

Technology Fact Sheet for Mitigation

Technology	Description	Benefits	Challenges
Bus Rapid Transit systems ⁱ	A bus rapid transit system (BRT) is a high-capacity transport system with its own right of way, and can be described as being a systematic combination of infrastructure (busways, stations, terminals) with organized operations and intelligent technologies to provide a higher quality experience than possible with traditional bus operation. To be most effective, BRT systems (like other transport initiatives) should be part of a comprehensive strategy that includes increasing vehicle and fuel taxes, strict land-use controls, limits and higher fees on parking, and integrating transit systems into a broader package of mobility for all types of travellers. Estimates for investment cost for BRT systems vary widely. Depending on the required capacity, urban context and complexity of the project, BRT systems can be delivered for \$ 1 - 15 million per km, with most existing BRTs in developing countries in the lower part of this range. These figures are substantially lower than those for rail-based systems, which cost approximately \$ 50 million per km.	BRTs can make an important contribution to a sustainable urban transport system. It is more energy efficient than conventional bus systems per person-kilometre due to the higher speeds and higher capacity buses. Also it may improve the modal split towards more use of public transport. Thereby it contributes to the following aspects of sustainable development; (i) reduction of air pollution, (ii) reduction of GHG emissions, (iii) congestion reduction, (iv) increase in energy supply security, due to reduction for imported oil, (v) social equality and poverty reduction by providing affordable high-quality transport, (vi) economic prosperity by reducing travel times and congestion	BRT has the following challenges that the following should be taken into account: (i) Public acceptance of the BRT and awareness of the diverse benefits (social, environmental, etc) (ii) Appropriate consideration of non-technical aspects (iii) Careful planning, for example in order to avoid bus overcrowding during peak periods. (iv) Possible resistance by existing bus operators, with negative consequences on the initial implementation. (v) Transparency and good practices in all steps of the project in order to avoid any risk of money misuse and political tensions (vi) Appropriate fare collection systems (vii) Good pavement maintenance

ⁱ This fact sheet has been extracted from TNA Report – Technology Needs Assessment and Technology Action Plans For Climate Change Mitigation– Zambia. You can access the complete report from the TNA project website <http://tech-action.org/>