Technology Fact Sheet

Bus rapid transit (BRT)[i]

1) Technology status

In general, BRT can fit into the current urban and transportation systems in developed and developing countries. BRT is competitive and more advantageous than subways or overhead railways, as its capital costs are low, but it requires a separate right-of-way.

Brazil is the first country in the world using BRT back in 1970s, with current volume of 70% of frequent bus commuters.

To date, BRT have proved to adequately meet the market demand. It has been successfully applied in many countries and is a potential technology for world's urban cities.

2) Social, economic and environmental benefits

BRT contributes significantly to sustainable urban transportation development. It is an more effective transport system than conventional bus transport thanks to its high volume and fast speed, and helps to change public transport behaviors. Moreover, it can contribute to sustainable development by:

- Reducing environmental pollution.
- Reducing GHG emissions.
- Minimizing traffic congestion.
- Securing energy security due to reduction in oil imports.
- High-quality transportation system which help to enhance life quality and socio-economic development.

As noted by the World Bank, by using 20 systems of BRT and other supporting measures, Mexico can reduce 2 million tones of CO_2 each year.

3) Application potential

BRT is system of transportation using an own line and transporting in high volume, fast speed. This technology is frequently used in developed countries and can encourage moving from private vehicles to public transport to reduce traffic congestion, air pollution. BRT is suitable to all people.

As traffic congestion has become a serious issue in Hanoi and Ho Chi Minh City, BRT is a feasible measure due to lower capital costs than subway and shorter construction time. Urban planners only have to study and rearrange the transport system in the city, reserve right-of-way passages for BRT in big streets, build bus stops for BRT. At the moment, Hanoi and Ho Chi Minh City is preparing for piloting BRT in several roads which will be expanded later.

4) GHG emission reduction potential

Vietnam has a high potential to develop BRT in big cities, especially in Hanoi and Ho Chi Minh City, where traffic jams occur regularly. BRT is already under consideration for implementation.

By 2030, if there are 30 BRT routes in operation, 3 million tones of CO_2 can be reduced (according to Mexico example).

5) Barriers

- High capital costs for building own line for BRT.
- Limited community awareness on BRT and its social, economic and environmental benefits.
- Lack of management and planning experience, making it difficult to define BRT routes during the planning phase.

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[i] **This fact sheet has been extracted from TNA Report - Mitigation for Vietnam. You can access the complete report from the TNA project website http://tech-action.org/**