

Upgrading the industrial process and fuel combustion processes in small industrial businesses using cleaner production.

5. Managing and controlling air pollution from existing large industrial facilities and electricity power stations

Reduce air pollution in huge industrial area include Shoubra El-kheima, Helwan, Kafr El Zayat, Ameria, Max, Abu-Qier.

Establish an environmental friendly industrial zone

Major contributors of air pollution in urban area of Egypt are both stationary sources, like factory, and mobile sources, like vehicles. In Greater Cairo, automobile source is playing vital role. For dealing with mobile source, CNG fueled public buses and subsequent maintenance facilities were introduced in alternative fuel program under Cairo Air Improvement Project (CAIP). Also, as a vehicle emission testing program, furnishing testing equipment in private gas stations and testing on road (as a pilot project) were carried out. As for the stationary sources, on the other hand, CAIP focused on lead and implemented relocation of secondary lead smelters originally located in city of Cairo and upgrading the smelters. CAIP's activity is only a part of comprehensive actions for air pollution control, and there is a need to implement broad measures as noted in National Environmental Action Plan of Egypt. In addition, a severe air pollution episode known as 'Black Smoke (or Black Cloud), which resulted from open burning of solid waste and agricultural waste in harvest season, coupled with a metrological situation –was started to appear since fall of 1999. With support form DANIDA, EEAA developed national air quality monitoring network in Environmental Information Management Program, and developed pollution source monitoring system by transferring emission monitoring data of cement factories to EEAA. It could be said that EEAA has focused on monitoring activities.

6.3 Water Environment

Water Resource Management / Water Contamination

Many authorities are involved in issues on water resource management / water contamination in Egypt. According to National Environmental Action Plan of Egypt 2002/2017, following actions will be taken for water supply and pollution.

- 1) Water Quantity and Quality
 - a. Optimal use of available water resources
 - b. Groundwater development strategies

- c. Reuse of sewage water
- d. Water resources development
- e. Water quality protection and pollution abatement

2) Managing Lakes

- a. The Ministry of Water Resources and Irrigation and the EEAA have developed a program listed in National Strategy for Lakes rehabilitation and conservation

3) Protecting Coastal Water Quality

- a. Coastal Water Management Scheme of the MWRI

4) Drinking Water

- a. The MWRI has developed a program to improve the quality of drinking water.
- b. Introduction of drinking water fees

5) Wastewater and sewage water Management

- a. The Ministry of Agriculture and Land Reclamation has implemented a program for safer use of treated wastewater to plant timber trees.
- b. Impose fees on discharges of wastewater
- c. The Ministry of Health and Population in collaboration with the Ministry of Housing, Utilities and Urban Communities and other local administrations have developed a comprehensive and integrated program for wastewater collection and treatment.

Sewage system has been fairly well developed in urban areas like Cairo with cooperation with international donors; however, the sewage is not readily available in smaller cities and rural areas where people have no adequate wastewater treatment system. Agricultural canal for irrigation, drainage canal for agricultural waster, sewage, factory effluent, and illegal dumping of municipal waste, all of these situations are contributing to the degradation of water quality in brackish lakes in Northern Delta and Mediterranean Sea. There is an urgent need to tackle those pollution sources for improving agricultural canals. Effluent standards for industrial effluent have been established, and MWRI, MoHP, and EEAA are all conducting inspections and issues improvement orders. However, the overall enforcement capacity is said to be rather weak in Egypt.