

## EVENT REPORT

# EUM125 Findings Dissemination Workshop

<b>Date &amp; Time</b>	March 29, 2022, 08:30 - 12:00
<b>Venue</b>	Zoom
<b>ITDP Participants</b>	Faela Sufa Mizandaru Wicaksono M. Sulthoanuddin Akbar Etsa Amanda Michael Tanuhardjo Gonggomtua Sitanggang Rifqi Khoirul Anam Nafandra Lubis Thimotius Sebastian Almira Nadia Jemima
<b>External Participants</b>	Opening Speech: <ul style="list-style-type: none"><li>- <b>Arianto Wibowo</b>, Coordinating Ministry of Maritime Affairs</li><li>- <b>Ismanto</b>, Jakarta Transport Agency</li></ul> Speakers: <ul style="list-style-type: none"><li>- <b>Faela Sufa</b></li><li>- <b>Michael King</b></li><li>- <b>Idoan Marciano</b></li><li>- <b>Sharada Gollapudi</b></li><li>- <b>Chandra Sugarda</b></li><li>- <b>Revy Petrigradia</b></li><li>- <b>Louis Pappas</b></li></ul> Panelists: <ul style="list-style-type: none"><li>- <b>Tatan Rustandi</b>, Greater Jakarta Transport Authority</li><li>- <b>Ismanto</b>, Jakarta Transport Agency</li><li>- <b>Uun Ainurrofiq</b>, Grab Indonesia</li><li>- <b>Dhani Priatna Wiradinata</b>, Gojek</li></ul>
<b>Discussion Summary</b>	<ul style="list-style-type: none"><li>- Opening</li><li>- Presentation</li><li>- Discussion</li><li>- Breakout Room</li><li>- Conclusion</li></ul>
<b>Discussion Details</b>	<b>Keynote Speech - Arianto Wibowo (Coordinating Ministry of Maritime Affairs)</b> <ul style="list-style-type: none"><li>- Regulatory and technical requirements have been resolved</li><li>- In 2025 the production of two-wheeled KLBB will reach 6 million units</li><li>- The Ministry of Energy and Mineral Resources encourages the transition to electric two-wheeled vehicles</li><li>- There are still some difficulties faced, especially in terms of finance/financing</li><li>- It is hoped that the subsidy scheme can be transferred to sectors that support the transformation to electric vehicles</li></ul>

### **Keynote Speech - Ismanto (Jakarta Transport Agency)**

- The Department of Transportation is very supportive of the road transport electrification program currently underway, namely the electrification of TransJakarta
- Mobility in DKI Jakarta in 2021 has reached 18 million which is dominated by two-wheeled vehicles and has increased by 6% from 2020.
- The carbon emission created is 67.3%, so it requires mitigation efforts to reduce emissions
- The DKI Jakarta Provincial Government encourages the use of electric-based private vehicles by providing several incentives in the form of:
  - "Even-odd Policy" free
  - Motorbike free
- The DKI Jakarta Provincial Government has operated electric public transportation on the TransJakarta system
- It is hoped that in the future, people can use electric vehicles so that there will be an increase in the production of electric vehicles which can reduce the price of electric vehicles

### **Presentation - Faella Sufa (ITDP Indonesia)**

- The high movement in the use of online motorcycle taxis allows for price parity before the general electric two-wheeled vehicle service runs out
- The high number of online motorcycle taxis can encourage the growth of the electric vehicle ecosystem
- The steps in compiling a road map for electrification of two-wheeled vehicles:
  - a. Identify the appropriate type of electric two-wheeler (specification and model)
  - b. Vehicle financing
  - c. Construction of charging facilities
  - d. Roadmap preparation and phasing phases
- In identifying the appropriate type of vehicle, it is necessary to consider daily mileage, reference dimensions for passenger comfort, maximum carrying capacity, duration of rest time, electric motor power output, and speed.
- A market study was conducted to identify suitable vehicles by comparing the characteristics of several models of electric two-wheeled vehicles and calculating TCO for a period of 10 years.
- To find a suitable financing scheme, an analysis is carried out taking into account the financial capabilities of online ojek drivers (income and purchasing power of drivers) and ownership schemes (privately owned or leased).
- Online motorcycle taxi drivers have a preference for owning their vehicle and are not yet interested in buying an electric motorbike
- There are 3 schemes analyzed, namely:
  - a. **Owned by driver**  
The driver buys an electric motorbike after negotiating the price of an online motorcycle taxi company with the manufacturer
  - b. **Leasing by third parties**  
Online motorcycle taxi operators work with third parties to rent vehicles for drivers
  - c. **Owned by company**

	<p>The company buys an electric motorbike by getting a discount and rent/sell it to the driver</p> <ul style="list-style-type: none"> <li>- To grow the interest of online motorcycle taxi drivers, marketing strategies can be carried out such as marketing through digital media, outdoor, and personal experience (test-drive) and providing education to drivers, encouraging the choice of electric vehicles, and accelerating driver growth.</li> <li>- In the charging facility development plan, consider: <ul style="list-style-type: none"> <li>- Daily mileage exceeds battery capacity</li> <li>- Availability of time for charging</li> <li>- Long charging</li> <li>- Battery swap is more suitable</li> </ul> </li> <li>- The calculation is divided into 3 zones based on the number of online motorcycle taxi requests</li> <li>- The phasing phase was developed from the Everett Rogers diffusion model to estimate the technology adoption process, resulting in an estimated 900,000 electric vehicle usage in 2021 with a growth of 5.6%</li> <li>- The phasing strategy is carried out in 5 stages, namely: Pilot Phase, Evaluation Phase, Partnership Phase, Complete Adoption Phase, and Enhancement Phase</li> <li>- In the application of electric vehicles, fiscal and non-fiscal incentives can be applied (Low Emissions Zone)</li> <li>- Based on the results of the impact-benefit analysis (CBA) it was found that the total cost required until 2030 is around 23 Trillion Rupiah.</li> <li>- Electric two-wheeled vehicles can reduce emissions by 58%</li> <li>- In terms of benefits, the use of electric vehicles can save the cost of purchasing R2, operating and maintenance costs, saving on fuel subsidies, increasing industrial tax revenues, reducing pollution and increasing related industry revenues.</li> <li>- The need for the electricity network to meet the demand for additional power is 229,950 MWh/year.</li> <li>- There are nine interventions to encourage the use of R2 electric vehicles which include road design and operations, road space management, road users, and vehicles.</li> <li>- The importance of GESI's consideration in the development of the roadmap is to create gender-inclusive and gender-responsive two-wheeled vehicles and the hope is to increase gender equality and inclusiveness in socio-economic aspects.</li> <li>- In its mainstreaming, GESI is carried out in four stages (preparation, planning, implementation, and monitoring and evaluation) starting with understanding GESI, making special regulations, implementing policies, and evaluating</li> </ul> <p><b>Response #1 - Solihin Purwantara (Greater Jakarta Transport Authority)</b></p> <ul style="list-style-type: none"> <li>- In electrification of online motorcycle taxis, it is necessary to provide related analysis: <ol style="list-style-type: none"> <li>1. The distance traveled and the amount of profit earned by the driver (the gap between two wheelers' electricity and gasoline's prices, also the difference between its amount of expenditure and amount of income),  <b>FS:</b> ITDP has conducted a comparative analysis of the TCO of electric and conventional vehicles  <b>Revy:</b> We have calculated the TCO comparison of 4 main online</li> </ol> </li> </ul>
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motorcycle taxi services with electric two-wheelers and conventional two-wheelers. From these calculations it was found that the TCO two-wheeler's electricity is cheaper than the conventional TCO two-wheelers.

2. Specifications of electric charging at home

**FS:** This study has identified several possible charging stations, such as charging at home, high-traffic corridors, and charging posts provided by partners

**Idoan:** Charging at home can be done because the need for charging two-wheelers will not be as high as an electric car. The minimum electrical capacity at home to be able to charge two-wheeler's electricity is 400 - 900 Watt

3. Economic aspects, such as solutions for profit

- From the results of BPTJ research, the use of motorcycles for online motorcycle taxis has reached 38%

**Response #2 - Hendra (Jakarta Transport Agency)**

- Vehicle electrification has been regulated through a presidential regulation although it does not specifically mention the type of vehicle (two/three/four wheelers)
- The Department of Transportation hopes that there will be further studies related to the electrification of three or four wheelers and the synergy of regional and national electrification roadmaps.

**Response #3 - Uun Ainurrofiq (Grab Indonesia)**

- Since 2019, Grab has been committed to encouraging the implementation of presidential regulations regarding the acceleration of the use of electric vehicles
- Currently, 8000 units of electric two and four wheelers are operating to serve riders' trips
- From the pilot stage, Grab found several findings related to the implementation of electric vehicles, including:

1. There is a difference in the TCO of electric and gasoline-based vehicles. But at this early stage, the cost is still higher than gasoline-based vehicles. As a suggestion, the provision of fiscal incentives can be carried out at an early stage to encourage the use of electric vehicles and send a strong signal that electric two wheelers can provide many benefits.

**FS:** Agree that fiscal incentives need to be done to speed up the transition, standardize charging stations, and GESI

2. The presence of range anxiety - the fear of the motor running out of power. The solution is to increase battery swap stations and standardize plugs.

**FS:** This study has identified several possible charging stations, such as charging at home, high-traffic corridors, and charging posts provided by partners

3. GESI - Due to the limited range, the use of EVs can be optimal for food delivery in high operational areas such as office complexes. Female drivers tend to choose to take food delivery orders.

**Chandra Sugarda:** Based on the findings of this study, it is consistent with what was conveyed by Mr. Uun, that female drivers are more likely to take orders for food/goods delivery



services. Meanwhile, disabled drivers choose to take food/goods delivery services due to limited communication

**Response #4 - Dhani Priatna (Gojek)**

- Financing is the main factor for drivers to switch to electric two-wheelers
- From a technical point of view, it is hoped that factors that will facilitate the transition to electric vehicles can be found, such as the ease of finding a station.
- From GOJEK's experience, there is a reduction in operational costs
- GOJEK has a zero-emission target by 2030, one of its efforts is to build an EV ecosystem.
- **Revy:** Drivers still doubt the use of EV and after-sales vehicles and the ease of access to charging or battery swap stations. There needs to be a strong campaign to convince drivers to switch to vehicles.

**Response - Chandra Sugarda**

- Female and disabled drivers are more open to the transition to electric vehicles because they don't take speed into account. This is due to the fact that more female drivers take food/goods delivery services. Meanwhile, male drivers are more secretive because they consider the speed of delivering passengers.
- Female drivers have a preference for charging locations that are close to commercial areas, disabled drivers choose a charging station located near a familiar residential/environment.

**Response - Sharada Gollapudi**

- The study of the charging location still requires further study.
- Standardization will take time due to differences in models from manufacturers, so it requires more markets to standardize

**Response - Louis Pappas**

- Need to assess policies to determine the right business model

**Response - Michael King**

- There's potential to integrate public transport and app-based transportation such as Transjakarta with ride-hailing
- Moreover, there's technology capacity to have payment integration
- It is difficult to regulate two-wheelers as they could go wherever they want, sidewalks for instance
- Adoption to electric 2W could improve noise emission and street safety because of lower speed limit
- Priority parking space for e2w could enhance the electric 2w adoption.

**Conclusion**

**Breakout Room 2**

- Electrification is a new thing and still needs further review, from the legal, institutional, regulatory, and other aspects.
- In the current condition, there are still many violations of motorized vehicles, especially conventional two wheelers, such as indiscriminate parking. The hope in the future is that the application of electric vehicles, especially electric two/three wheelers, can have a positive influence in regulating the orderliness of two wheelers vehicles and encourage the transition to electric vehicles.

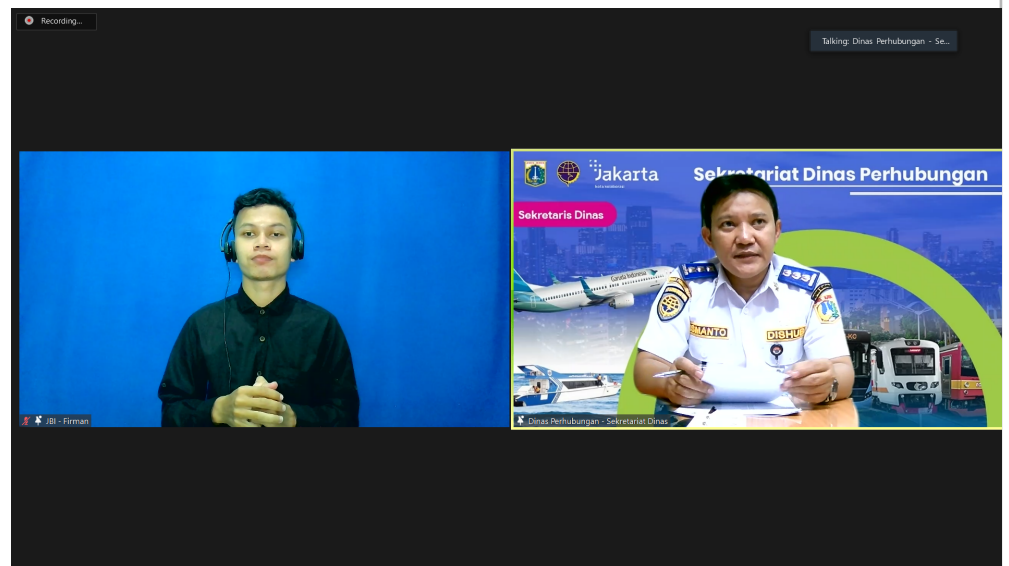
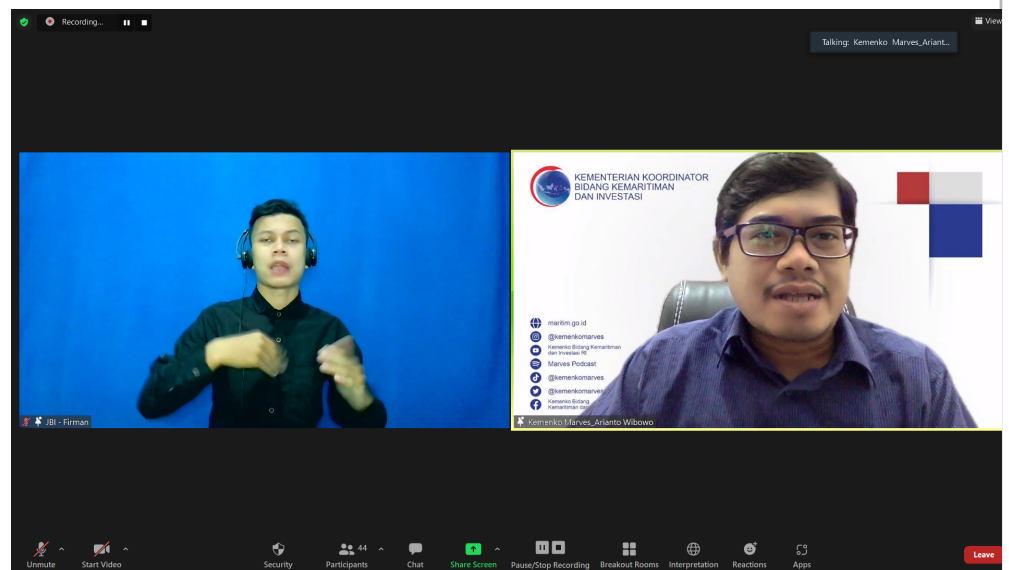
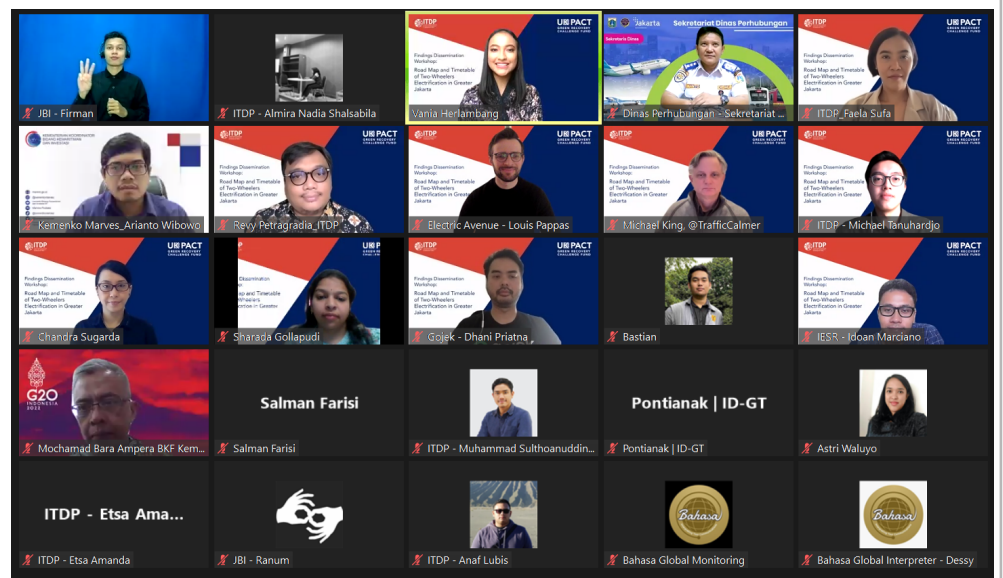
	<b>Breakout Room 1:</b>
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|  | <ul style="list-style-type: none"><li>- Disseminate the Toolkit from electrification to online motorcycle taxis and accommodate input from operators so that they can be considered in the further development of the Toolkit.</li><li>- There are interesting suggestions that this toolkit can be used by the Government in analyzing needs by adjusting certain assumptions.</li></ul> |
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**List of Participants  
(scanned)**

No.	Name	Gender	Special Requirements	Type of Requirements
1	Mizandaru Wicaksono	Male	No	
2	Maria Herdanti	Female	No	
3	Pinto Anugrah	Male	No	
4	Safiera Nadya Utama	Female	No	
5	Adriel Simorangkir	Male	No	
6	Dannif Danusaputro	Male	No	
7	Bayu Sutanto	Male	Yes	Soft File
8	Thimotius Manurung	Male	No	
9	Devano Yehzekiel Adipradhana	Male	No	
10	Almira Nadia Shalsabila	Female	No	
11	Rifqi Khoirul Anam	Male	No	
12	Muhammad Sulthoanuddin Akbar	Male	No	
13	qiuyang lu	Female	No	
14	Etsa Amanda	Female	No	
15	Sharada Gollapudi	Female	Yes	Interpreter equipment
16	Revy Petragradia	Male	No	
17	Anaf Lubis	Male	No	
18	Tatan Rustandi, M. Sc	Male	No	
19	Astri Waluyo	Female	No	
20	Aisyah Natasanthi	Female	No	
21	Muhammad Wira Baskoro	Male	No	
22	Dhani Priatna	Male	No	
23	Louis Pappas	Male	Yes	Interpreter equipment
24	Michael Tanuhardjo	Male	No	
25	Uun Ainurofiq	Male	No	
26	Andrew Daniel	Male	No	
27	Dira Hanifah	Female	No	
28	Vania Herlambang	Female	No	
29	JB I Ranum	Female	Yes	Interpreter equipment
30	JB I - Firman	Male	No	
31	Chandra Sugarda	Female	No	
32	Dessy Maharany	Female	No	
33	Adolf Ronny Harapan Sirait	Male	No	
34	Archicco Guilianno	Male	No	
35	Indra Danudiningrat	Female	Yes	Interpreter equipment
36	Bahasa Global Monitoring	Prefer Not to Say	Yes	Interpreter equipment
37	Idoan Marciano	Male	No	
38	Ahmad Danu Prasetyo	Male	No	
39	M . F . Manti	Male	No	
40	Ruthmedy Jemima	Female	No	
41	Arianto Wibowo	Male	Yes	Soft File
42	Michael King	Male	No	
43	Iwan Herlambang	Male	No	
44	SHANSHAN LI	Female	No	
45	Gonggontua Sitanggang	Male	No	
46	faela sufa	Female	No	
47	Yohana Laurantina	Female	Yes	
48	Presthysa Lestari	Female	No	
49	Ismanto	Male	No	
50	Mochamad Bara Ampera	Male	No	
51	Eva Falyntina	Female	No	
52	Mohammad Yoga Pratama	Male	No	
53	Naufal Faiz	Male	No	
54	Salman Farisi	Male	No	
55	Irfan Ramadhan	Male	No	
56	ahmad charizzaka	Male	No	
57	Teguh Iman	Male	No	
58	Joko Tri Haryanto	Male	Yes	Soft File
59	Solihin Purwantara	Male	No	
60	Staff BPTJ	Male	No	
61	Bima Dwi Haryudi	Male	Yes	Soft File
62	Siti Nurhidayah	Female	No	
63	Hasan Abdullah Ulil Albab	Male	Yes	Soft File
64	Osa Maulwy Kusnanda	Male	No	
65	Tanah Sullivan	Female	No	
66	dhona lailatul qomariah	Female	Yes	
67	Shally Pristine	Female	No	
68	Bidang Angkutan	Prefer Not to Say	Yes	Interpreter equipment
69	ASYIFA UL ROHMAWAN	Male	No	
70	Mahpud Sujai	Male	No	
71	abdul sukroni	Male	No	

## Event Documentations



Zoom Meeting    You are viewing ITDP - Anuf Lubis screen    View Options

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## Peta Jalan dan Fase Pentahapan Elektrifikasi Kendaraan Roda Dua di Jabodetabek

Diseminasi Hasil Studi

Maret 2022

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Findings Dissemination Workshop: Road Map and Timetable of Two-Wheelers Electrification in Greater Jakarta




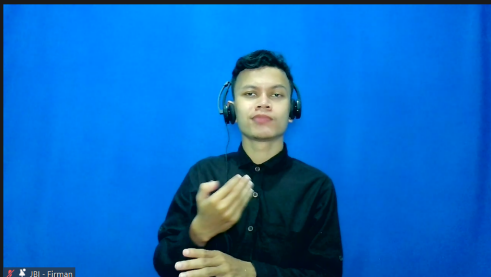
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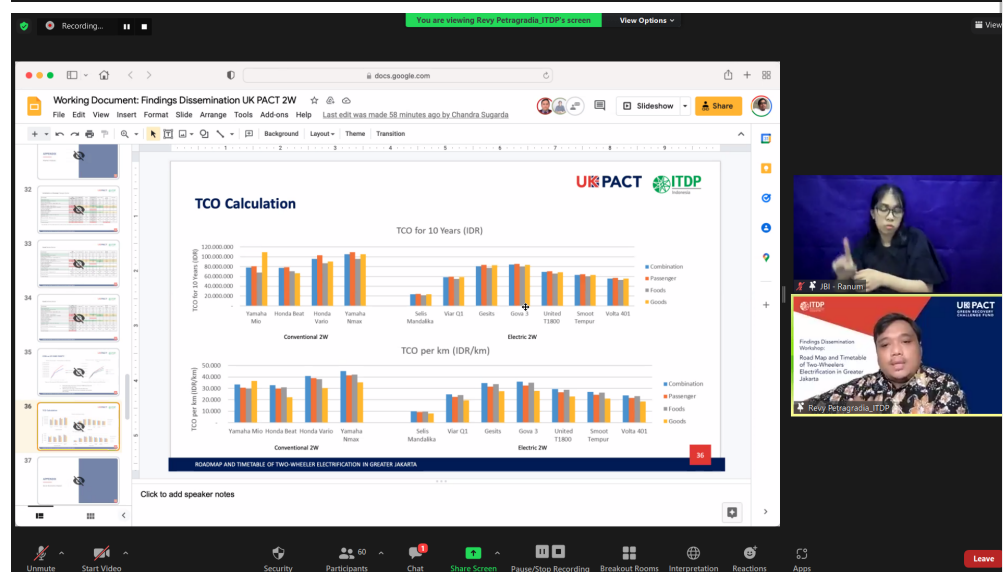
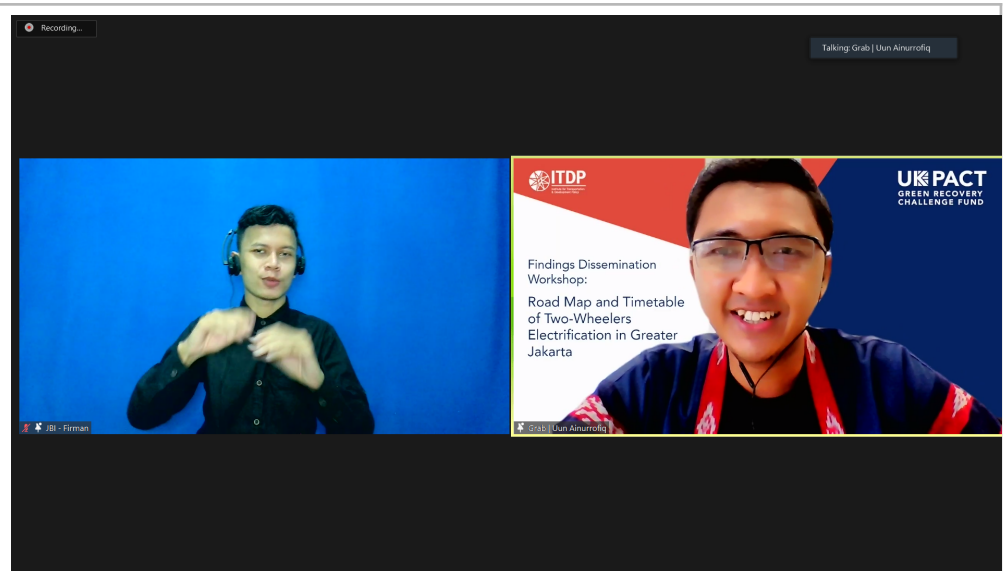
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**Follow-up**

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**Made By**

Almir

**on**

March 29, 2022