AIR POLLUTION AND THE NEED FOR REMEDIAL MEASURES IN ANTANANARIVO

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The problems of urbanization, population explosion and the increased use of automobiles are well known in Antananarivo. The impact of the pollution in the vicinity of overcrowded cities and from industrial effluents and automobile exhausts becomes very common. Natural or geogenic sources of pollution include weathering of mineral deposits, brush burning and windblown dusts. The sources of atmospheric pollution are industrial emissions from fossil fuel combustion, and power plants, usually located within or at the precincts of the urban areas. The major sources of heavy metal pollution are anthropogenic that include those associated with fossil fuel and coal combustion, industrial effluents, solid waste disposal, fertilizers and mining or metal processing. In Antananarivo, among the heavy metals, the most serious effect of pollution is presently associated with lead (Pb) emission from gasoline combustion by automobiles that would account for about 80% of atmospheric pollution. At present, the impact of the pollutants is confined mostly to the urban centers with large populations, high traffic density and consumer-oriented industries. Most of gases are toxic and carcinogenic. Major components of particulate matter include also smoke, dust, fog and mist. This preview chapter focuses mainly on the critical issues of these urban pollutions and proposes useful solutions to the problem that include: reduction in the sources of heavy metal through bans on the use of Pb-containing products such as leaded gasoline, reduce/eliminate pollutants at source, prevent pollutants from entering the environment, etc.

Keywords: heavy metal, air pollution, useful solutions