BỘ GIAO THÔNG VẬN TẢI
MINISTRY OF TRANSPORT

IMPLEMENTATION OF NDC FOR TRANSPORT IN VIET NAM

DEPARTMENT OF ENVIRONMENT
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CONTENTS

Part 1

Updated NDC of Viet Nam in 2020

Vietnam's commitment: With domestic resources, by 2030 Vietnam will reduce its total greenhouse gas emissions by 9% compared to the BAU. This contribution can be increased to 27% with international support through bilateral and multilateral cooperation and implementation of new mechanisms under the Paris Agreement on climate change.

GHG inventory in 2014 and BAU to 2030

Unit: MTCO2e

Year	Energy (including transport)	Agriculture	LULUCF	Waste	IP	Total
2014	171.6	89.8	-37.5	21.5	38.6	284.0
2020	347.5	104.5	-35.4	31.3	80.5	528.4
2025	500.7	109.2	-37.9	38.1	116.1	726.2
2030	**678.4**	112.1	-49.2	46.3	140.3	**927.9**

Contribution to GHG emission mitigation in different sectors

Unit: MTCO2e

Sector	Potential of measures to be implemented with domestic resources		Potential of measures to be implemented with international support		Total emission reduction potential	
	Compared to national BAU(%)	Amount reduced (Tr. tCO_2e)	Compared to national BAU(%)	Amount reduced (Tr. tCO_2e)	Compared to national BAU(%)	Amount reduced (Tr. tCO_2e)
Energy (including transport)	**5.5**	**51.5**	**11.2**	**104.3**	**16.7**	**155.8**
Agriculture	0.7	6.8	2.8	25.8	3.5	32.6
LULUCF*	1.0	9.3	1.3	11.9	2.3	21.2
Waste	1.0	9.1	2.6	24.0	3.6	33.1
IP	0.8	7.2	0.1	0.8	0.9	8.0
Total	**9.0**	**83.9**	**18.0**	**166.8**	**27.0**	**250.8**

Source: Vietnam Updated NDC 2020

Updated NDC of Viet Nam in 2020

GHG inventory in 2014 and BAU to 2030

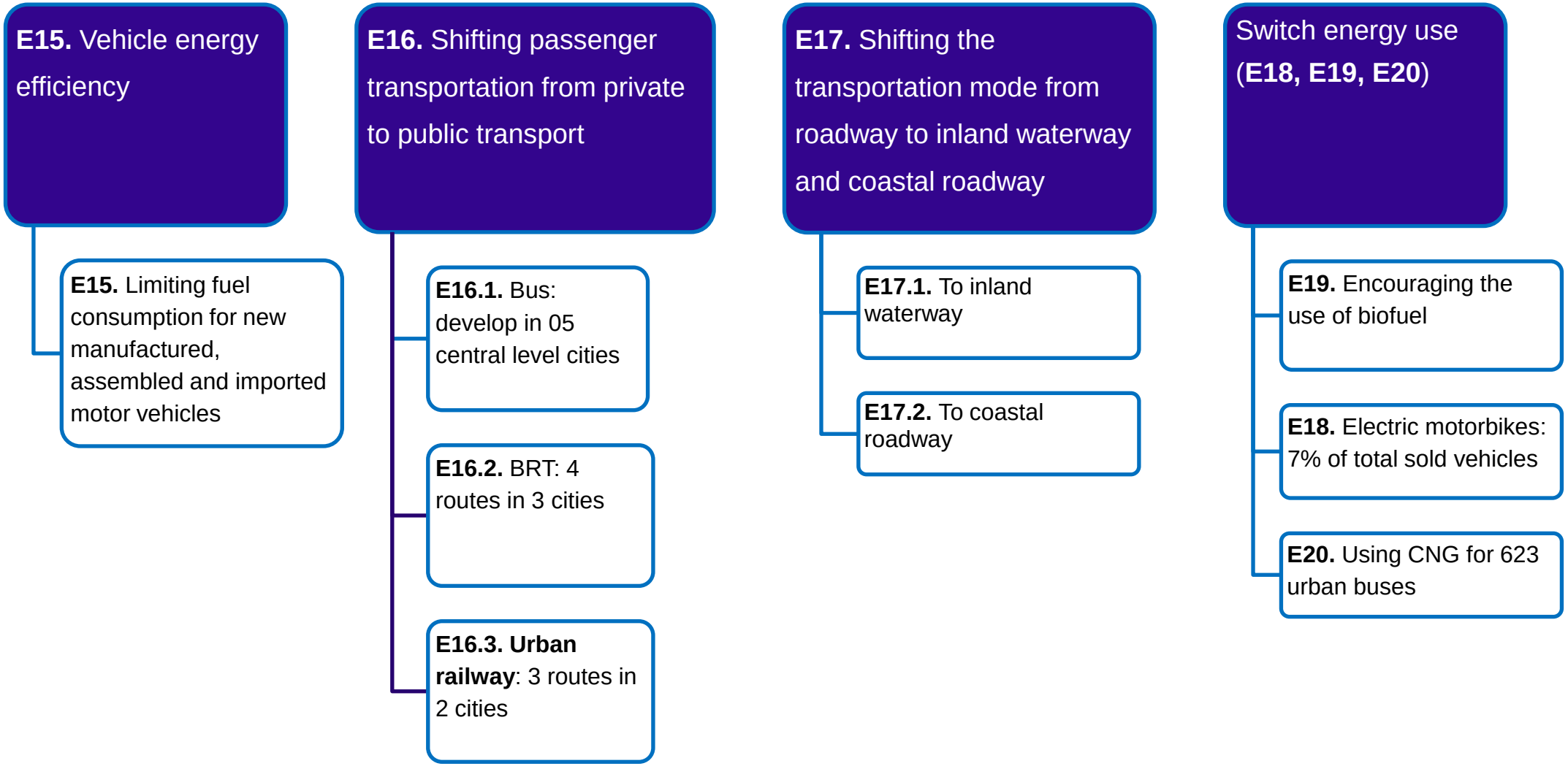
No.	GHG emissions	Year			
		2014*	2020	2025	2030
A	Total national GHG emissions	284	528.4	726.2	927.9
B	Energy sector	171.6	347.5	500.7	678.4
C	Transport	30.5	47	64.3	88.1
	Proportion of GHG emissions in transport/ Total national GHG emissions (C/A)	11%	9%	9%	9%
	Proportion of GHG emissions in transport/ Energy sector (C/B)	18%	14%	13%	13%

Source: Vietnam Updated NDC 2020

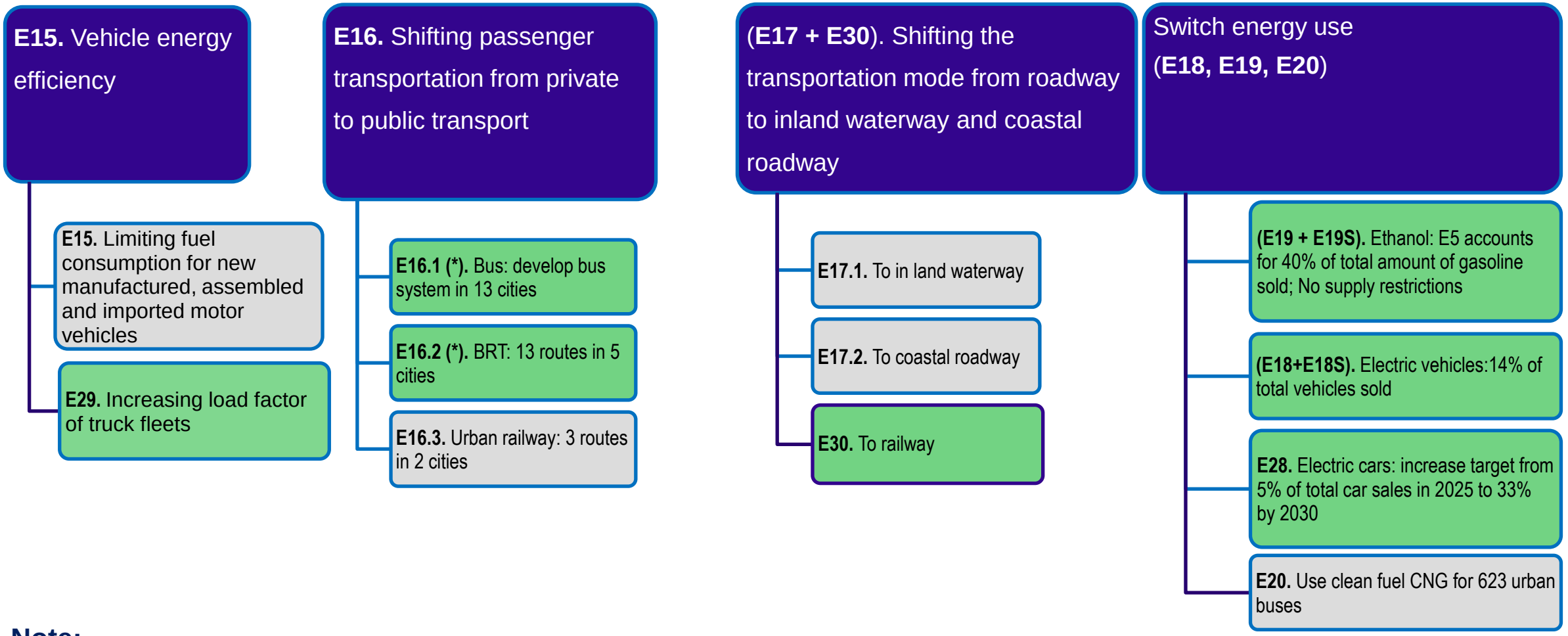
Part 2

Mitigation measures for GHG emissions in transport in NDC and mitigation potential

Scenario 1. Measures in the transport sector to be implemented with domestic resources



Scenario 2. Measures in the transport sector to be implemented with international support



Note:

Measures to be implemented with international support, including:

- E18S, E19S, E28, E29, E30: new additional measures.
- (*): extension of the existing measures in the self-executing country scenario (E16.1, E16.2).

Source: TRACS Project Report

Emissions mitigation of measures in transport sector

Unit: MTCO2e

Scenarios	Measures		Year			
	Code	Tên biện pháp	2015	2020	2025	2030
Scenario 1 (Measures to be implemented with domestic resources)	E15	Fuel economy	0	0	0.6946	5.1301
	E17	Shifting the freight transportation from roadway to inland waterway	0	1.905	2.0592	1.5596
	E18	Using electric motorbikes	0	0.1216	0.3451	0.5801
	E16.1	Developing the bus system	0	0.3696	0.4355	0.3263
	E19	Using bio-gasoline E5	0	0.256	0.269	0.2672
	E16.3	Developing urban railway system	0	0.0229	0.1245	0.1149
	E16.2	Developing BRT system	0.3416	0.0023	0.0066	0.0034
	E20	Using CNG buses	0	0.0047	0.005	0.0026
		Total (reduced in comparison to BAU in transport sector in 2030: 8.96%)	**0.3**	**2.7**	**3.9**	**8.0**
Scenario 2 (Measures to be implemented with international support)	E15	Fuel economy for motor vehicles	0	0	0.686	4.9864
	E28	Shifting to the use of electric cars	0	0	0.0642	1.8856
	E17	Shifting the freight transportation from roadway to inland waterway	0	2.6606	2.759	1.7117
	E18, E18S	Transitioning to the use of electric motorbikes	0	0.3341	0.9456	1.5856
	E29	Improving load factor of truck fleets	0	0	0.8396	1.3179
	E30	Shifting the freight transportation from roadway to railway	0	0	0.4009	1.0293
	E19, E19S	Using bio-gasoline E5	0	0.2791	0.3698	0.4894
	E16.1 (*)	Developing the bus system	0.3599	0.3893	0.4545	0.3473
	E16.3	Developing the urban railway system	0	0.0229	0.1243	0.115
	E16.2 (*)	Developing BRT + electric BRT systems	0	0.0025	0.0345	0.0527
	E20	Using CNG buses	0	00046	0.005	0.0026
		Total (reduced in comparison to BAU in transport sector in 2030: 15.17%)	**0.4**	**3.7**	**6.7**	**13.5**

Source: TRACS Project Report

Part 3

NDC implementation in transport sector and measurement, reporting, verification (MRV)

3a NDC implementation in transport sector

Measure E19 – Encouraging the use of bio-fuels

Results:

- Achieve target in 2018: Gasoline E5 accounted for 40% of the total sold gasoline (the actual proportion was 42%)
- From 2019: Consumption of gasoline E5 reduced to 38%, lower than the target of 40% in line with the scenario

Target	2018		2019-2030	
	Target by scenario 1	Reality	Target by scenario 1	Reality
Share of gasoline E5 compared to the total gasoline sold (%)	40	42		
Annual source of Ethanol (and the need for use in transport does not exceed this number), m3/year			145000	…

Causes:

- Insufficient institutional arrangement to create competitiveness in price compared to mineral petrol.
- There is a lack of stable material sources/areas.
- Market remains concerned about the impacts of biofuel on engine.

3a NDC implementation in transport sector

Measure E20 – Encouraging the use of CNG buses

Assessment:

- Potential measure for GHG mitigation in transport sector.

Year	Number of CNG buses	Target by Scenario 1 (domestic resources)	
		Number of CNG buses	Assessment
2014	96		According to Scenario 1, by 2030 Viet Nam will have put 623 CNG buses into operation. However, by 2019, the number of CNG buses had been 658. Surpassing the set target.
2015	108		
2016	238		
2017	425		
2018	528		
2019	**658**		
2020	**672**		
2021	**708**		
…			
2030		**623**	

3a NDC implementation in transport sector

Measure E18. Using electric motorbikes

Results:

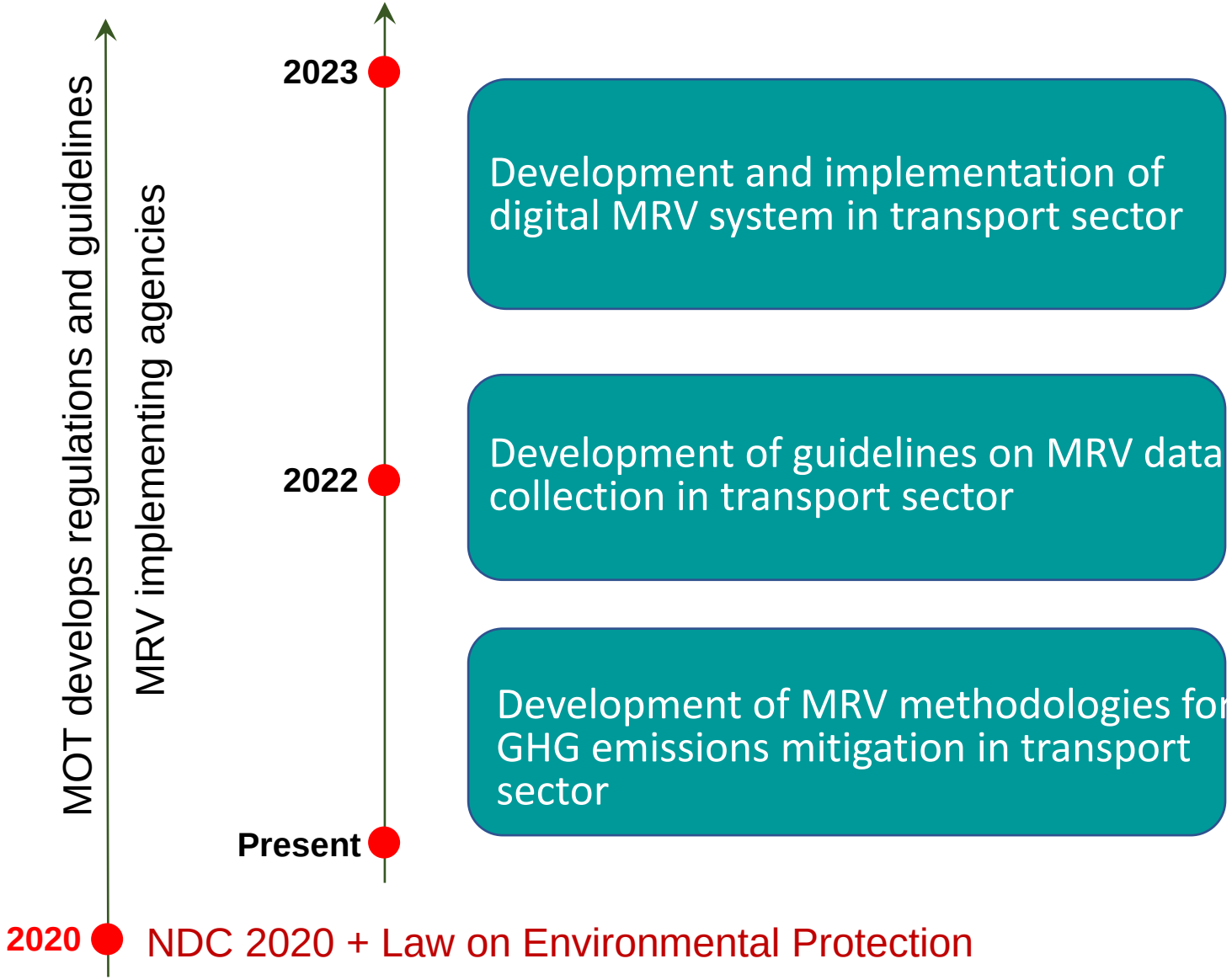
- The 2019 and 2020 witnessed the drastic increase in the number of sold electric motorbikes.
- In 2020: the proportion of electric motorbikes reached 8.2% of the total sold motorbikes (surpassing the target of 7%).

Positive factors:

- There has been a significantly growth in the number of electric motorcycles sold to the market, especially since 2018.
- Electric motorcycles are mainly produced domestically.

Year	Share of electric motorbikes in total sold motorbikes	Target by scenario 1 (domestic resources)	
		Share of electric motorbikes in total sold motorbikes	Assessment
2019	4.8%		Met the target
2020	**8.20%**		
…			
2030		**7%**	

3b Measurement, reporting and verification (MRV) system



Development and implementation of digital MRV system in transport sector

- Online MRV system.

Development of guidelines on MRV data collection in transport sector

- Statistics
- Data collected from 5 sub-sectors (road, railway, aviation, maritime and inland waterway transport)
- Data from enterprises

Development of MRV methodologies for GHG emissions mitigation in transport sector

- IPCC 2006 guidelines on national GHG inventory.
- Additional new methodologies.

CONCLUSION

1. Viet Nam had completed the update of its Nationally Determined Contribution (NDC) and is one of the 20 earliest countries to submit this Report to the Secretariat of the United Nations Framework Convention on Climate Change. (NDC 2020 updating NDC 2015).
2. The transport sector has developed mitigation measures for implementation to contribute to the Viet Nam updated NDC.
3. Through the assessment, basically, the measures proposed in the NDC are appropriate and positive; a number of solutions have yielded good results, reaching and surpassing the goals; some solutions have not yet hit the goals of the current period but remained potential in the coming period. The transport sector continues to review and evaluate solutions to make appropriate adjustments and updates
4. The MOT has been developing a MRV system to control the implementation of mitigation measures in the transport sector committed in the NDC of Viet Nam.
5. It is necessary to be willing to share lessons learned and appreciate the effective coordination and cooperation of the parties.

THANK YOU FOR YOUR ATTENTION !