

Supporting E-mobility focusing on Electric Two- and Three-wheelers and Policies on Urban Traffic Integration in Indonesia

Expert Group Meeting on Integrating Electric 2&3
Wheelers in Urban Traffic





The International Climate Initiative (IKI) is an important part of the German government's international climate finance commitment. Since 2022 the IKI is implemented by the Federal Ministry for Economic Affairs and Climate Action (BMWK) in close cooperation with the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) and the Federal Foreign Office (AA). Through the IKI, the ministries jointly support approaches in developing and emerging countries to implement and ambitiously develop the Nationally Determined Contributions (NDCs) anchored in the Paris Agreement. This includes measures to adapt to the impacts of climate change and to conserve and rebuild natural carbon sinks, taking into account environmental, economic and social concerns. The IKI also supports its partner countries in achieving the goals of the Convention on Biological Diversity (CBD). The three ministries jointly agree on the basic IKI framework. This includes the instruments that help ensure and verify the values and responsibilities of the IKI, the various funding calls and external communication.

The activities from IKI projects range, for example, from advising policy makers on capacity building and technology partnerships to risk hedging through innovative financial instruments. It also includes studies, project preparation advice for infrastructure development, and investment instruments for climate change mitigation or biodiversity conservation.

To date, IKI has approved more than 950 climate and biodiversity projects in over 150 countries worldwide with a total funding volume of almost 6 billion euros (2008-2022).

The program management, evaluations and technical assistance of the projects, as well as the management of IKI media and communication are supported by the IKI Office at the government owned Zukunft - Umwelt - Gesellschaft (ZUG) gGmbH.



Institute for Transportation Development Policy (ITDP) is a non-profit organization that works in cities worldwide in realizing a sustainable urban transit system as a way to cut greenhouse gas emissions and improve the quality of urban life. Founded in 1985, the Institute for Transportation and Development Policy (ITDP) has become a leading organization in the promotion of environmentally sustainable and equitable transportation policies and projects worldwide. ITDP Indonesia has been providing technical assistance to the provincial governments of DKI Jakarta, Medan, Semarang, and other cities for more than ten years on mass public transportation, parking systems and improving pedestrian facilities.

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1 Background

Under the UNEP project: Supporting E-mobility focusing on Electric Two- and Three-wheelers and Policies on Urban Traffic Integration in Indonesia, ITDP Indonesia is preparing recommendations for road space designs that can accommodate all road users, especially electric two- and three-wheeled vehicles as newcomers who are projected to grow significantly in the near future. Previously, input from motorbike users and other road users, especially from vulnerable groups, regarding safety issues had been collected and studied through a focus group discussion themed "Road Safety Issues Relating to Conventional Motorcycles and Electric Motorcycles" which was held on 18 November 2021. The gathered insights became the basis preparation of draft recommendations. As a follow-up step, an expert group meeting were conducted to collect feedback that would sharpen and verify the suitability of the draft recommendations provided for the existing issues.

This interactive discussion ensured the mainstreaming of gender equality and social inclusion perspectives in all activity outputs and recommendations provided, so that the transition to electric vehicles provides benefits for all groups in society, including vulnerable groups.

This report was prepared as part of the *Supporting E-mobility focusing on Electric Two- and Three-wheelers and Policies on Urban Traffic Integration in Indonesia* project.

2 Meeting Organization

2.1 Meeting Details

Date	17 May 2022, 08.30 - 11.15 am Jakarta time
Location	Online, via Zoom
Participants	Representatives from: <ol style="list-style-type: none"> 1. Indonesian Association for the Blind and Visually Impaired (<i>Persatuan Tunanetra Indonesia/Pertuni</i>) 2. National Movement for Universal Accessibility (<i>Gerakan Aksesibilitas Umum Nasional/GAUN</i>): Advocates for universal accessibility, including for people with disability and the elderly 3. Indonesian Association of Women with Disabilities (<i>Himpunan Wanita Disabilitas Indonesia/HWDI</i>) 4. Indonesian Association of People with Disability (<i>Persatuan Penyandang Disabilitas Indonesia/PPDFI</i>) 5. Sapa Institute (Yayasan Sapa): Non-profit organization for advocating women's rights and issues 6. Yayasan Lambu Ina: Non-profit organization for advocating women and children safety and wellbeing 7. Indonesian Veteran Association - Bandung Chapter (PWRI Kota Bandung) 8. Gandaria Selatan 01 Elementary School 9. Empowered People with Disability and Senior Movement (<i>Pergerakan Disabilitas dan Lansia Berdaya/DILANS</i>) 10. Indonesian Mental Health Association (<i>Perhimpunan Jiwa Sehat Indonesia/PJS-IMHA</i>) 11. Senior citizens of Semarang
Agenda	<ul style="list-style-type: none"> • Presentation of program background information • Presentation of draft recommendations • Breakout room discussions
Language	Indonesian

2.2 Breakout Room Assignment

The online discussion session was organized as four breakout rooms, each was managed by a facilitator from ITDP Indonesia. The participants were assigned to the breakout rooms based on disability types and key advocacy areas.

2.3 Meeting Material

To start the discussion, two presentations were made by ITDP Indonesia. The first presentation covered key information regarding the project, and the second included the draft

recommendations to integrate E2&3W in urban traffic to be discussed further in the breakout session. Overall, the nine key recommendations presented were as below:

1. Adjusting Road Space Allocation (Lane Assignment)
2. Lowering Traffic Speed Limit
3. Reducing Traffic Conflict
4. Limiting Through Traffic
5. Managing Curb Usage (Roadside)
6. Encouraging Transit Connectivity (First/Last Miles)
7. Defining Driving Requirements
8. Required Vehicle Speed Limitation
9. Required Noise Barriers and AVAS



Rekomendasi

Prinsip Desain Ruang Jalan

- Selamat dan aman
- Inklusif dan intuitif
- Nyaman
- Beralih

Desain Jalan dan Operasional	Menyesuaikan Peruntukan Lajur
	Menurunkan Batas Kecepatan Lalu Lintas
Manajemen Ruang Jalan	Manajemen Konflik Lalu Lintas
	Membatasi Lalu Lintas Menerus (Jalan Pintas)
Pengguna Jalan	Mengatur Penggunaan Sisi Jalan (Kerb)
	Mendorong Konektivitas <i>First/Last-Miles</i>
Kendaraan	Mempertegas Batas Minimum Usia, Perizinan, dan Perlengkapan Keselamatan
	Mewajibkan Pembatas Kecepatan
	Mewajibkan Pembatas Tingkat Kebisingan dan AVAS

Figure XX. Draft key recommendations presented in the expert group meeting

3 Key Discussion Points

The feedback and comments from each breakout room for each key recommendations are summarized below.

3.1 Adjusting Road Space Allocation (Lane Assignment)

Breakout room 1: People with visual and hearing impairments

- Road space allocation for various vehicle types must consider the each road's dimension and hierarchy
- The main priorities for pedestrians are safety, comfort, and obstacle-free sidewalks (e.g free from illegally parked vehicle)

Breakout room 2: People with physical disabilities

It is best to consider the available road width beforehand when implementing bicycle/e-bicycle lanes. The existing bus lanes on road already take up enough space – adding bicycle lanes will narrow the vehicular lanes further.

Breakout room 3: Women's rights advocates

Assistive facilities for pedestrian with disabilities must be provided

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- Vehicles, such as e-scooters, that are allowed to access the sidewalk need to further regulated (e.g. imposing a speed limit for e-scooters, etc.)
- The speed limit of 25 km/h on bicycle lane can be reduced to avoid attracting motorcycles to use the lanes
- Road space allocation interventions especially to provide safer non-motorized transport lanes and sidewalks need to be prioritized, in areas with a high density of seniors and people with disabilities

3.2 Lowering Traffic Speed Limit

Breakout room 1: People with visual and hearing impairments

- Reduced traffic speeds are beneficial to vulnerable groups and pedestrians. However, the implementation must be supported by strict law enforcement and penalty of violations from the traffic police
- The application of fines and penalty is important to enforce the lower speed limit

Breakout room 2: People with physical disabilities

- Regulations to reduce traffic speeds are required, particularly in school and residential areas
- Education for users of three-wheeler vehicles with lower speeds than other transportation modes is needed
- Government's efforts to enforce the traffic speed limit is crucial

Breakout room 3: Women's rights advocates

The size and distance of the speed bumps as a measure to reduce traffic speed must be carefully designed to meet the standard to reduce road safety risk of the road users

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- Further research is needed to determine the maximum speed limit, which could be even lower in school zones
- Different speed limits may need to be established for different type of vehicles, for instance heavy duty vehicles

3.3 Reducing Traffic Conflict

Breakout room 1: People with visual and hearing impairments

No specific inputs

Breakout room 2: People with physical disabilities

- Sidewalks that are too high (vertical gap) cause difficulty for people with wheelchairs to access them.
- The practice of installing speakers on traffic lights at intersections can be used to educate motorized transport users and also to give warnings if there is a potential conflict

Breakout room 3: Women's rights advocates

- Urban governance must be paid attention to
- Traffic facilities must be regularly maintained in order to function properly

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- Seniors and people with disabilities need enough time to cross the street. A functional crossing button should be provided to give ample crossing time for those who need it
- Traffic laws must be enforced and priority must be given to vulnerable people
- Stop signs for cyclists are needed to prioritize pedestrians
- Bus stop designs should not obstruct sidewalk lighting, guiding blocks, etc.

3.4 Limiting Through Traffic

Breakout room 1: People with visual and hearing impairments

Future electric vehicles must adhere to the same regulations as conventional motorcycles today, as they potentially also risk the safety of pedestrians and people with disabilities in residential areas

Breakout room 2: People with physical disabilities

The barriers (bollards) on sidewalks or restricted traffic streets should be adjusted to accommodate the width of wheelchairs

Breakout room 3: Women's rights advocates

The installation of portals or roadblocks must consider the condition of the surrounding area. For instance, residential roads might be used as an alternative route during flooding at flood-prone areas (when the main roads are flooded).

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- Motorized transport restrictions on residential areas and narrow streets will improve the safety of the elderly and people with disabilities
- Bollards, speed bumps, and other forms of traffic calming can be ineffective and even dangerous for the elderly and wheelchair users
- Google Maps should not direct the vehicle onto a narrow lane
- Clear signs are required for the restricted traffic areas
- There should be support from the residents. The residents should also be educated on the dangers of speeding traffic

3.5 Managing Curb Usage (Roadside)

Breakout room 1: People with visual and hearing impairments

Provisioning space for short-term drop-off and pick-up points are a good thing. However, the implementation must assure that the curb has sufficient space for these uses.

Breakout room 2: People with physical disabilities

Vehicles should be banned from pedestrian-only sidewalks. The rule must be enforced.

Breakout room 3: Women's rights advocates

- Adequate lighting facilities on the side of the road are required since many roads are not equipped with lights, or the lights do not function properly
- Need to prevent certain groups from dominating the sidewalks for pedestrians. Supervision is required to keep the sidewalks in order.

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- Illegal parking on the road requires public education and traffic law enforcement
- Business permits issuance must take parking availability into account

3.6 Encouraging Transit Connectivity (First/Last Miles)

Breakout room 1: People with visual and hearing impairments

Charging facilities should be provided for E2&3W at transit stations to encourage their use as first/last mile modes

Breakout room 2: People with physical disabilities

Need to provide dedicated parking spots for bicycles and three-wheelers (especially for people with disability). The logo or symbol of people with disability at those parking spots should be made more visible

Breakout room 3: Women's rights advocates

There are often chaotic traffic conditions at transit stations due to the huge number of online ride-hailing motorcycles. These issues must be addressed by organizing areas for online ride-hailing motorcycles, conventional ride-hailing motorcycles, public transportation (feeders), rickshaw, etc.

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- Zonings for rickshaws, online motorcycle taxis, and other vehicles are necessary to improve the convenience of the pedestrians
- Feeder integration needs to be improved

3.7 Defining Driving Requirements

Breakout room 1: People with visual and hearing impairments

No specific inputs

Breakout room 2: People with physical disabilities

The existing regulation which obligates motorcycle users to wear helmets should be enforced. Education on road safety is important from a young age.

Breakout room 3: Women's rights advocates

- Parents must be convinced to supervise their children in terms of the minimum driving age
- Law enforcement officers must be more assertive in supervising motorized transport users

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

Electric vehicles traveling less than 25 km/h may also require to wear helmets or have an age limit, especially to prevent misuse by underaged children

3.8 Required Vehicle Speed Limitation

Breakout room 1: People with visual and hearing impairments

- Speed limits are critical for the safety of other road users and pedestrians, particularly people with disabilities
- Regulations for speed limiting already exist, but there is a lack of enforcement

Breakout room 2: People with physical disabilities

There is a need for speed limit education and enforcement of traffic speed policies for the entire community, particularly motorized transport users

Breakout room 3: Women's rights advocates

When it comes to emergency situations, the implementation of the maximum speed limit on vehicles can be an obstacle

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- Limiting the speed with GPS and other technologies is an excellent choice
- The market and licensing of mobility devices must be monitored to comply with certain standards, such as for high-speed motorized wheelchairs. There should be a clear policy on their lane allocation

3.9 Required Noise Barriers and AVAS

Breakout room 1: People with visual and hearing impairments

- The use of EVs in the future must be regulated, particularly in terms of the use of additional sound emitting devices that can be adjusted to the noise level in dB (decibels) based on the situation. It will be easier for people with visual impairments to detect the presence of a vehicle.
- The proposed 80 dB noise level must be tested to ensure that it can sufficiently indicate the distance of approaching EVs.

Breakout room 2: People with physical disabilities

- The police have carried out campaigns and initiatives to reduce the number of vehicles with noisy exhaust.
- It is critical to educate users to be aware of their vehicles' noise levels.

Breakout room 3: Women's rights advocates

- Noise level limits should be implemented immediately because excessive noise can psychologically disturb pedestrians and other road users
- Vehicle speeds must be limited because many motorized transport users are unconsciously speeding while driving

Breakout room 4: Seniors, children wellbeing advocates, and people with mental/physical disability

- In addition to the audio, it is possible to use lights (body lamps) or other visual markers that met the standards
- Community involvement and education about the existing regulations are important
- AVAS must be implemented in order to make people with blindness familiar with electric vehicles

4 Documentation



