

Air and Noise Pollution Mitigation Efforts in the City of Colombo, Sri Lanka

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Air Pollution Mitigation

Urbanization and industrialization are the main causes of air pollution, a problem that has been affecting most of countries in the world for a long period of time. In Sri Lanka too, the rapid growth of cities together with associated industries, transport system etc. the air pollution is on an increasing trend, especially in the commercial areas of the main cities.

Colombo is the main commercial and most important business center of Sri Lanka and as a consequence, many people are attracted and highest numbers of vehicles are drawn into the city daily. Hence environmental load of vehicle emissions are gradually increasing. In the recent past it is recognized as one of the most important environmental issues in Colombo that has drawn the attention of environmentalists, administrators, and policymakers. Various studies undertaken by regulatory agencies and researchers clearly indicate that inefficient combustion of petroleum in motor vehicles is the primary cause of growing air pollution in Colombo. Lack of information on economic and environmental costs of vehicle emission and its mitigation and prevention have inhibited public response and enforcement, and impeded the implementation of existing laws, and the development of further regulations. Policy-oriented research in these areas may contribute to a better understanding of the problem and the introduction of effective control measures

As air quality management is a cross disciplinary issue the City administration works very closely with the national government in this regard. The actions that are taken to mitigate air pollution in the City of Colombo by both national government and the Colombo Municipal Council include;

- a) The National Environmental Act (NEA) of 1980 as amended in 1988 prohibits any discharge of pollutants into the environment including emission of pollutants into the atmosphere.
- b) The Central Environmental Authority in December 1994 gazetted national ambient air quality standards for Sri Lanka.
- c) Clean Air 2000 Action Plan was introduced to restore the gradually deteriorating air quality
- d) Implementation of Fuel quality read map; reduction of Sulfur in diesel from 15000ppm to 5000ppm in 2003, further reduction from 5000 PPM to 3000 PPM in 2004 and from 3000 PPM to 500 PPM in 2007. Rreduction to 50ppm level is on the pipe line,
- e) In 1996 Fiscal Instrument was applied in the form of increasing annual road tax for diesel vehicles to restrict the growth of diesel vehicles.

- f) Total phasing out of Lead in gasoline from year 2002,
- g) Introduction of Road Worthiness Certificate
- h) Issue of Gazette notification on fuel quality and vehicle specific emission standards
- i) Establishment of mandatory Vehicle Emission Testing program island wide
- j) The Commissioner General of Motor Traffic have suspend registration of three-wheelers powered by two stroke petrol engines with effect from 01st July 2008
- k) The City of Colombo formulated its Vision: Clean Air for a Healthy City and our Mission is: Improve and maintain air quality at desirable level by minimizing emission of harmful air pollutants resulting from all human activities in the city through an effective stakeholder participatory mechanism. A short and long term actions were formulated under this vision and put in to action;
- l) Implement uniflow (one-way) road system in selected roads
- m) Keep the foot walk free pedestrians
- n) Improve Junctions Geometry – being implemented
- o) Strict Enforcement of Traffic Regulations
- p) Removal of security barriers
- q) Proper Road maintenance
- r) Computer Based Traffic Management System – to be done
- s) City greening and beautification program
- t) Utilizing waterways for transportation in Colombo
- u) Synchronization of traffic signals: a series of traffic lights along selected roads turns green allowing smooth flow of vehicles, reducing the congestion and need to stop in the middle of traffic; this helps avoid travel delays, especially in heavy traffic, and causes lower emissions and air pollution. Colombo city synchronization system is usually activated during morning and evening peak hours, and the signals are coordinated based on the congestion level.

Noise Pollution Mitigation

As in other major cities the source of most outdoor noise in Colombo is mainly due to construction and transportation which includes vehicle noise and rail noise. Other community noise pollution sources include; religious establishments, car alarms, emergency service sirens, mechanical equipment, fireworks, compressed air horns, barking dogs, electric appliances, audio entertainment systems, electric megaphones, and public address systems such as loud speakers. Commercial activities in residential areas are increasingly creating noise nuisance to the public.

The Motor Traffic (Vehicular Horn) Regulations passed by the Parliament recently enabled the Commissioner General of Motor Traffic to carry out tests to ensure that motor vehicles are maintained to comply with the permissible noise levels.

All forms of community noise in the city is regulated by the City Public Health Department under public nuisance act and the construction noise is regulated by the City Planning Division and the City Public Health Department.

Construction of new pedestrian walkways to segregate traffic from pedestrian and to improve walkability in city streets



Stationary Air Quality Monitoring Station in Colombo



Roadside Air Quality Monitoring Station in action



One-way traffic movements



Utilizing waterways for transportation in Colombo



Towards Green and Clean City of Colombo



Testing Sound level of car-horns in Colombo

