Indonesia Low Carbon Transport Roadmap & Strategies

Regional Cooperation Mechanism on Low Carbon Transport: Establishment and Implementation of Low Carbon Transport Targets and Timelines in Asia and the Pacific

Bangkok, 17-18 July 2024
Indonesia Commitment to Combat Climate Change

President commitment in Paris COP 21 → Paris Agreement

Indonesia 1st NDC & Ratification of Paris Agreement

Indonesia LTS-LCCR & Updated NDC

Indonesia Enhanced NDC

Indonesia Net Zero Emissions

2015 → 2016 → 2021 → 2022

2060 or sooner

Presidential Regulation no. 98 of 2021 concerning Implementation of Carbon Economic Value to Achieve Nationally Determined Contribution Targets and Control of Greenhouse Gas Emissions in National Development
# Indonesia Commitment to Combat Climate Change

<table>
<thead>
<tr>
<th>Year</th>
<th>GHG Emission Reduction Target Per Sector (M Ton CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FOLU</td>
</tr>
<tr>
<td></td>
<td>497</td>
</tr>
<tr>
<td></td>
<td>650</td>
</tr>
<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FOLU</td>
</tr>
<tr>
<td></td>
<td>497</td>
</tr>
<tr>
<td></td>
<td>692</td>
</tr>
<tr>
<td>2022</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FOLU</td>
</tr>
<tr>
<td></td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>729</td>
</tr>
</tbody>
</table>
Transport Policy to Combat Climate Change

Minister of Transportation
Decree no. KM. 8 Year 2023

Determination of the Climate Actions in the Transportation Sector to Achieve the Nationally Determined Contribution (NDC) Target

Minister of Transportation
Decree no. KP-PHB 34 Year 2024

Establishment of a Team for Implementation, Monitoring and Reporting of GHG Emission Inventory and Climate Change Mitigation Action within the Ministry of Transportation
Climate Action for Road Transportation & Railway

1. Development of public transport
2. The use of Area Traffic Control System (ATCS)
3. Transit Oriented Development (TOD)
4. Development of Non Motorized Transport
5. The use of Battery Electric Vehicle & charging station facilities
6. Implementation of Long Distance Ferry (LDF)
7. Rejuvenation of public transport fleet
8. The use of solarcell street lighting
9. The use of solar power plant in the transport infrastructure
10. The use of alternative fuel for the passenger and freight fleet both for road-base and railway
11. The use of solarcell for the sea navigation aid (beacon and flare buoy)
12. Implementasi regulasi uji berkala kendaraan
13. Vehicle periodic test
14. Implementation of Electronic Road Pricing (ERP)
15. The use of rail-base mass transit:
   - Line construction for urban train, commuter line, LRT, LRT, MRT, airport train, port train
   - The use of double track, line revitalization & reactivation
16. The use of alternative fuel for train
17. Management of level crossings in the Jabodetabek area

Source: KM 8 / 2023
Climate Actions for Sea Transportation

1. Vessel Modernization and development of new vessel
2. Implementation of Onshore Power Supply (OPS) at ports
3. Implementation of Ship Energy Efficiency Management Plan (SEEMP)
4. Implementation of Anti Fouling System in the hull
5. Electrification of port equipment
6. The use of solar power plant at ports
7. The use of solarcell street lighting at ports
8. The use of low carbon fuel for ships
9. The use of solarcell for the sea navigation aid (beacon and flare buoy)
10. Shipping telecommunication services (weather information)

Source: KM 8 / 2023
Climate Actions for Aviation

1. Aircraft Renewal
2. Refinement of Systems and Procedures for Operation and Maintenance of Transport Category Aircraft for Passenger Air Transportation
3. The Use of Energy Saving Equipment and Technology at Airports
4. The use of biofuel for aircraft
5. Electrification of ground support equipment (GSE) and operational vehicles at airports
6. Implementation of Performance Based Navigation (PBN)
7. Implementation of User Preferred Routes (UPR)
8. The use of solar cell street lighting at airports
9. The use of solar power plant at airports
10. Implementation of ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)
11. Greening the airport area

Source: KM 8 / 2023
Energy Sector Target in ENDC

CM1: 358 M Ton CO2e

Renewable Energy
- Power: 133.92
- Co-processing alternative fuel in industry: 1.35
- Biofuel: 47.53
- Biogasoline: 0.9

Energy Efficiency
- Energy Management in power sector: 8.2
- Energy Management in industry: 25.67
  - EV: 7.23
  - Transport management efficiency: 6.32
- Household & Commercial: 89.83

Low Carbon Fuel
- Fuel switching and the use of CNG for urban public transport: 0.24
- The use of LPG in household & commercial: 14.68
- City gas network: 0.6

Clean Energy Generation
- Power Sector: 21.53

Unit: Million ton CO2e

Please do not quote, still under discussion with MOEF, MEMR, MOT & MOI
Coordination Between Line Ministries

In setting national target for ENDC, Ministry of Environment & Forestry (MOEF) held several coordination meetings with the line ministries in every NDC sector. For example, for the energy sector, they held coordination meeting with Ministry of Energy & Mineral Resources (MEMR), Ministry of Transportation (MOT), and Ministry of Industry (MOI). The MOEF with their experts already had the modelling for baseline and target for energy sector, then compare with the modelling in every ministries (if any).

The MEMR already had the modelling in energy sector (including the energy demand and supply, for power subsector, transport, and also industry subsector). We gave our opinion/feedback, discussing also about the history of our GHG emission reduction, then in these coordination meeting we were all made the agreement with our target which then be used for national energy sector target.

The MEMR also lead our energy sector group for monitoring the implementation of climate action and the GHG emissions reduction in transport subsector (MOT) and in the industry subsector (MOI).
All of the climate actions mentioned above are actions that use the A-S-I (Avoid-Shift-Improve) approach where its implementation requires collaboration from many stakeholders. For the example, the implementation of EV involves the Ministry of Industry, Ministry of Energy and Mineral Resources, and the Ministry of Transportation and other stakeholders. The role of the Ministry of Transportation itself is more on the vehicle type testing and on electric public transport. The ASI approach is implemented simultaneously because they are all interrelated and complementary.
Challenge & Opportunity

Challenge for ASI Implementation:
- Limited funding
- The habit of people who are difficult to switch to public transportation
- Limited transportation facilities and infrastructure

Opportunity:
- How to get people to switch to public transport
- Incentives for society
- Private transport restrictions
- Oversight and law enforcement
THANK YOU

Center for Sustainable Transportation Management
Secretariat General – Ministry of Transportation
pptb@dephub.go.id || bidangsatu.pptb@gmail.com