

Foresight workshop: Rethinking Infrastructure for Sustainable, Resilient Development

How could future disruptions create new opportunities for Indonesia to achieve the Sustainable Development Goals and the objectives of the Paris Agreement?

7-9 March 2023, Novotel Bogor, Indonesia

Background

Despite global economic turmoil, Indonesia has proven itself resilient to external shocks, and robust economic growth is expected to return in 2023 (4.5-5.3%) and 2024 (4.7-5.5%).¹ To sustain such levels of growth and continue improving the wellbeing of Indonesia's citizens, well-functioning infrastructure systems are essential. Well-developed infrastructure systems and the essential services they provide, such as mobility and electricity, underpin economic growth, productivity and well-being. Globally, infrastructure has suffered from chronic underinvestment for decades, and Indonesia is no exception. Indonesia faces a sizeable infrastructure investment gap, estimated at USD 445 billion for the period 2022 to 2024.²

Given the long lifespan of infrastructure assets, the investment decisions made today will have a major impact on Indonesia's ability to achieve the net-zero emission goals laid out in the *Long-Term Strategy for Low Carbon and Climate Resilience 2050*. As Bappenas is reviewing and developing Indonesia's National Long-Term National Development Plan (RPJPN 2025-2045) and Medium-Term Development Plan (RPJMN 2025-2029), there is a once-in-a-generation opportunity to build back better following the COVID-19 pandemic, and tackle the triple challenge of closing the infrastructure investment gap, stimulating a sustainable economic recovery while progressing towards long-term climate and development goals.

With financial support from the German Federal Ministry for Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), the OECD Sustainable Infrastructure Programme in Asia (SIPA) aims to help Indonesia address the interlinked challenges of sustainable infrastructure development and climate change. In close consultation with Bappenas, SIPA's key political partner in the Government of Indonesia, a list of high-impact activities has been developed for implementation in the coming years.

In order to support Bappenas in the review and development of its new Long-Term National Development Plan (RPJPN 2025-2045), the OECD is organising a strategic foresight workshop to help Bappenas develop scenarios and construct a strategy that will be aligned with climate, resilience and broader sustainable development goals. The workshop will also be the opportunity to discuss how the OECD and its partners can support Indonesia to deliver on its key priorities under the RPJPN and RPJMN.

¹ https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_2432222.aspx

² <https://www.pwc.com/id/en/media-centre/infrastructure-news/july-2022/chamber-of-commerce---industry--indonesia-needs-us-445-billion-f.html#:~:text=Indonesia%20requires%20US%24445%20billion,of%20the%20total%20required%20funds.>

Objectives and Expected Outcomes

This workshop will use a “foresight” approach to map out alternative plausible futures in 2030 and 2050, and their implications for infrastructure planning and prioritisation today. The strategic foresight workshop’s expected outcomes are an evidence-informed stress-testing of the Long-Term National Development Plan (RPJPN 2025-2045). The three-day consultation will blend strategic foresight methodologies with expert and high-level presentations on key strategic priorities involving Bappenas and international partners such as the OECD, the International Institute for Sustainable Development (IISD), the International Transport Forum (ITF), the World Wildlife Fund for Nature (WWF) and the United Nations Development Programme (UNDP).

The foresight workshops are designed to provide an opportunity for an interactive discussion in small groups to support Bappenas reviewing the RPJPN in light of the net-zero future. They offer the opportunity to examine a number of potential future disruptions that could significantly alter the policy landscape for Bappenas and impact the ability of Indonesia to meet its long-term infrastructure ambitions. The process will develop a number of qualitative reference scenarios that will describe possible futures and the policy implications for Indonesia should those futures be realised. The purpose of this process is to broaden thinking and guide identification of possible opportunities and risks in meeting the long-term strategic vision for infrastructure development in Indonesia.

Participants

The workshop is designed to bring together different communities to discuss the implications of implementing the Paris Agreement and the Sustainable Development Goals for Indonesia’s RPJPN. Participants are invited from the infrastructure community, the financial community and sectoral experts. The meetings will convene around 35 representatives of Bappenas and other selected bodies of the Government of Indonesia, as well as a dozen experts from the OECD and several international partners (IISD, ITF, UNDP and WWF).

Practical information

Venue: Novotel Bogor Golf Resort & Convention Centre, Golf Estate Bogor Raya, Bogor, 16710 West Java, Indonesia

<https://www.novotelbogor.com/>

Language: The event will be held in English.

Contacts:

Ms. Virginie Marchal, Senior Programme Manager, OECD, virginie.marchal@oecd.org

Mr. Douglas Herrick, Policy Analyst, SIPA, OECD, douglas.herrick@oecd.org

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Agenda

Day 1

7 March	Agenda item
10:00-10:30	<i>Welcome participants</i>
10:30-11:15	Session 1: Purpose of the exercise (OECD) <ul style="list-style-type: none"> - Introduction to strategic foresight process - Strategic foresight in the context of long-term infrastructure planning and climate goals
11:15-12:00	Session 2 (1): Exploring emerging changes and future disruptions (break-out) Participants will discuss 1. evidence in the present to support plausibility of future disruptions, 2. implications for Indonesia and 3. implications for infrastructure policy.
12:00-13:30	<i>Lunch</i>
13:30-14:30	Session 2 (2): Exploring emerging changes and future disruptions (break-out) Participants will discuss 1. evidence in the present to support plausibility of future disruptions, 2. implications for Indonesia and 3. implications for infrastructure policy.
14:30-15:30	Session 3: Cross-impacting exercise (break out) Participants will explore a possible future where two of the disruptions occur simultaneously.
15:30-16:00	<i>Tea and coffee break</i>
16:00-17:00	Session 4: Disruption clustering exercise (break out) Participants identify which of the disruptions are likely to occur simultaneously and what the possible implications of this could be.
17:00-17:30	Plenary – consolidate findings and conclusion for the day

Day 2

8 March	Agenda item
9:30 – 10:00	Opening session: Scene-setting for the day (OECD) <ul style="list-style-type: none"> - Rachmat Mardiana, Director for Electricity, Telecommunications and Informatics, Bappenas - Virginie Marchal, Senior Programme Lead, Sustainable Infrastructure, OECD
10:00 -11:00	Session 5 : Priorities and opportunities for Indonesia’s infrastructure development (High level panel discussion - BAPPENAS) <ul style="list-style-type: none"> - Dr. Sumedi Andono Mulyo, Director for National Priority Infrastructure Projects Development and Planning, Bappenas – <i>Indonesia infrastructure strategy</i> - Eka Chandra Buana, Director for Macroeconomic Statistics, Directorate for Economic Affairs, Bappenas – <i>Infrastructure as a backbone for economic development</i> - Nur Hygiawati Rahayu, Director of Forestry and Conservation of Water Resources, Bappenas – <i>Indonesia’s climate and resilience strategy</i>
11:00-11:30	<i>Tea and coffee break</i>
11:30-12:30	Session 6: Mainstreaming resilience in infrastructure plans (1) <i>Scene setting</i> <ul style="list-style-type: none"> • Sophie Lavaud, Policy Analyst, Environment Directorate, OECD <i>Roundtable discussion</i> What are the key priority actions that can be taken to mainstream resilience better in daily activities? (with potential floor interventions from the Ministry of Transportation and the Ministry of Public Works and Housing)
12:30-13:30	<i>Lunch</i>
13:30-14:30	Session 6: Mainstreaming resilience in projects (2)

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	<ul style="list-style-type: none"> - Dr Medrilzam Medrilzam - Director for Environmental Affairs, Bappenas: <i>Presentation of Indonesia's vulnerability to climate challenges and presentation of adaptation plans</i> - Ryan Bartlett, Director, Climate Resilience and Risk Management, WWF- <i>Role of nature-based solutions to build resilience into infrastructure at the national and regional level</i> - Liesbeth Casier, Team Lead, Public Procurement and Sustainable Infrastructure Policy and Emma Cutler, IISD - <i>How to value nature-based solutions in project-level financial evaluations?</i> <p><i>Roundtable discussion</i> What are the key priorities and actions to make sure that green infrastructure and nature-based solutions become an integral part of a long-term infrastructure strategy in Indonesia?</p>	
14:30-15:30	<p>Session 7a: Opportunities and challenges for the energy sector in a net-zero future</p> <p>Part I. Towards a net-zero electricity sector How can the energy transition be accelerated for a net-zero future? <i>Scene setting</i> Muhammad Asrofi, Directorate for Electricity, Telecommunications and Informatics, Bappenas - <i>Priorities and challenges for the future of electricity in Indonesia in the context of a net-zero, decarbonised future</i> <i>Discussant</i> Geraldine Ang, Team Lead, Clean Energy Finance and Investment Mobilisation (CEFIM) programme, OECD - <i>Accelerating investments in clean energy in Indonesia</i> Lucky Lontoh, Associate and Country Coordinator in IISD's Energy program, IISD - <i>Fiscal aspects of the low-carbon transition in energy</i></p> <p><i>Roundtable discussion</i> Key priorities and actions for Indonesia's energy strategy in a net-zero future</p>	<p>Session 7b: The future of mobility in Indonesia</p> <p><i>Scene setting</i> Dail Umamil Asri, Directorate for Transportation, Bappenas – <i>Indonesia's sector strategies to align transport with climate objectives</i></p> <p>Part I. Decarbonising urban transport <i>Discussants</i> Yaroslav Kholodov, Transport Modeler, International Transport Forum – <i>Defining low-emission pathways for urban mobility: insights from an OTF study on Tashkent</i> Nupur Gupta, Senior Transport Specialist, World Bank – <i>Supporting sustainable urban transport in Indonesia</i> Liesbeth Casier, IISD – <i>Estimating the socio-economic and environmental benefits of implementing a BRT system in Bandung</i></p> <p><i>Roundtable discussion</i> Key priorities and actions for Indonesia's mobility strategy in a net-zero future</p>
15.30-15:45	<i>Tea and coffee break</i>	
15.45-16.45	<p>Part II. Decarbonising industry <i>Scene setting</i> Leonardo Adypurnama Alias Teguh Sambodo, Director of Industry, Tourism and Creative Industry, Bappenas - <i>Key priorities for Indonesia's decarbonisation</i> <i>Discussant</i> Hakimul Batih, Indonesia CEFIM Programme Representative, OECD – <i>Framework for industry's net zero transition: Indonesia country stakeholder meeting</i> Verania Andria, Senior Adviser, UNDP – <i>Refuse-derived fuel in Industry</i></p> <p><i>Roundtable discussion</i></p>	<p>Part II. Decarbonising freight</p> <p>Till Bunsen, Transport Analyst, International Transport Forum - <i>Defining low-emission pathways for non-urban freight system – insights from an ITF case study in Argentina</i> Alan C. McKinnon, Kühne Logistics University – <i>Tayloring logistic decarbonisation to the needs, opportunities and constraints of less developed countries</i></p> <p><i>Roundtable discussion</i> Key priorities and actions for Indonesia freight strategy in a net-zero future</p>

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	Key priorities and action for Indonesia's industry strategy in a net-zero future	
16:45-17:30	Session 8 - Sectoral strategy building session Energy, industry and transport (break out) Participants will explore Bappenas' priorities within each of the relevant sectors as well as action steps to take to align sectors with sustainability goals. This session generates a set of priorities and action steps for each sector for use during Day 3's stress-testing sessions.	
17:30-18:00	Plenary – consolidate findings and conclusion for the day	

Day 3

9 March	Agenda item
09:00-09:30	Welcome and introduction to final day's activities
09:30-10:15	Session 9: Stress-testing sectoral strategies under possible future scenario #1 (break out) Sectoral groups are paired with the scenario that is most challenging
10:15-11:00	Session 9: Stress-testing sectoral strategies under possible future scenario #2 (break-out) Sectoral groups are paired with the scenario that is most challenging
11:00-11:15	<i>Tea and coffee break</i>
11:15-12:00	Wrap up and reflections on the implications for policy-making What role for actors and policies?
12:00-12:15	Conclusion and closing remarks
12:30-13:30	<i>Lunch</i>

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