

TECHNOLOGY FACTSHEET

ROADSIDE TREE PLANTING AND IMPROVING THE OVERALL ROADSIDE VEGETATION¹

1. **Sector:** Transport
2. **Introduction:** Transport sector is a major GHG emitting sector in Sri Lanka. About 60% of the air pollution (especially in Colombo City) comes from this sector (AirMAC, 2009). The main way of transportation is through the road network, which is supplemented by rail, air, and water transport means. Out of passenger transport, buses carry about 50% and railways carry about 4% of the passengers, while the rest of the passengers are carried by the other modes (Jayaweera, 2011). Road transport accounts for about 96% of passenger transportation and 99% of freight transportation (Jayaweera, 2011). Currently, the transport sector in Sri Lanka utilizes petroleum-based fossil fuels, leading to significant amounts of CO₂ and other GHG emissions (e.g. N₂O, CH₄) considered under the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol. Technology transfer, defined as the flow of experience, know-how and equipment between and within countries, is one of the priorities under the United Nations Framework Convention on Climate Change (UNFCCC). Technology needs assessment (TNA) is a key element of the technology transfer, and is carried out with the intention of moving towards cleaner, less GHG emitting technologies.
3. **Technology name:** Roadside tree planting and improving the overall roadside vegetation
4. **Technology characteristics:** Planting trees and/or proper establishment of shrubs and grasses can improve the protection of roads from unnecessary eroding and runoff. However, a minimum clear zone of 10 feet from the road edge is suggested for avoiding any road accidents. Planting trees will also help sequester carbon, reducing the net emission due to fossil fuel burning in road transportation.
5. **Country specific/ applicability:** Applicable island wide.
6. **Status of the technology in the country and its future market potential:** Currently some parts of the country already have well established tree planting, and expanding it to the other potential parts of the country can increase the beauty and scenic view, while protecting the roads and the immediate neighboring areas.
7. **Barriers:** -
8. **Benefits**
 - a. Socioeconomic:
 - Low cost of implementation.
 - Enhanced scenic view, while protecting the environment.

¹ This fact sheet has been extracted from TNA Report – Mitigation for Sri Lanka. You can access the complete report from the TNA project website <http://tech-action.org/>

b. Environmental

- Roadside vegetation minimizes the net CO₂ emission from roads and transportation, by sequestering part of the emissions due to fossil fuel burnt in transportation.

9. Operations: -

10. Costs: Low cost option.

11. References

- AirMAC 2009. Clean Air 2015. Air Resource Management Center. Ministry of Environment & Natural Resources, Sri Lanka
- Jayaweera, D.S. 2011. Analysis on effectiveness of fiscal strategies introduced on hybrid vehicles and market response- policy reforms on clean air. Presentation at the Center for Science and Environment Conference, India, held on September 28-29,2011