Low Carbon Development Initiatives (LCDI) and SDGs Implementation in Indonesia

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Indonesia: The **Environmental** and **Climate Challenges**

Indonesia's Environmental Issues:
Depletion of Natural Resources & Natural Carrying Capacity

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Stock of natural resources have been **declining**

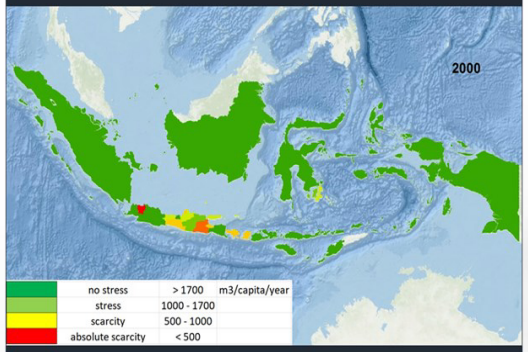
Natural Carrying Capacity has **significantly decreasing**

Forest

Primary Forest
(million ha)

Water

Water Availability
(m^3/capita/year)

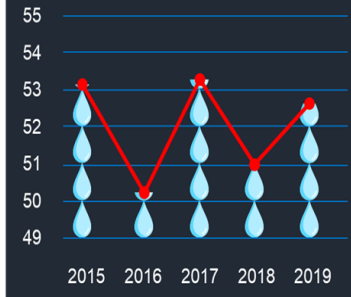


Mangroves

Mangroves Area
(million ha)

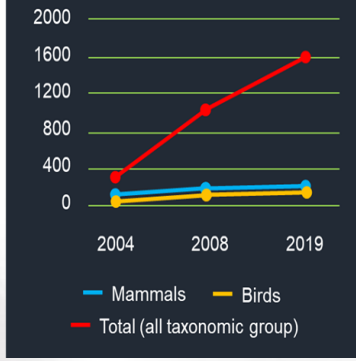
Water Quality

Indonesia National Water Quality Index



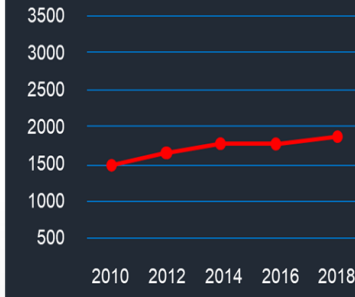
Biodiversity

Number of threatened species in Indonesia



GHG Emission

Total Emission
(million tons/year)



Source: LCDI Secretariat, 2020

Unsustainable development approach has put strong pressure to the natural carrying capacity and created negative externalities. Stock of natural resources have been declining and the quality of environment has significantly decreasing over time.

The Impact of Climate Change and Climate-Related Disasters

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GLOBAL DISASTERS DURING PANDEMIC

More than **100 disasters** occured during first 6 months of the COVID-19 pandemic

More than **50 million** people have been affected

More than **10 different disasters** affected over 250,000 people

99% of people affected were impacted by **extreme climate & weather related disasters**

BNPB Data: Throughout 2020, 99% of disasters in Indonesia were hydrometeorological disasters

Floods in South Kalimantan

The tropical cyclone Seroja

Floods in Jakarta

Image Source: https://www.thejakartapost.com/academia/2021/04/07/indonesias-climate-crisis.html

The tropical cyclone Seroja triggering massive flooding and landslides that **killed at least 165 people**

Economic losses due to disasters based on the Ministry of Finance's records reached an average of **IDR 22.8 trillion per year**

While the death toll due to natural disasters in the last 10 years reached **1,183 people**

Sources: IFRC GO, EM-DAT, World Disasters Report 2020
Notes: WHO declared the COVID-19 pandemic on 11 March 2020. Figures are from 1 March 2020 to 1 September 2020

The Economic and **Social Costs** due to climate change are **high**

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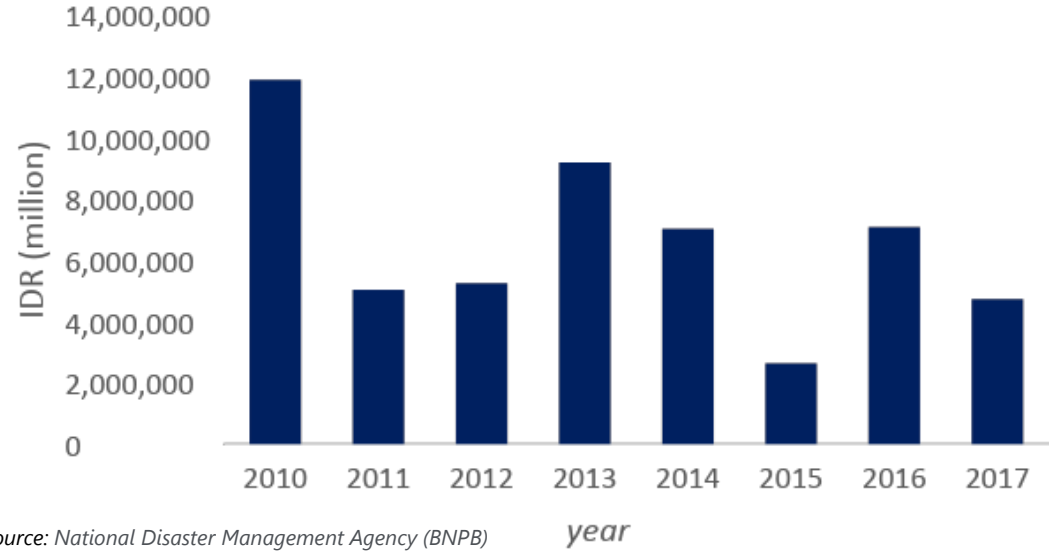
Economic Losses due to natural disasters in Indonesia (2010-2017)

Value of Economic Losses due to hydrometeorological hazards

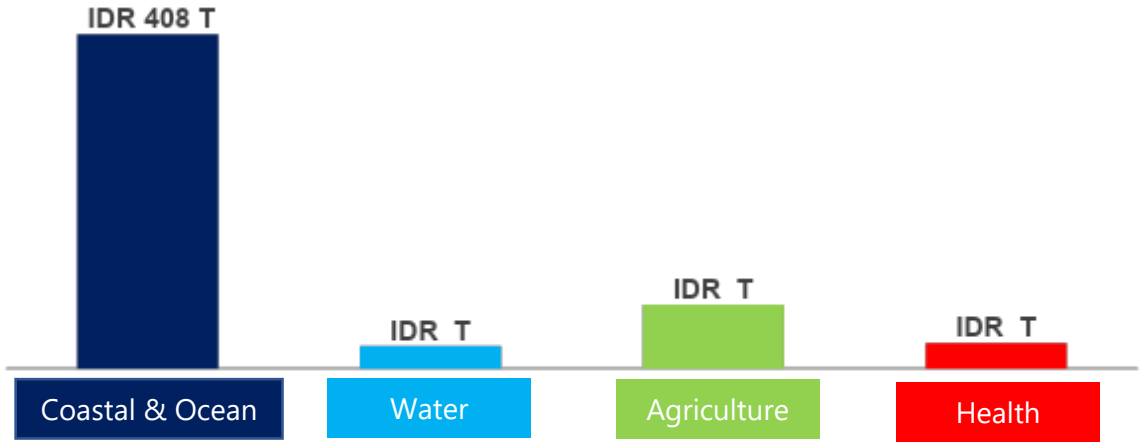


Source: National Disaster Management Agency (BNPB)

Hydrometeorological disasters that occurred in Indonesia reveals economic and social losses. Furthermore, economic losses due to disasters can have an impact on people's livelihoods.

Potential Economic Losses in Indonesia (2020-2024)

Based on Bappenas study, Indonesia could suffer economic losses of up to 544 T during 2020-2024 due to climate change impact, if there is no policy intervention (business as usual)



Source: Ministry of National Development Planning, Bappenas

Potential economic losses due to climate change include Ship Accidents and Coastal Inundation, Decreased Water Availability, Decreased Rice Production, and Increased Cases of Dengue Fever

In medium-term planning document for the 2020-2024, the Government of Indonesia uses economic valuation (potential economic loss) as a measuring tool for 4 priority sectors (water, marine fisheries, health, and agriculture). Climate resilience policy as one of the priorities are considered to be able to avoid potential economic losses from Rp. 115 Trillion (without intervention) to Rp. 57 Trillion (with intervention) by 2024

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National Development Agenda and Indonesia Experiences

Complexity of the Implementation of SDGs (17 Goals, 169 Targets, and 241 Indicators)

What needs to be done?

POLITICAL WILL

- ❑ The SDGs Implementation → as a **MOVEMENT**
- ❑ **Commitment of ALL stakeholders** (Government and Non-State Actors)

STRONG LEGAL BASIS

- ❑ **Presidential Regulation No. 59/2017** regarding Achieving the SDGs → as basis of the formulation of the **SDGs National and Sub-National Action Plan**
- ❑ **Mainstreaming** in the Planning Document (National/Sub-National) → Basis to set **priorities and budget allocation**

GOOD STRATEGY

- ➢ A **participative process** → all stakeholders involved in every step
- ➢ **Clear and measurable** goals and indicators → accuracy and data source
- ➢ Clear **financial source** → Government and Private, domestic and foreign
- ➢ **Responsibility** → each indicator has a ministry responsible for the data
- ➢ **Monitoring** and **Evaluation** → accountability and transparency
- ➢ **Communication Strategy** → accurate and effective

National Priority Agenda to Achieve **SDGs, NDC Targets**, and Address **Climate Crisis**

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Indonesia's commitment to achieve the SDGs

Article 3.4 UNFCCC as a Basis for Strategy and Policy on Climate Change Countermeasures

Indonesia's commitment in Paris Agreement to reduce emissions by 29% by 2030

Bappenas (National SSDGs Secretariat) has made Goal 13 (Climate Change) of SDGs as the foundation of the three pillars of **sustainable development** (Economic Pillar, Social Pillar, and Environment Pillar).

The integration of Sustainable Development Goals (SDG) into the preparation of national development plans aims at **achieving the economic and social growth and reducing GHG emissions.**

Low Carbon and Climate Resilience Development

Low Carbon Development and Climate Resilience is a national agenda that already has clear targets, sectors and locations in the Indonesia's Medium Term Document (RPJMN) 2025–2029

Indonesia's Medium-Term Planning Document 2025–2029 & Indonesia's Vision 2045

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Achieving the **Ambitious Target**

Strengthening the **Partnership** and **Cooperation: Indonesia, the EU,** and **all Nations**

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Indonesia and the EU Partnership and Cooperation

- Economic Cooperation
- Governance
- Human Rights and Gender Equality
- Green Growth and The Environment
- Education
- Implementation of the SDGs

Partnership and Cooperation between Indonesia and the EU covers a wide range of policy areas, including: trade, investment and connectivity; climate change mitigation and the environment; and governance, human rights and security.

The European Green Deal

The European Green Deal is the EU's action plan towards becoming the first carbon-neutral continent by 2050, by creating a more sustainable economy and pursuing a just and inclusive transition for all.

Challenges and **Opportunities** in achieving Indonesia's **low carbon development** and **NZE**

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CHALLENGES

Enormous amount of investment is needed

It is important for Indonesia to start formulate policies to mobilize funding to low carbon activities, either from public funds or private investment, including the compensation for the termination of the Power Purchasing Agreement

Stranded asset risk

The energy transition strategy needs to be prepared carefully, including how the government manages "brown assets" which have been built and have potential to become stranded assets

Awareness to transition to use efficient and environmentally friendly products

Public awareness is needed to realize the transition to environmentally friendly products and technologies, supported by an increase in people's purchasing power

Preparation of Migration to Green Jobs

Energy transition will require preparation of human resources which will be aligned with policies and program on human resource development

OPPORTUNITIES

Green jobs creation

Activities in energy sector are contributing great amount of job creation due to labour-intensive activities, whether in manufacture process and operation.

Green jobs from energy sector are resulted from: RE deployment, energy efficiency activities, and electric vehicles-related occupations with EVs-related occupations as the highest share (more than 50%)

Decarbonization transport

In addition to the issuance of Presidential Regulations that set targets for electric vehicle adoption and provide incentives for local electric vehicle production, there is also a Major Project in the 2020-2024 RPJMN that focuses on the development of transport infrastructure

Regulate carbon trading

Plan for carbon trading, carbon offset, and commodity market offers opportunity to support progress towards meeting and enhanced NDC target

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THANK YOU!

Annexes

Environmental Issues has now **been incorporated** as Government's Priorities in the **RPJMN 2025-2029**

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Indonesia's Medium-Term Planning Document

Within Indonesia's planning document (RPJMN), through a long process, Indonesia has successfully incorporated three program (1) Increasing Environmental Quality (2) Enhancing Disaster and Climate Resilience and (3) Low Carbon Development included as one of the Development Priorities.

Goals	**Program Priority 1** Improving Environmental Quality	**Program Priority 2** Enhancing Disaster and Climate Resilience	**Program Priority 3** Low Carbon Development
	Improving the quality of the environment, through improving the quality of water, air, sea water, land cover and handling pollutants	**Enhancing disaster and climate resilience, through strengthening the convergence between disaster risk reduction and climate change adaptation**	**Implementing Low Carbon Development, through emission reduction policies and emission intensity in priority areas (energy, transportation, land, waste. Industry, and marine)**
Measures	Increasing Environmental Quality Index 69.7 In 2024	Reduction of GDP potential loss due to disasters and climate issues 1,25% compared to total GDP in 2024	Emission Reduction Target 27,3% compared to baseline in 2024	Emission Intensity Reduction Target 31,6% compared to baseline in 2024
	2020: 70,27	**no data available**	**2019: 23.46%**	**2019: 20.77%**

Low Carbon Development Policies to support **Decarbonization** and **Net Zero Emission**

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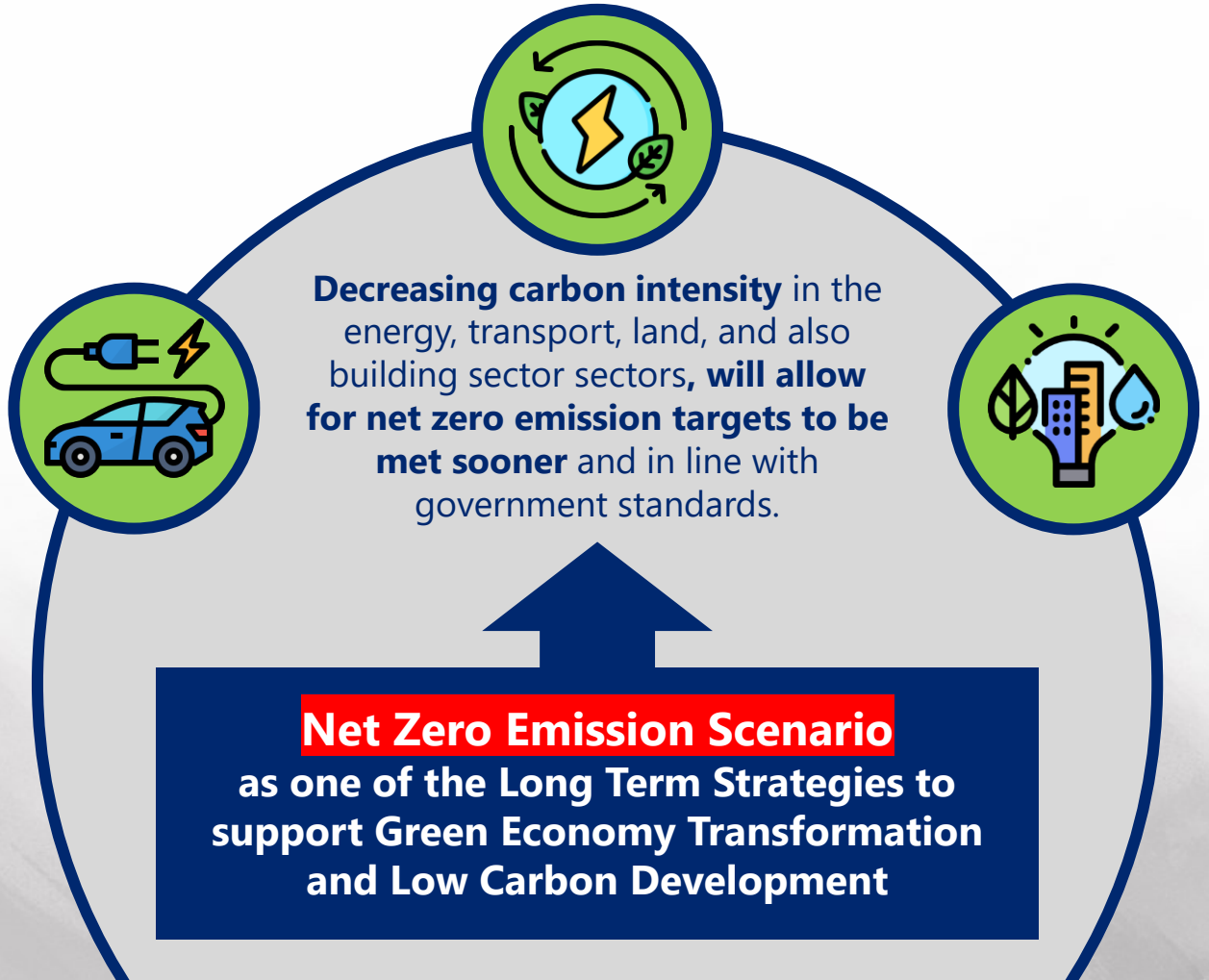
Decarbonization involves increasing the prominence of low-carbon power generation and a corresponding **reduction in the use of fossil fuels.**



Decreasing carbon intensity in the energy, transport, land, and also building sector sectors**, will allow for net zero emission targets to be met sooner** and in line with government standards.

Net Zero Emission Scenario
as one of the Long Term Strategies to support Green Economy Transformation and Low Carbon Development

Specific key policies to support NZE

Energy

- Decrease the Energy Intensity **(Energy Efficiency),** gradually from 1 percent to 6 percent per year
- **New and Renewable Energy,** up to 100% in 2060
- Transition to **Electric Vehicles,** up to 95% of the total vehicles used

Land

- Reforestation
- Peat restoration Mangrove rehabilitation
- Decreasing deforestation
- Forest, Land and Peatland Fires Prevention

Waste

- **Natural resource efficiency for waste production and management through a circular economy**
- Decreasing Liquid Waste Production

Fiscal

- **Elimination of fossil-fuel subsidies** completely by 2030
- Carbon-Tax Implementation

Investment Needed to Achieve **Net Zero Emission Target**

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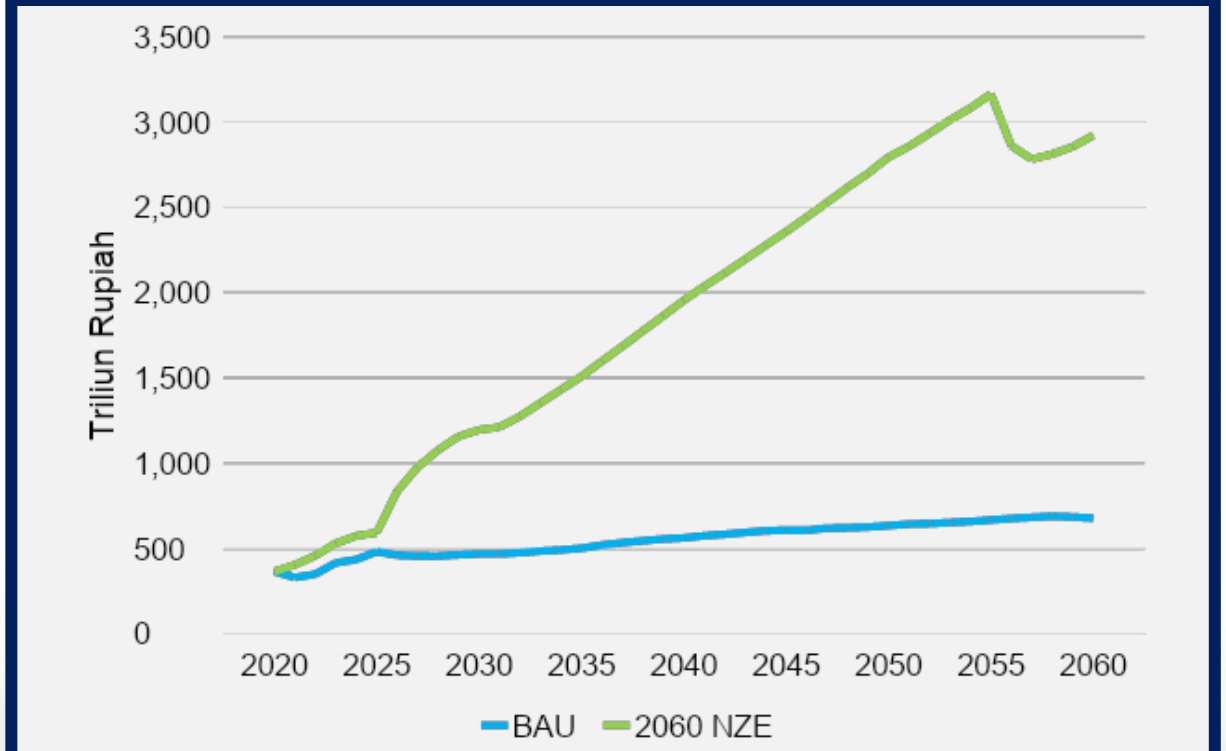
Investment Needed to Achieve Net Zero Emission



Source: Bappenas NZE Modelling

To achieve Net Zero Emission by 2060, Indonesia need a total investment of around **IDR 54.000 Trillion** or equivalent with 5 times Indonesia's GDP in 2020

Prime Mover to Mobilize Investment:

Enabling Environment	Formulation of supportive policies, for example through energy subsidies reform, establishing financing schemes to mobilize private investment, establishing incentive and disincentive policies.
Pilot Projects	Increase industrial and business pilot projects to enrich knowledge and skill and trigger best practices.
Multiplier Effect	Relative to the brown sector, investment in Low Carbon Development is capable to create a broader multiplier effect, which increase attractiveness.