

Regulating Industrial Pollution Control through Effective Collaboration of Stake-Holders – Development and Implementation of Self-Monitoring and Reporting (Smart) Program for Industry in Pakistan – *A Case Study*

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Environmental problem in Pakistan are growing fast. Industrial pollution is one of the major problems in the country, resulting from ever increasing use of chemicals and industrial emissions, most of which are uncontrolled and without any treatment prior to their releases/discharges into the environment. Main hazardous wastes in the country, resulting from ever increasing use of chemicals, are industrial emissions, obsolete (out-dated) pesticides dumps located in different parts of the country and medical wastes. Most of the industrial plants in the country are poorly operated and maintained, thus resulting in high levels of emissions and effluents discharges. Serious direct threat to public health, especially children and the environment is also being caused by a huge stock of obsolete pesticides, lying at various depots/stores across the country.

Management of wastes and preventing/abating pollution are two of the fourteen core program areas of the National Conservation Strategy (NCS) of Pakistan, approved in 1992. Pakistan Environmental Protection Act, in acted in 1997 (PEPA-1997), provides for the protection of environment, control of pollution and promotion of sustainable development. Section 11 of the act prohibits any discharge or emission into the environment with level above the National Environmental Quality Standards (NEQS). which have already been notified. PEPA-97 sections 13 and 14 deal with hazardous wastes and hazardous substances, respectively.

To implement NEQS, one of the initiatives taken in the recent past, is a “Self-Monitoring and Reporting/SMART” program for industry in the country. The self-monitoring and reporting guidelines were developed through a long and exhaustive consultations/roundtable discussions among all the stakeholders, including representatives from the government, industry, non- governmental organizations, civil society organizations, universities and research and development institutions.

Under self-monitoring and reporting program industries in Pakistan are made responsible for systematically monitoring their environmental performance and periodically reporting the data to provincial environmental protection agencies (EPAs). It is expected that the entrepreneurs who are well aware of their social and legal responsibilities, will adequately respond to this new system which does not involve role of environment inspectors. The self-monitoring and reporting system takes into account the interests and resources of both the EPAs and industry. On one hand it saves considerable expenses, time and efforts of EPAs and on the other hand it involves industry in evaluation of environmental performance, leading to pollution controls measures.

Under the new system, industry has been classified into three categories A, B, and C each corresponding to a specified reporting frequency. For liquid effluents, a reporting

frequency of monthly for category A, quarterly for category B and biannually for category C is recommended. For gaseous emissions, the recommended reporting frequency for category A and category B are monthly and quarterly, respectively. For most of the industries only 4 – 6 priority parameters have been proposed under normal plant operating conditions

To facilitate the self-monitoring and reporting program, a self-monitoring and reporting tool (SMART) has also been developed by Pakistan Environmental Protection Agency (Pak-EPA), with technical assistance from Sustainable Development Policy Institute (SDPI). SMART has been used by the industrial units to generate report of the emissions levels (environmental data) and send the same to EPAs for compilation and analyses. A pilot-phase program for SMART demonstration and testing was successfully completed which was jointly organized and conducted by Pak-EPA and SDPI in collaboration with federation of Pakistan Chambers of Commerce and Industry (FPCCI).

The self-monitoring and reporting/SMART program for the industrial sector across the country was formally launched by the Minister of environment, government of Pakistan on March 8, 2006

Government, industry and NGOs worked together towards implementation of NEQS in the country through self-monitoring and reporting program and have gone a long way in developing and testing SMART through a pilot-phase program. This joint effort not only raised the level of environmental awareness but also developed an unprecedented momentum in the industrial sector to adopt measures towards waste minimization and industrial pollution control in the country. As a follow up, an “Environment Improvement Program’ (EIP), to be linked with self-monitoring and reporting/SMART program, with two main objectives is also under consideration. These objectives are, firstly, to encourage maximum participation from the industrial units to start self-monitoring and reporting to EPAs and secondly to seek compliance with the NEQS by initially grading the environmental performance of industries into a color coding system and then entering into the pollution reduction agreements with the CCIs, industrial associations and individuals, to reduce the pollution levels by 25% within first year of launching of the EIP and achieve 75% reduction by the end of 3rd year.

The success of the self-monitoring and reporting/SMART program has been due to collaboration and thorough and exhaustive consultation, both for the program development and program implementation with all the stakeholders from the very beginning. Stakeholders such as chambers of commerce and industries (CCIs), universities and R & D organizations and NGOs are there all over the country and have the facilities as well trained personnel to contribute significantly towards this program by either providing training/analytical service or initiating activities towards awareness raising activities. Continued and effective collaboration of policy makers, universities, research and development organizations and industry would further ensure the success and sustainability of this program.

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