RESULTS OF THE ITF CURRENT POLICY SCENARIO FOR ULAANBAATAR

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How did we build the current policy scenario?

In collaboration with Mongolian stakeholders we

- Analyzed current transport policies for Ulaanbaatar

- Reviewed the planned evolution of the transport network in the coming years

- Defined quantified objectives for each policy measure

- **Example:** Light Rail Transit (LRT) network, defined by total length

   - Target for 2030: 39 km

   - Target for 2050: 108 km

Combining the effects of each measure if the target is reached, we projected the CO_2 emissions of the transport sector in Ulaanbaatar between 2015 and 2050

Planned measures

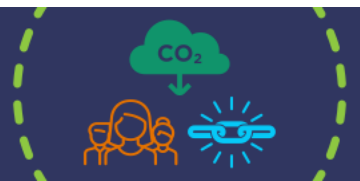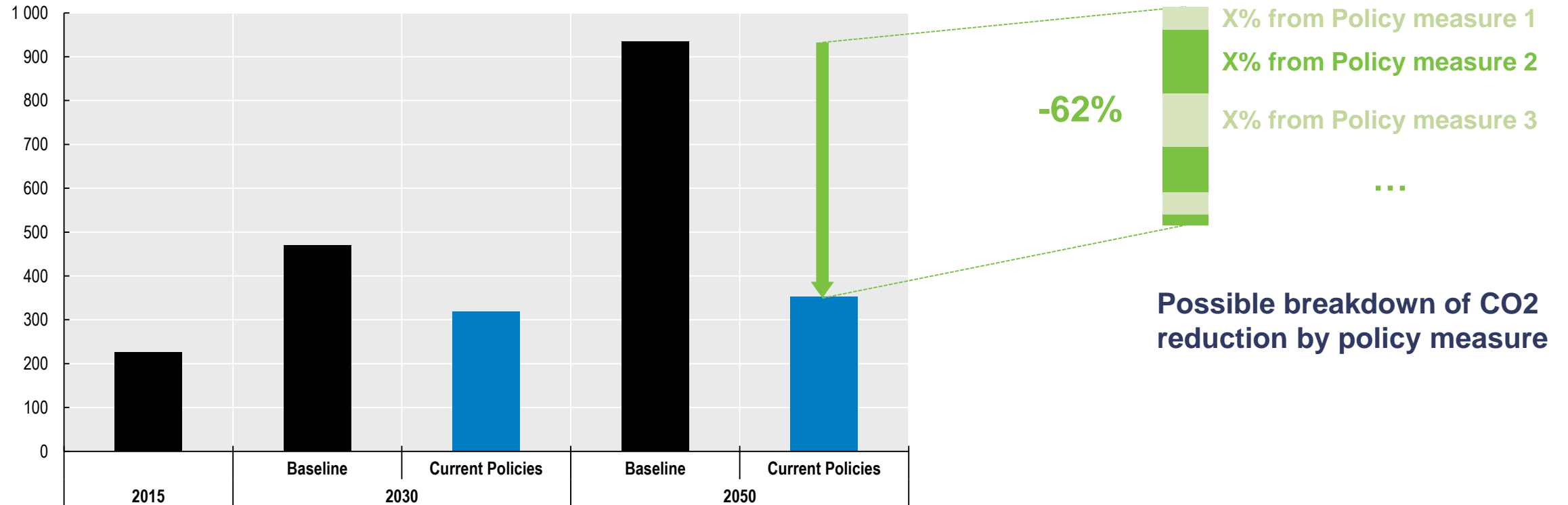| |
|---|
| Massive renewal of the bus fleet and promotion of cleaner technologies for private cars |
| Creation of a LRT network |
| Conversion of the existing rail to urban passenger rail |
| Creation of a cable car system |
| Fare integration, optimisation of the bus network, introduction of bus priority |
| Enhancement of the bike and pedestrian infrastructure |
| Incentives for bike and scooter sharing |
| Private vehicles pricing measures |
| Optimised urban planning |

International Transport Forum

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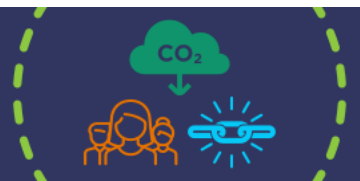
Results of the Current Policy Scenario

Urban mobility CO$_2$ emissions until 2050 by scenario
(thousand tonnes CO$_2$)

-62%

X% from Policy measure 1

X% from Policy measure 2

X% from Policy measure 3

...

Possible breakdown of CO2 reduction by policy measure

Vehicle Technology Development

Scenario metrics

- Percentage of various vehicle technologies in the private vehicle and bus fleet

- **Target:** 16% of electric cars and 70% of electric buses by 2050

Existing plan

- Delivery of 750 electric between 2022-25

Implementation and challenges

- Buses: high cost and technical requirement of electric vehicles

- Private cars: how to favor the uptake of EV in the private fleet?

- Development of charging infrastructure

- Limited efficiency of EVs in a cold climate

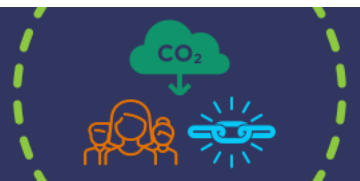## Quantification of the policy measures

Reduction in transport-related CO_2 emission attributed to the measure

By 2030

-18%

By 2050

-37%

Infrastructure Expansion

Scenario metrics

- LRT, rail, cable car, conventional, bike and pedestrian network length infrastructure

- **Target:** 100 km of LRT, 190km of rail, 20km of cable car, 4100 km of bus, 1600 km of bike network by 2050

Existing plan

- Creation of the LRT and cable car systems

- Conversion of the existing rail to urban passenger

- Development of cycling (1600 km) and pedestrian (1400 km) networks

Implementation and challenges

- Costly investments: which mode should be prioritized?

- Diversify financial sources
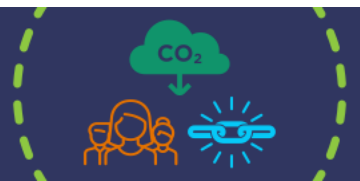
Quantification of the policy measures

Reduction in transport-related CO_2 emission attributed to the measure

By 2030

-9%

By 2050

-16%

Public Transport Promotion

Scenario metrics

- Increase of operating speed, bus network share, average cost of a trip, among others.

- **Target:** 10% increase in speed for bus, 30% of bus network with priority, 30% reduction in cost of trips, among others.

Implementation and challenges

- Creation of a competent Metropolitan Transport Authority (MTA)

- Organisation of the system around a mass transit backbone

Quantification of the policy measures

Reduction in transport-related CO_2 emission attributed to the measure

By 2030

-0%

By 2050

-1%

Shared Transport Promotion

Scenario metrics

- Development of a bike and scooter sharing fleet, promotion of higher occupancy rate per vehicle

- **Target:** 3000 shared bikes and scooter and 10% increase of the number of persons by car by 2050

Implementation and challenges

- Organise the development of bike and scooter sharing to avoid excesses that can appear.

- Develop efficient incentives for maintaining and increasing the average occupancy rate in Ulaanbaatar.

Quantification of the policy measures

Reduction in transport-related CO_2 emission attributed to the measure

By 2030

-3%

By 2050

-7%

Regulatory Measures

Scenario metrics

- Increase in vehicle usage restrictions.

- **Target:** 10% vehicle restricted from circulating and 10% restricted parking space in the city centre

Implementation and challenges

- City-wide reform

- Effective enforcement of regulations

Quantification of the policy measures

Reduction in transport-related CO_2 emission attributed to the measure

By 2030

-1%

By 2050

-1%

Pricing Measures

Scenario metrics

- Increase in vehicle ownership and usage cost.

- **Target for 2050:** 25% increase in vehicle usage costs (excluding fuel) and parking costs. 35% of fuel tax increase and 30% of vehicle purchase tax increase.

Implementation and challenges

- City-wide parking reform

- Acceptance by the population

- Ensuring equity and accessibility

Quantification of the policy measures

Reduction in transport-related CO_2 emission attributed to the measure

By 2030

-1%

By 2050

-3%

Other Measures

Scenario metrics

- Share of population regularly teleworking, increase in diversity of land use and density around public transport network.

- **Target for 2050:** 5% of the active population regularly teleworking in 2050, 15% increase in density around public transport network by 2050

Existing plan

- Ulaanbaatar 2040 Land-use development plans (to be endorsed):

Implementation and challenges

- Develop an integrated transport and land-use master plan

- Mitigate adverse effects of densification

Quantification of the policy measures

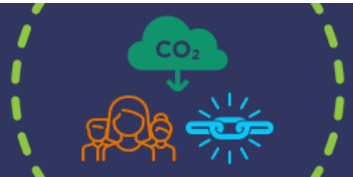Reduction in transport-related CO2 emission attributed to the measure

By 2030

-2%

By 2050

-6%

Policy Measures Quantification Comparison

	Vehicle Technology Development	Infrastructure Expansion	Public Transport Promotion	Shared Transport Promotion	Pricing Measures	Other Measures
By 2030	-18%	-9%	-0%	-3%	-1%	-2%
By 2050	-37%	-16%	-1%	-7%	-3%	-6%

Policy Priorities

- Idea 1
- Idea 2
- Idea 3

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