CLIMATE ACTION IN INDONESIA

Country context

Indonesia is the world's fourth-most populous country and consists of more than 17,000 islands, with most of the population living in coastal areas. Many Indonesians are dependent on climate-sensitive sectors such as agriculture, fishery and forestry for their livelihoods. Thus, the country is highly vulnerable to climate change impacts, and extreme climatic events. Continuous urbanization, unsustainable use of natural resources, and rising greenhouse gas (GHG) emissions further increase Indonesia's climate change vulnerability.

The government has taken several steps in recent years to address this, starting in 2009 with the Conference of the Parties (COP) in Copenhagen, where Indonesia became the first developing country to make a voluntary commitment to reduce its GHG emissions by 26% using domestic resources and up to 41% with international support below 'business-as-usual' levels by 2020. The **Climate Change Sectoral Roadmap** was published in March 2010 to provide strategic guidance for Indonesia's climate policies across nine sectors over a timescale of 30 years (2010–2029).

The National Action Plan for GHG Reduction was subsequently introduced to help achieve Indonesia's proposed climate targets. Further, provincial governments are entrusted to identify priority mitigation actions through the development of Locally Appropriate Mitigation Action Plans for GHG emission reduction.

At the 2012 RIO+20 Conference, Indonesia again expressed its commitment to move from a brown economy to a green economy; the country formulated this transition as a unique national outcome. The government sought to integrate green economy principles into development planning processes and climate mitigation policies. In this sense, the Low Emission Capacity Building (LECB) project activities supported Indonesia in its efforts to accelerate the achievement of its climate mitigation commitments and adoption of the green economy approach.

LECB
INDONESIA
at a glancE

Total financing
US $1,444,500

5
Timeframe
5 years (2013-2018)

Sectors
Energy, Transport and Housing

Counterparts
President's Delivery Unit for Development and Oversight (UKP4); National Development Planning Agency (BAPPENAS)

Thematic areas

- ☑ Institutional frameworks
- ☑ GHG inventory systems
- ☑ NAMAs
- ☑ LEDS
- ☑ INDC support
- ☑ MRV systems
- ☐ Private sector involvement
- ☐ Climate finance

RESULTS

Developed domestically applicable green economy models

LECB developed the national-level Indonesia Green Economy Model (I-GEM) to support the government in integrating the green economy approach in its planning processes. I-GEM was tailored to domestic conditions and uses a system dynamics approach to help policy makers test the potential social, economic, and environmental impacts of planning related interventions. To demonstrate subnational application of the I-GEM two customized provincial green economy models – the Kalteng Green Economy Model (KT-GEM) and the Jakarta Green Economy Model (JAK-GEM) – were also developed and customized for the provinces of Central Kalimantan and Jakarta respectively.

2
Provincial green economy models developed

for Central Kalimantan and Jakarta provinces

3
Green economy outcome indicators

Green GDP and Decent Green Jobs (globally-accepted indicators) and GDP of the Poor (introduced by the domestic green economy model) introduced into planning

Developed blueprint for implementing "Satu Data", a national integrated open data system

The government's Satu Data ("One data") initiative aims to promote and strengthen the integration, sharing, quality, governance and tracking of climate data across public agencies, and its subsequent use in policy-making. LECB successfully convened support from 20 line ministries and government agencies to prepare a comprehensive blueprint to guide the establishment and functioning of this system.

Developing a pro-poor (green economy) INDC model

Through LECB, a pro-poor INDC model to serve as a tool that supports decision makers was developed; it simulates the impacts of Indonesia's NDC related mitigation policies on poverty and provides feedback on policy adjustments for minimizing poverty and unemployment. This system dynamics-based model includes relevant poverty criteria to help assess impacts of mitigation interventions in five sectors (Waste, Industry, Land Use, Energy/Industry and Transport).

60
Members from parliamentary

legislative commissions trained on the green economy model

Developed four NAMA proposals and associated MRV systems

Proposals developed by LECB include NAMAs for building energy efficiency, biodiesel use in commercial buildings, solar energy in public buildings, and transport (for a Bus Rapid Transit (BRT) system). These NAMAs were envisaged as unilateral NAMAs funded domestically through the national budget. The NAMA proposals focused on the Greater Jakarta region to develop local interventions and appropriate frameworks to build a foundation for further scale up and replication in other urban areas. Monitoring, reporting and verification (MRV) systems were designed to support each NAMA in tracking progress towards goals and impacts. Using a participatory planning approach, subnational government officials were capacitated on climate mitigation, prioritization of mitigation actions, multi-criteria analysis and decision-making approach, and development of NAMA proposals and MRV systems.

4
NAMAs developed

for building energy efficiency, biodiesel use in buildings, solar energy in buildings, and bus rapid transport system

IMPACTS

Mainstreaming the green economy approach into national planning processes for development and climate action kick started and supported.

Policy makers now have enhanced ability to measure and compare social, economic and environmental impacts of policy interventions within and across sectors, through the successful introduction and testing of tailored tools for green economy planning at different geographic scales.

Strengthened capacity to undertake sustainable and low emission development efforts to achieve climate and sustainable development goals

Specially by public institutions and policy makers at different levels, and within civil society. This is supported by the increased appreciation among national and subnational policy-makers on the utility of green economy and pro-poor policy approaches, and mechanisms such as NAMAs.
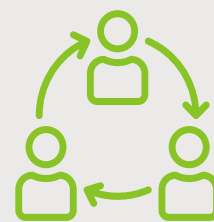
Improved coordination among national institutions in data provision

Achieved through the preparation of the guiding blueprint document to set up a national-level integrated open data system to ensure effective development planning and monitoring supporting the availability of reliable and timely data.

General overview of the UNDP Low Emission Capacity Building Programme

Since its inception, the UNDP LECB programme has paved the way for effective and lasting climate action by building capacities of government staff to develop policies, strategies and tools that help implement their climate change goals. Focusing specifically on essential building blocks such as strengthening GHG inventory data and systems; formalization of institutional arrangement for climate actions; development and alignment of low emission development strategies (LEDS); and the creation of Nationally Appropriate Mitigation Actions (NAMAs), LECB provided much of the enabling environment necessary for countries to respond quickly to emerging needs, such as the submission of Intended Nationally Determined Contributions (INDCs) and socialization of the Paris Agreement. Given its flexible nature and strong country ownership, often the originally-envisaged and measurable LECB outputs have been exceeded, leading to some unplanned but highly welcomed additional impacts.

THE INDONESIAN EXPERIENCE OF APPLYING GREEN ECONOMY APPROACHES

The Indonesia Green Economy Model (I-GEM), developed with support from LECB Indonesia, is a flexible tool for evaluating and testing implications of policy implementation. Through I-GEM's three green economy outcome indicators (Green GDP, GDP of the Poor, and Decent Green Jobs) decision makers can assess impacts of potential policy interventions on outcome areas such as sustainable economic growth, poverty eradication, and employment generation. The **I-GEM incorporated the unique local indicator 'GDP of the Poor'** that reveals, for the first time, the impact of certain policy interventions on poor people's incomes, whose living often depends on nearby ecosystem services.

This model can be used to compare the results of interventions made under 'business-as-usual' scenarios and green economy actions. Thus, the I-GEM can contribute to improving the choice of policy interventions in the medium and long-term and enhancing the effectiveness of policies on the ground when they are implemented.

The national-level I-GEM targets priority sectors (such as agriculture, fishery, forests, mining, and energy) from national strategies and policies as potential drivers of transition to a green economy. To demonstrate I-GEM's value and test it at the provincial scale, LECB in Indonesia developed locally applicable models for the Central Kalimantan and Greater Jakarta provinces.

The national and provincial models follow a similar structure, but were fully adapted to the specific context. For instance, the main focus of the KT-GEM model is on sectors such as mining and forestry that drive Kalimantan's economy and includes detailed estimations of 'GDP of the Poor' for villages that primarily rely on rivers, forests and coal mining. While the Jakarta model (JAK-GEM) places more emphasis on services (and their infrastructure) and demand, such as transport, energy and waste.

Development of these models was led by international experts and extensively engaged a wide range of stakeholders,including government officials at national and regional levels,academics and civil society organizations.

Trainings were conducted to build the capacity of stakeholders on green economy approaches and modelling. A learning-by-doing approach was adopted by involving stakeholders in the development of the I-GEM, KT-GEM and JAK-GEM models. Stakeholder consultations helped to effectively utilize local know-how for tailoring the provincial models to local contexts whilst simultaneously improving technical capacities. A policy note was drafted by LECB to support adoption and utilization of the green economy model as a tool for national and subnational planning. A Green Economy E-Learning Platform was also established to build capacities at a wider scale.

The models successfully demonstrated the socio, economic and environmental benefits that can be realized from green economy interventions vis-a-vis 'business-as-usual' scenarios, leading to improved acceptance of green economy policy considerations among decision makers.

LECB Indonesia made possible by:

UNDP
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