4 identifies trends in government revenue and expenditures, as well as fiscal policies that affect environmental sustainability.

The role of the public and their perceptions about environmental issues and natural resources are discussed in Chapter 5. The next three chapters address topics related to climate change, namely adaptation (Chapter 6), land-use (Chapter 7) and energy (Chapter 8). The report concludes with options for a more sustainable Indonesia, including recommendations for how the World Bank can strengthen partnerships in light of the CEA findings (Chapter 9).

The description below summarizes key messages from each chapter.

Why bother about environmental sustainability?

Environmental degradation costs are likely to grow in the coming years. Environmental costs undermine achievements in economic growth and limit opportunities for future growth. Furthermore, since environmental costs disproportionately impact the poor, continued environmental degradation is expected to place additional burden on the state budget. “The Economics of Environmental Degradation” (Chapter 2) shows that natural capital constitutes about one quarter of Indonesia’s total wealth. However, this capital is being rapidly depleted without commensurate investments in human or produced capital to fuel future growth. Inadequate water and sanitation constitute the largest short-term cost to the Indonesian economy, estimated at more than USD 6 billion in 2005 or more than 2 percent of GDP. The health impacts of outdoor and indoor air pollution have been estimated at USD 4.6 billion per year or about 1.6 percent of GNI. The long term economic consequences of climate change could cost the Indonesian economy annual losses of between 2.5 and 7.0 percent of GDP by the end of the century.

Environmental Institutions, Policies and Governance Matter

Indonesia's decentralization policy presents many challenges for environment and natural resource management. The diverse capacity and vision of local institutions require smart application of incentives, enforcement and empowerment by the national government. Chapter 3 reviews the laws, policies, programs, and institutions (national and local) that are responsible for environmental and natural resource management. The chapter also describes some of the positive aspects that have emerged from greater local control of local development policies and programs. It looks also into some obstacles to good environmental management including: inadequate standards and enforcement; problems with incentives, empowerment and insufficient capacity. Options for improvement are also described.

Careful review of policy distortions that harm the environment and economic sustainability is necessary. Some of the distortions could be overcome through an environmental fiscal policy reform that uses taxation and pricing instruments to raise revenues but also to provide incentives for more sustainable behavior. "Enabling Policies for Sustainable Development" (Chapter 4) notes that Indonesia's spending for environmental purposes has been relatively low for most of the decade. Environmental revenue collection has also been low and natural resources have been underpriced. The chapter explains how fuel and electricity subsidies enhance overconsumption, burden the budget and benefit higher income groups, while making it difficult for renewable energy to compete. It also describes how legal and financial incentive structures in the forestry, fisheries and mining sectors have failed to encourage sustainable practices. The chapter concludes with the urgent need to resolve conflicting sector-based regulations and national laws, especially those involving decentralized authority.

Despite many efforts to increase public awareness, demand for a better environment or environmental services is not effective. There is an enormous opportunity for the legislature, civil society, religious organizations, and the media to build a constituency for sustainable development. Chapter 5, entitled “Constituency, Awareness and Critical Partnerships”, shows that the Indonesian population is concerned with a limited number of environmental issues, such as water (pollution, floods, droughts), cities (cleanliness, solid waste, air quality) and forests (degradation, illegal logging, fires). But they are not yet concerned about other issues that the GOI is pursuing, e.g. climate change, coastal and marine resources, biodiversity, clean energy, and hazardous wastes. Organizations that should play a role in building public awareness and demand, and communicating the public’s concerns to the government are largely undergoing a transition phase. Greater partnership is needed with four key actors who can bridge environmental communications between the government and the public: the mass media, civil society organizations, the legislature, and religious organizations.

Climate Change is a New National Priority

The Indonesian archipelago has been identified as one of the areas in Asia that is most vulnerable to climate change hazards. Drought, floods, sea-level rise, and landslides are among the hazards that will affect mainly poor communities living on the coast and dependent on agriculture, fisheries and forestry for their livelihoods. Adaptation involves investing in measures that will protect the population, national assets and resources from damage. Chapter 6 (Adapting to a Changing Climate) describes the multiple climate change hazards and the regions and sectors most at risk. It also discusses the options for adaptation that the Indonesian government has included in its plans as well as additional options that can be considered. Although costs may seem high, the annual benefit of avoided damage

from climate change is likely to exceed the annual cost by 2050, and, by 2100, the benefit could reach 1.6 percent of GDP. Adaptation measures will need to be phased and prioritized according to the magnitude of costs, benefits and risks.

Indonesia's greenhouse gas emissions are currently dominated by emissions from deforestation, land use conversion, forest fires, and peatland degradation. Although the exact magnitude of the emissions is still under review, there is consensus that forestry and land use are key priorities for mitigation. The policy and institutional issues, driving forces, impacts, and development costs of forest and land degradation have been well-known for many years in Indonesia, and should constitute a priority in the mitigation action in this sector. Chapter 7 ("Land Use and Climate Change") shows that during the 2000-2005 period, ten Indonesian provinces accounted for 78 percent of dry forest loss and 96 percent of swamp forest loss, which contributes to greenhouse gas emissions. Just three provinces -- Riau, Central Kalimantan and South Sumatra -- accounted for over half the forest losses during this period. The chapter further discusses improvements in the forestry and land use sectors that should be pursued regardless of climate benefits, i.e. improved forest law enforcement, management and governance; realigned incentives for timber harvesting and processing firms to improve sustainability; restructuring and revitalization of forest sector industries; forest and land fire control; greater equity and transparency in forest/land use decisions; and independent monitoring of legal compliance. It closes with a description of forest climate financing schemes, such as REDD, that can provide important new incentives for instituting these changes.

In the future, emissions from fossil fuel use will be of greater concern than forest and land use emissions. Growth in the power sector has relied on coal, which emits twice as much carbon emissions as gas. Indonesia's large potential for geothermal and other renewables has not been effectively tapped, due to inhospitable energy pricing and policies. The chapter on "Energy and Climate Change" (Chapter 8) discusses how and why Indonesia uses fuel and

electricity inefficiently and excessively, as well as trends in coal use and emissions recorded in the last decade. Without significant change in the sector, emissions from energy consumption will triple from 2005 levels by 2030. The chapter also stresses the great potential for renewable energy, and existing plans to shift to renewables in the country's energy mix. However, policy changes are still needed to push for a more sustainable power sector.

The ingredients for a more sustainable Indonesia are readily available. Some have been known for many years and efforts to realize them have begun. Climate change adds urgency to the entire environment and natural resource agenda, especially since a changing climate can threaten Indonesia's future. International partners are prepared to invest with Indonesian institutions for greater sustainability. Chapter 9 ("Towards a More Sustainable Indonesia") discusses the criteria and strategies for a more sustainable development path. It also describes areas where the World Bank can contribute, based on its long history of partnership with Indonesia on environmental and natural resource management issues. Opportunities for increased partnerships are also presented, along with potential partners among Indonesian stakeholders.

Options for a More Sustainable Indonesia	Potential Partners
<p>Environmental Governance</p> <ul style="list-style-type: none"> Strengthen decentralized environmental governance through geography-based environmental management, local-level financial management and incentives, and a clarification of roles Introduce more enabling policies by harmonizing laws and regulations, and undertaking an environmental fiscal reform agenda Build constituencies by expanding awareness as well as access to environmental information, participation in policy and decision-making and justice 	<p>Ministry of Env., DPR, local govts.</p> <p>DPR, Ministry of Finance Gol, NGOs, DPR, media, religious orgs., Min. of Env.</p>
<p>Adaptation to Climate Change</p> <ul style="list-style-type: none"> Undertake reactive and proactive adaptation measures in the key areas of water resources, agriculture, forestry, coastal/marine, and health, including and in addition to what is currently contemplated Prioritize adaptation options by emphasizing “no regrets” actions that provide benefits even without climate change, buying safety margins for new investments, and favoring reversible and flexible options Implement a phased strategy to mainstream adaptation, including complementary efforts to raise public awareness, undertake research, coordinate, strengthen local capacity, and increase the resilience of vulnerable groups 	<p>Relevant line ministries, Bappenas</p> <p>Bappenas, line ministries, Ministry of Finance Bappenas, Ministry of Finance, line ministries, local governments</p>
<p>Land Use and Climate Change</p> <ul style="list-style-type: none"> Implement “no regrets” options for forest law enforcement, management and governance, realigned incentives for timber harvesting, revitalization of forest sector industries on a more sustainable basis, control of forest fires, and greater accountability, equity and transparency in forest/land use decisions Pursue new sources of forest carbon financing in order to support and accelerate the “no regrets” options 	<p>Ministries of Forestry, Env., Agriculture, local govts., private sector</p> <p>Ministry of Forestry, DNPI, private sector</p>
<p>Energy and Climate Change</p> <ul style="list-style-type: none"> Be guided by high-level planning and coordination for a lower carbon development scenario to reduce the emissions intensity of growth Go beyond existing plans to introduce more efficient energy pricing, encourage investment to develop renewable energy resources, accelerate energy efficiency in key emitting sectors, and take advantage of international financing mechanisms to offset the costs of some of these options 	<p>Ministry of Finance, DNPI Ministry of Energy & Mineral Resources, PLN, Pertamina, private sector</p>



Investing in Indonesia's Institutions for
Inclusive and Sustainable Development

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