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Master Plans for National Sustainable Transportation in Korea

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Ministry of Land,
Infrastructure and Transport

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I. Why Revised?

Master Plan I (2011-2020)

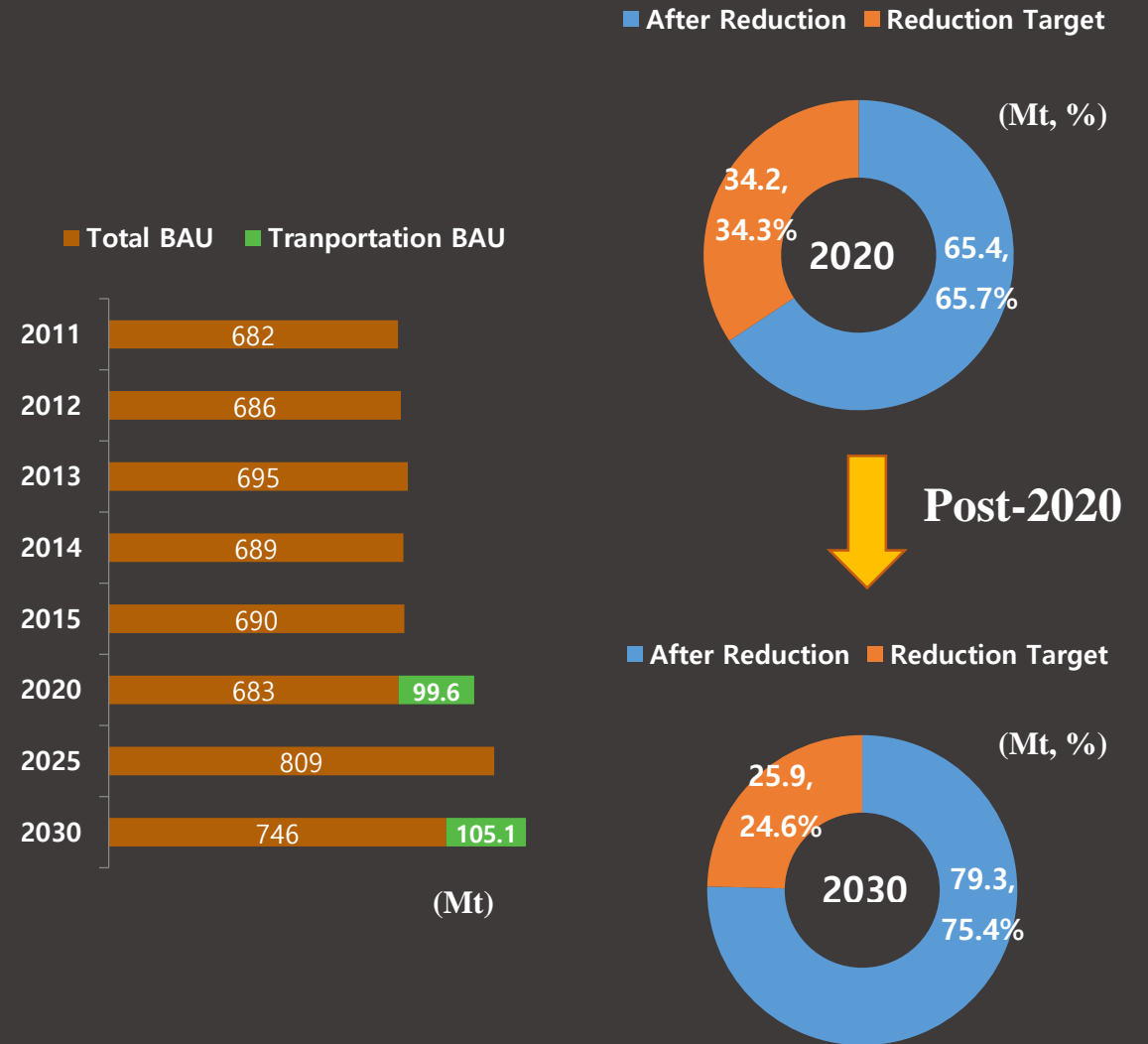
According to the Kyoto Protocol, Korea planned to reduce national GHG emissions by 30%(233 Mt) from 2020 BAU(776Mt) level

- Set transportation reduction target as 34.3% of 2020 BAU level
- To achieve the reduction target, Established Master Plan I for National Sustainable Transportation in 2011

Master Plan II (2018-2020)

Kyoto Protocol was superceded by 2015 Paris Agreement, thus needed to revise the first one, changing to reduce national GHG emissions by 37%(315 Mt) from 2030 BAU(851Mt) level

- Changed the Transportation reduction target to 24.6% of 2030 BAU level
- Re-established strategies to achieve the changed national reduction target



* GHG means GreenHouse Gas

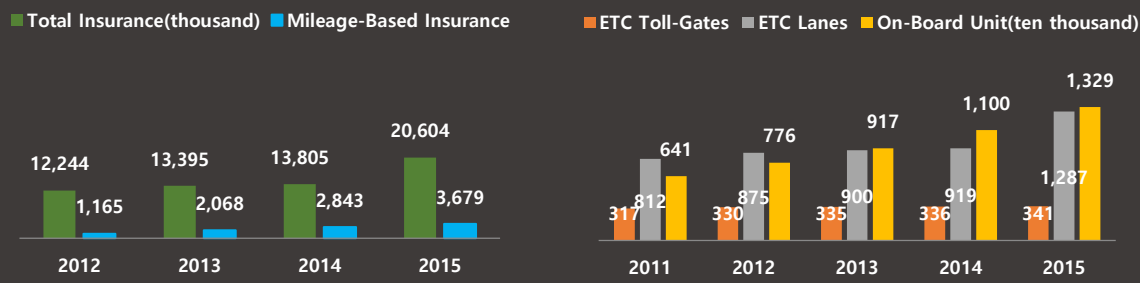
* BAU means Business As Usual

II. What Achieved in Master Plan I?

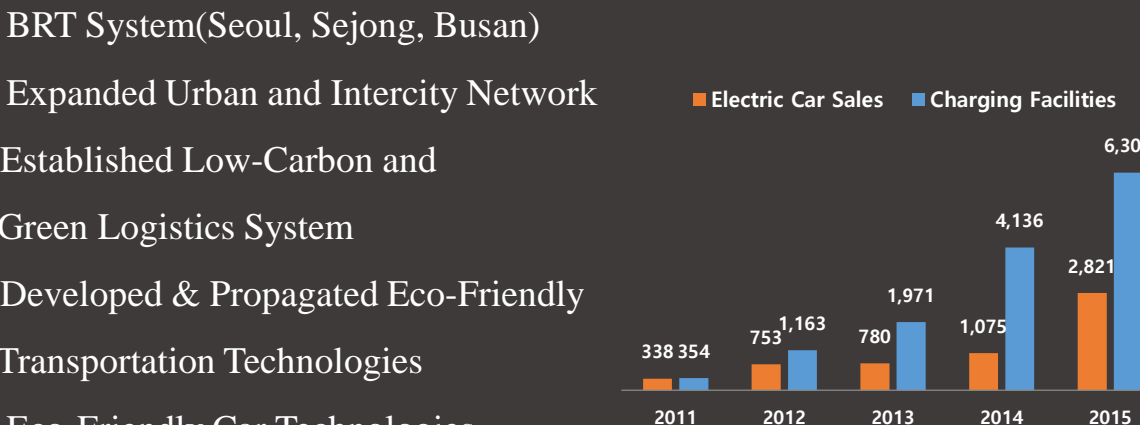
Achievements

Limitations

- reinforced Transportation Demand Management & Efficient Traffic Operation
- . Mileage-Based Insurance
- . Electronic Toll Collection System



- Promoted Bike & Walk
- Expanded P.T. Infrastructure & Improved Service Quality



- . BRT System(Seoul, Sejong, Busan)
- . Expanded Urban and Intercity Network
- Established Low-Carbon and Green Logistics System
- Developed & Propagated Eco-Friendly Transportation Technologies
- . Eco-Friendly Car Technologies

- Too High Transportation Reduction Target Setting
- . 34.3% reduction from 2020 BAU is uncertain as of now
- Hard to estimate transportation GHG emissions due to complex interaction with other fields
- ex) Hard to forecast new rail demand and induced demand
- Included many un-measurable or subjective indicators
- . Hard to evaluate direct effects from subjective policy implementations
- ex) Establishment of economic rail design standards

➔ Necessary to re-examine the reduction target and change the target year 2020 to 2030

- Re-establish strategies with corresponding reduction means

III. What Revised?

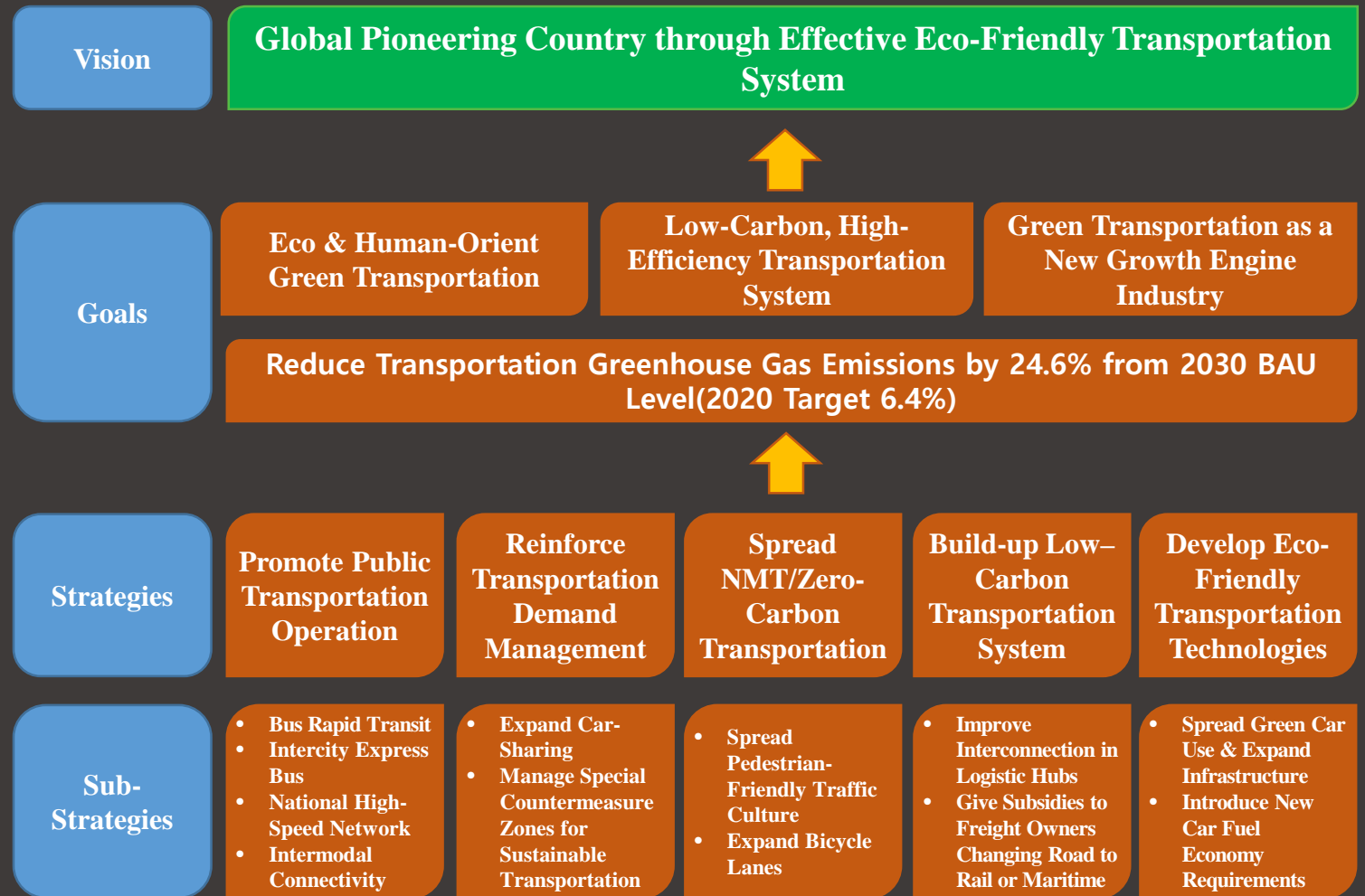
Process of the Revision

- Analyzed achievements & limitations of the first Master Plan
- Examined additional reduction possibility through new reduction strategies
- Estimated budgets and made financing plans for each strategy

New Strategies

Strategies were categorized into 5 items to achieve our vision & goals focusing on P.T., TDM, Eco technologies, etc.

Vision & Goals



* NMT means Non-Motorized Transport

IV. Ways to Promote Public Transportation

Improve Bus Service Quality

Bus Rapid Transit

- Extension to local big cities from Seoul BRT services

FROM	TO	Length	Open
Incheon	Seoul	3.3km	'20
Suwon	Seoul	19.1km	'19
Naesung	Songjeong	14.5km	'18
Naesung	Seomyeon	5.9km	'18



Intercity Express Bus

- Expand intercity express bus
- Integrate land-use and bus planning
- Establish mediating institution b/w local cities
- Expand Seoul Transit Transfer Discount coverage to surrounding cities



New Transit Service

- Premium Express Bus
- Late-Night On-Demand Taxi
- Double-Decker Bus

Year	Region	No. Buses
'15	South Yangju, Kimgpo	3
'16	Suwon	10
'17	Yongin, Pajoo	70
'18	Osan, Guri	50



- MaaS to satisfy people's daily mobility needs with a single service

More Efficient Operating

- Utilize more info. technology
- Expand hwy. exclusive bus lines in Youngdong & Gyeongbu hwy.
- Introduce more express bus transit stops at hwy. rest areas for low demand lines



IV. Ways to Promote Public Transportation

Improve Rail Service Quality

Expand P.T. Network

- Expand urban & intercity network b/w Seoul Metro. & outskirts

	From-To	Length
GTX-A	Ilsan-Seoul	37.4km
GTX-B	Incheon-Namyangjoo	80.1km
GTX-C	Uijeongbu-Geumjeong	47.9km



- Circular railroads among outskirts of Seoul Metropolitan area
- More intercity rails in local big cities

More Express Train Lines

- Introduce more express trains for commuters to shift from cars to rails by reducing travel time
- Expand express trains in southern area of Seoul to northern area

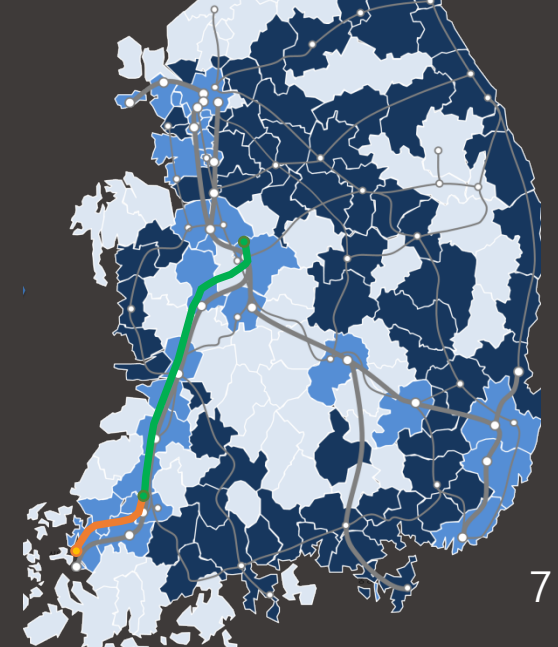


Speed Up of Main Rails

- Speed-up of existing railroads
- Straigten railroads, improve signals
- Introduce more express rails
- Plan 6 express lines that 3 lines were increased in the second master plan
- Speed-up of existing high-speed rails
- From 300km/h → 350km/h through rail facility improvement

More High-Speed Rails

- Plan Honam High-Speed Rail Phase II by speed up of existing railroads & new construction(68.2km, by 2025)
- Speed up Songjeong-Gomakwon Railroad(28.4km) in 2018



THANK
YOU!

