



Bangkok Metropolitan Administration's Initiative Zero Carbon

20th January 2022

Woranuch Suaykakaow

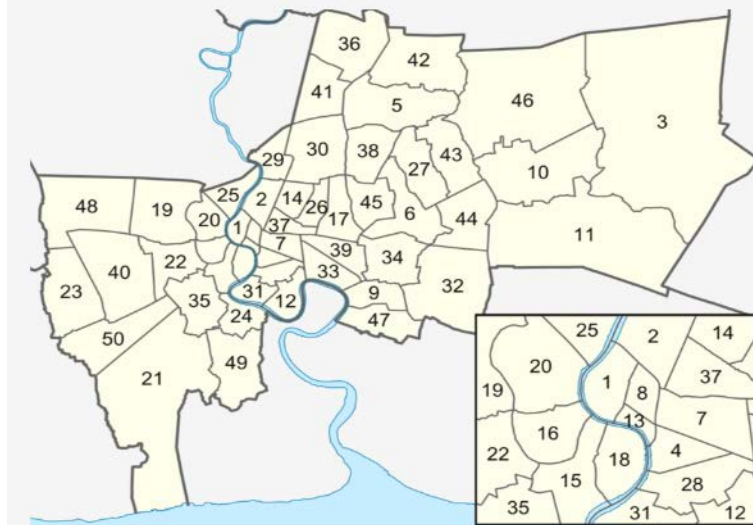
Deputy Director General of Department of Environment, BMA



Overview of Bangkok

- Bangkok is the biggest commercial and economic center of Thailand.
- The population is about 8 million.

Area	1,569 km ²
Administration	Special administrative areas covering 50 districts
Registered Population	5,588,222 (2020)
Non-registered Population	~ 2,400,000 (2019)
Density	3,562 /km ² (2020)
GPP per capita	637,397 Baht/year (2019)



List of 50 districts governed by Bangkok Metropolitan Administration

- | | |
|----------------------------------|-----------------------------|
| 1. Phra Nakhon District | 26. Din Daeng District |
| 2. Dusit District | 27. Bueng Kum District |
| 3. Nong Chok District | 28. Sathon District |
| 4. Bang Rak District | 29. Bang Sue District |
| 5. Bang Khen District | 30. Chatuchak District |
| 6. Bang Kapi District | 31. Bang Kho Laem District |
| 7. Pathum Wan District | 32. Prawet District |
| 8. Pom Prap Sattru Phai District | 33. Khlong Toei District |
| 9. Phra Khanong District | 34. Suan Luang District |
| 10. Min Buri District | 35. Chom Thong District |
| 11. Lat Krabang District | 36. Don Mueang District |
| 12. Yan Nawa District | 37. Ratchathewi District |
| 13. Samphanthawong District | 38. Lat Phrao District |
| 14. Phaya Thai District | 39. Wattana District |
| 15. Thon Buri District | 40. Bang Khae District |
| 16. Bangkok Yai District | 41. Lak Si District |
| 17. Huai Khwang District | 42. Sai Mai District |
| 18. Khlong San District | 43. Khan Na Yao District |
| 19. Taling Chan District | 44. Saphan Sung District |
| 20. Bangkok Noi District | 45. Wang Thonglang District |
| 21. Bang Khun Thian District | 46. Khlong Sam Wa District |
| 22. Phasi Charoen District | 47. Bang Na District |
| 23. Nong Khaem District | 48. Thawi Watthana District |
| 24. Rat Burana District | 49. Thung Khru District |
| 25. Bang Phlat District | 50. Bang Bon District |



Bangkok City Hall, Din Daeng

History of climate change efforts in Bangkok



20-Year Bangkok Development Plan

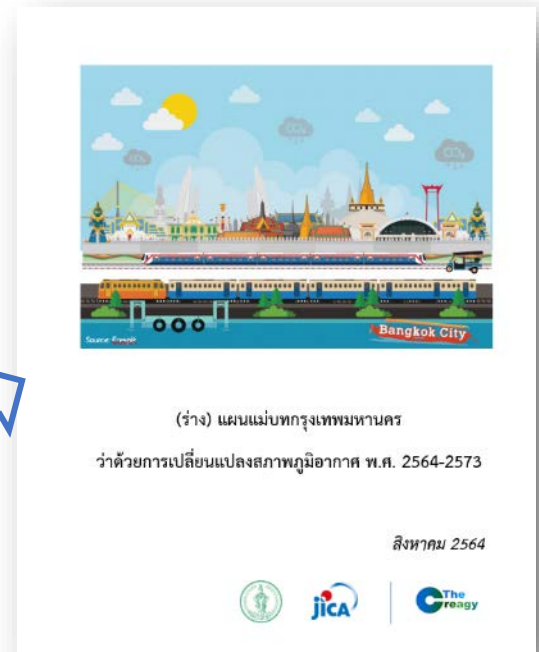


Action Plan on Global Warming Mitigation (2007-2012)



The Bangkok Master Plan on Climate Change 2013-2023

In cooperation with

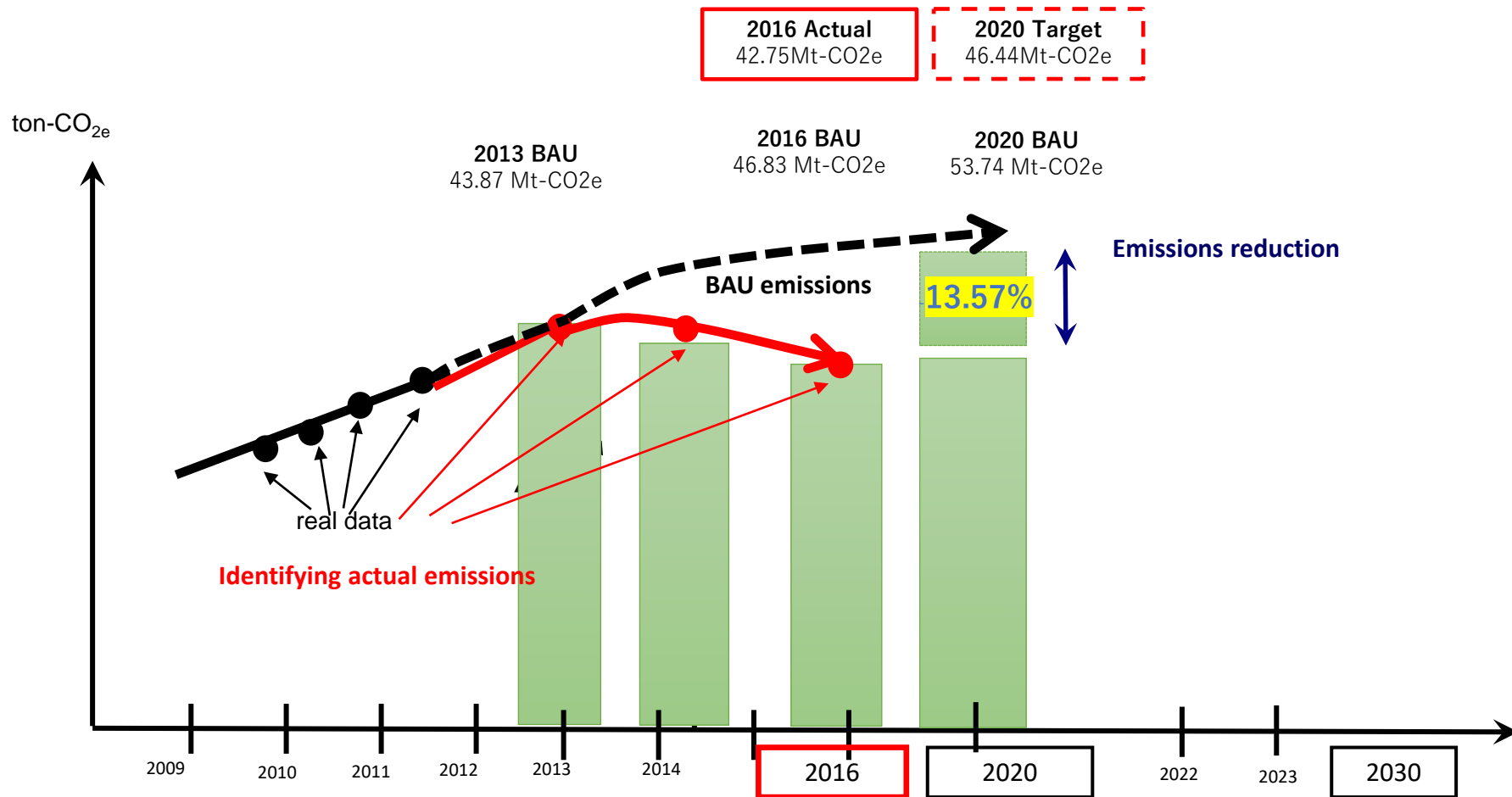


New Master Plan 2021-2030

Comprehensive Review of the Bangkok Master Plan on Climate Change 2013-2023

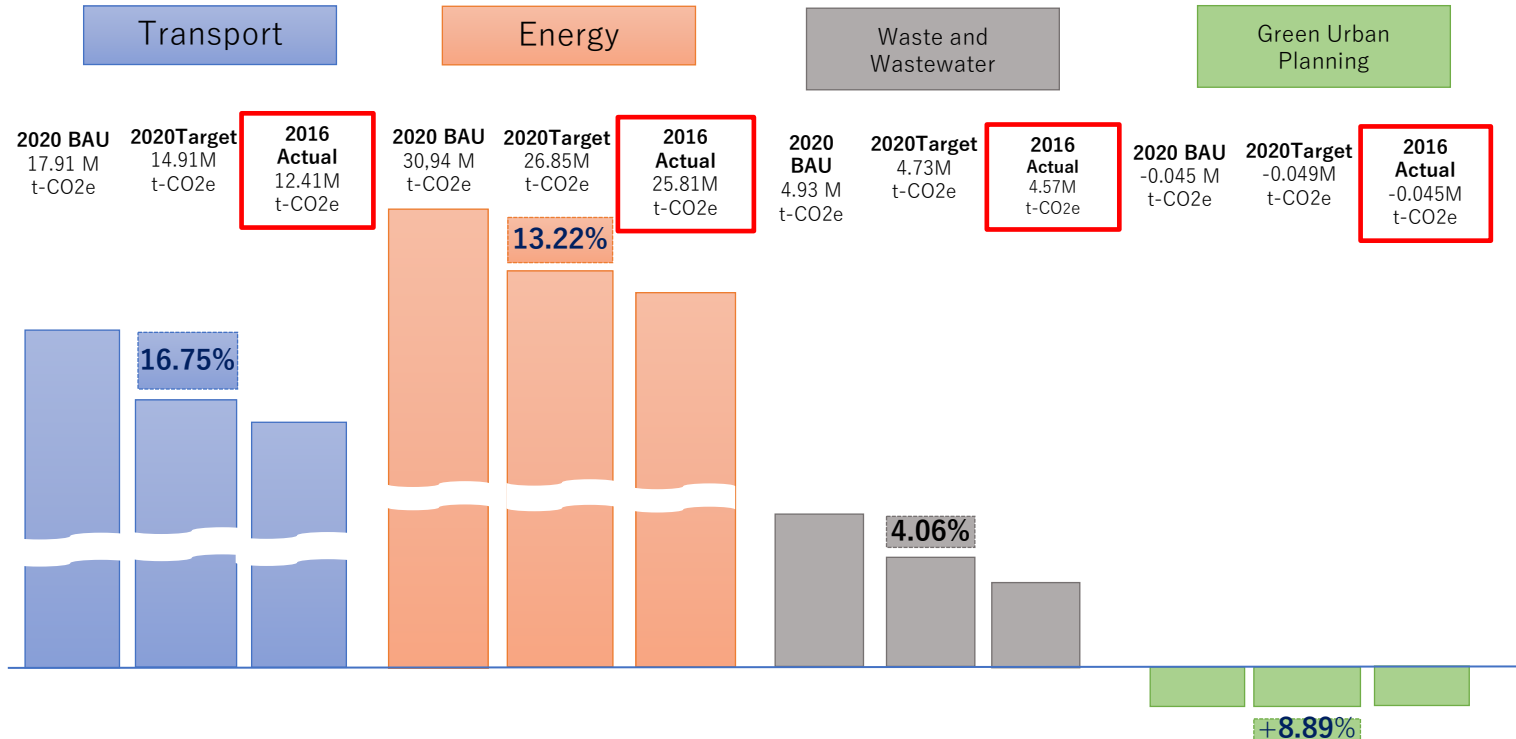
Current MP: BAU and GHG emission targets

Bangkok Master Plan on Climate Change 2013-2023



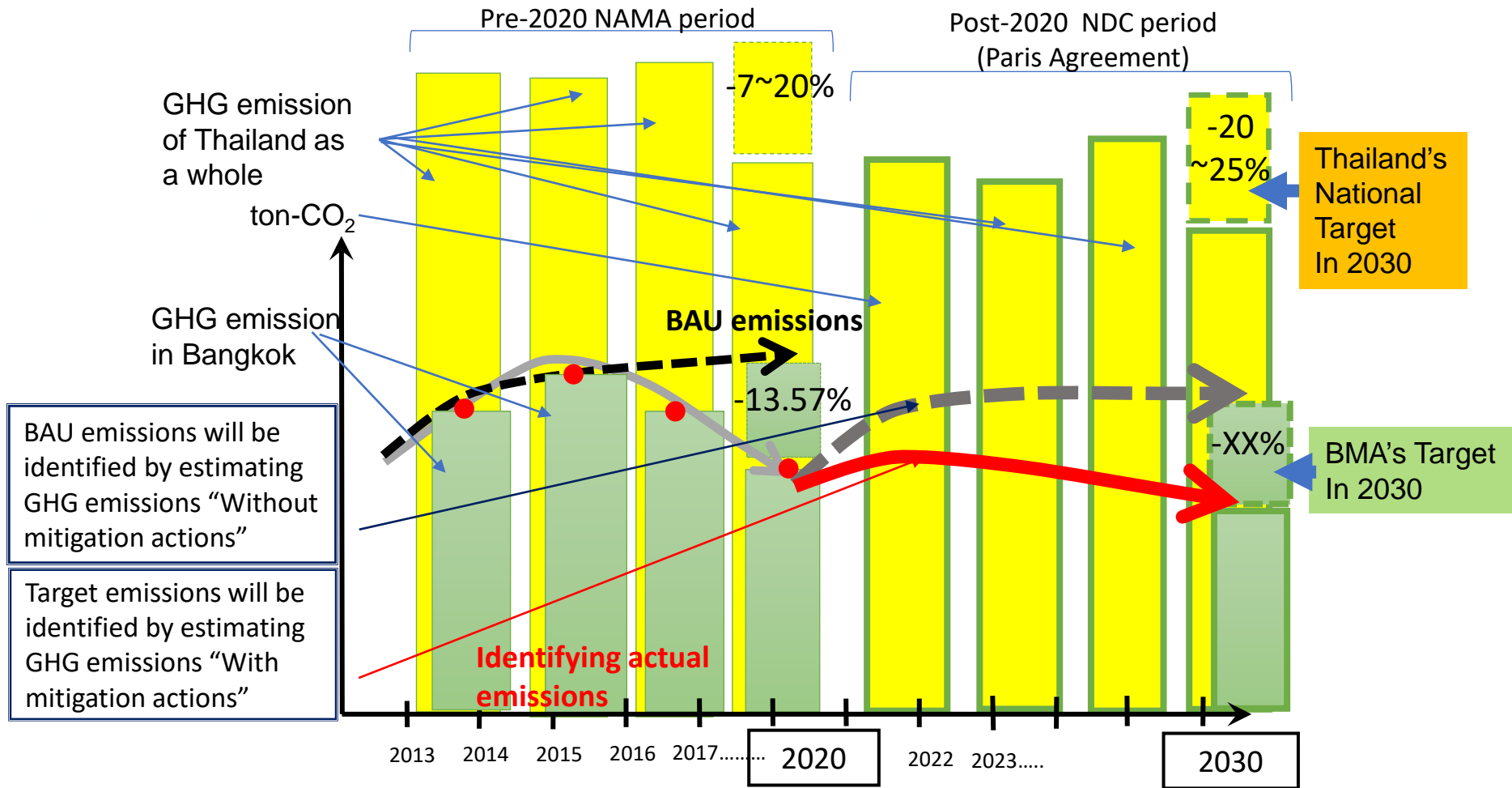
Current MP: GHG emission sectoral targets

Bangkok Master Plan on Climate Change 2013-2023



- Greenhouse gas emissions are particularly high in the transport and energy sectors.
- Efficient use of energy and promotion of railway use are important factors in achieving a significant reduction in emissions.

New target and Master Plan at 2030



An existing gap and emerging needs for a new Master Plan and directions decided for filling the gap

Direction of The Thailand Government

At COP26, the Thai government announced

➤ Thailand NDC will be 40% by 2030

➤ **Carbon neutrality by 2050**

➤ **Net Zero GHG Emission by 2065.**

2050
50% share of renewable electricity generation of new power generation capacity

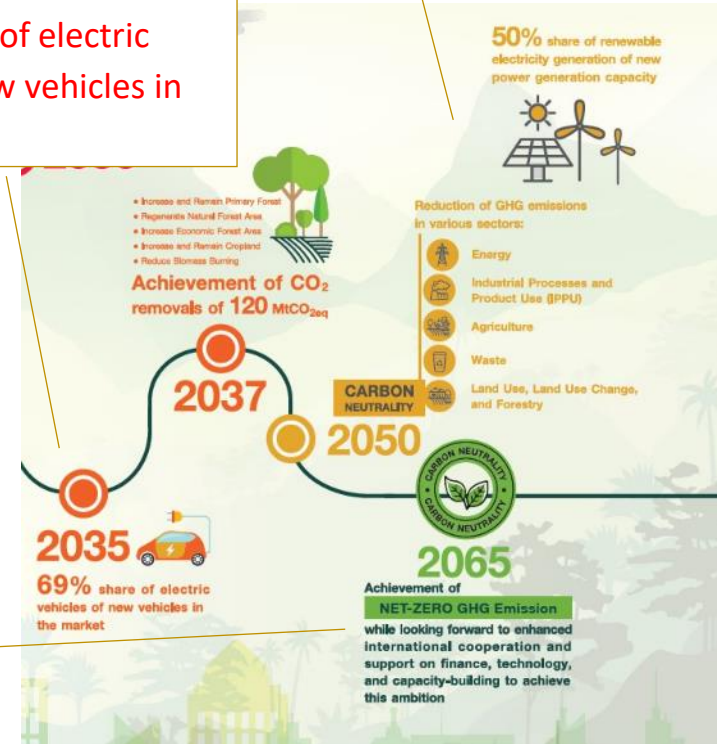
COP26



Thailand NDC will be 40% by 2030
Carbon neutrality by 2050
Net GHG emissions by 2065



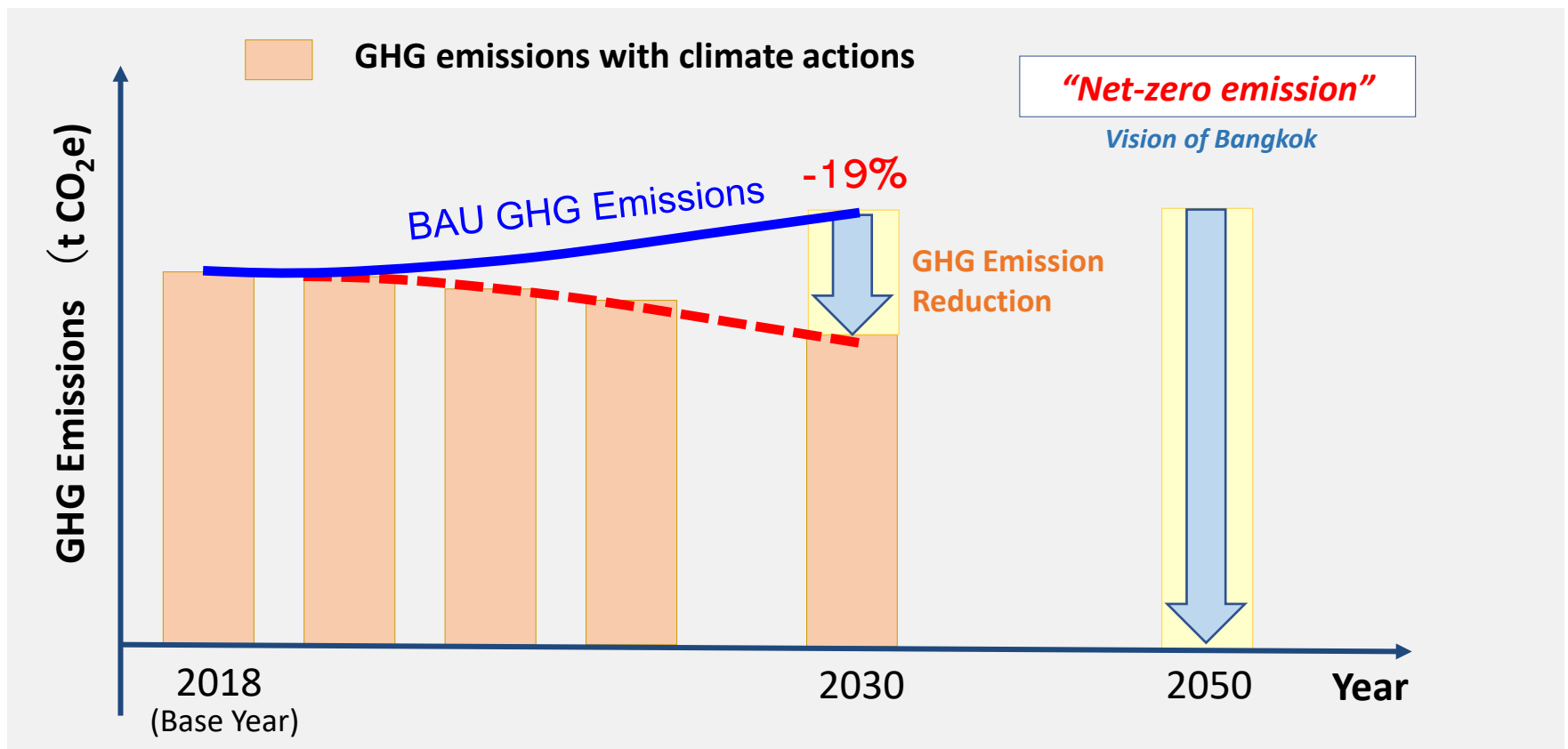
2035
69% share of electric vehicles of new vehicles in the market



2065
Net-ZERO GHG Emission
while looking forward to enhanced International cooperation and support on finance, technology, and capacity-building to achieves this ambition

The Bangkok New Master Plan on Climate Change

2030: “Bangkok moves toward a green, livable and climate-resilient city, under the citywide collaboration for sustainable development.”



Mitigation

GHG Mitigation Measures

- 19% reduction compare to BAU from the base year of 2018 by 2030
- Measure selection and Prioritization
Methodology using 6 criterias (Amount of GHG emission Reduction/Absorption, Co-benefits, Contribution to higher policy, Feasibilities, Input of stakeholders, and Public awareness)
- 4 sectors ; Transport, Energy, Waste&Wastewater, and Green Urban Planning



Mitigation

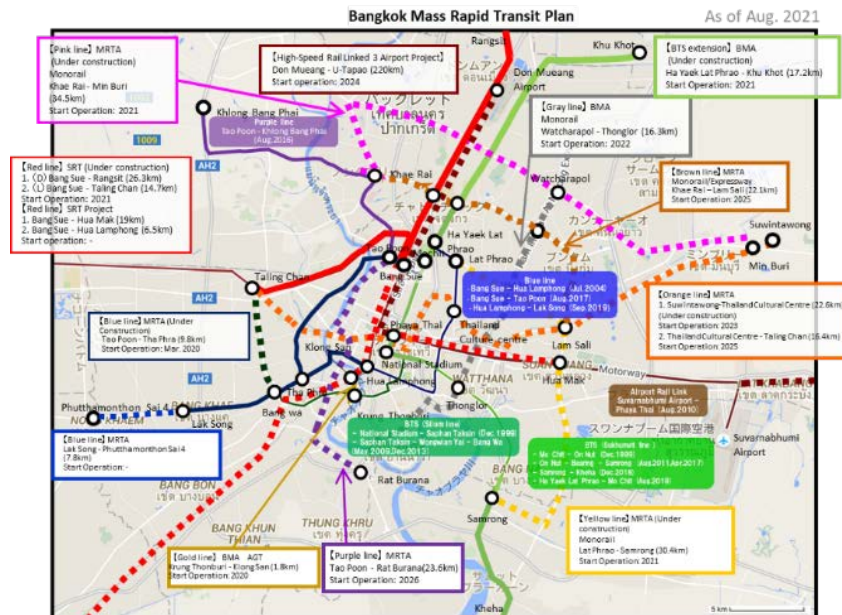
Main GHG Reduction

- 28% from Transport sector and 16% from Energy sector
- 6 main Transport measures: Public transportation (Infrastructure and supporting measure), Motor vehicles, Non-motorized transportation, Traffic Volume Flow Control and Public awareness raising)
- 2 main Energy measures: Energy Efficiency and Renewable Energy



Recently opened railway line

- Pink line: Trial run started in December 2021 and officially opened in January 2022 (Total Length: 34.5 km.)
- Red Line: Opened in November 2021 (Total length 41.3km, JICA support),
- Gold Line: Opened in January 2021 (Total length 1.7 km)



Solar power boat cruising along Klong Phadung Krung Kasem

Adaptation

Impact and Adaptation Measure

- The impact of climate change is also serious in Bangkok.
- Inundation occurs more frequently in the city due to heavy rain in a shorter time than ever before.
- It is necessary to deal with phenomena such as floods caused by heavy rains during the monsoon season that occurred in 2011.



Main Project Activities for Water Resource Management

- Construction of flood prevention structure along.
- Construction of drainage system in the main road and tunnels.
- Canals Improvement and development project.
- Development of proactive water management system.



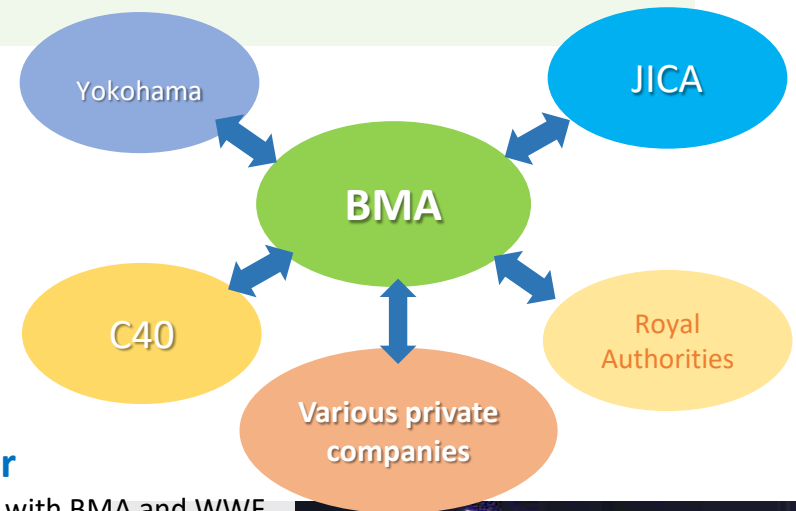
Cooperation with various stakeholders

- Bangkok is working with various stakeholders to promote climate change policy.
- For example, conducting a large-scale earth hour in cooperation with WWF.
- Private sectors and BMA have signed MOU on environmental activities.
- Based on this MOU, BMA is expanding the content of participating companies and their efforts.



Environment Day

The support from many companies was obtained and high environmental awareness was confirmed.



Earth hour

In cooperation with BMA and WWF, many private sectors participated in the 'lights down' event.



Intercity cooperation

BMA and Yokohama are cooperating to discuss various activities toward the realization of the New Master Plan developed with the support of JICA.



Thank you

