

Theme 2: Roles of Industry and Public Interest and Labour Organizations in National Chemicals Management and SAICM Implementation, including opportunities and challenges of implementing effective voluntary industry programmes.

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**Abstract**

Bahrain is experiencing fast industrialization and urbanization since the past two decades due to the flexible and friendly policies of the government, providing economic incentives to the commercial and industrial entrepreneurs. Bahrain has now become the hub of industries and is the financial and commercial center of the Middle East. The population of the Kingdom is over 700,000 having population growth rate of 2.9% and boasting the highest population density among GCC states of over 900-persons/km<sup>2</sup>. spreading over an area of 710 sq. km.

The main tax of industrialization and economic development is the generation of waste. Due to lack of appropriate and adequate facilities for waste disposal and inability to reduce the amount of waste generated. The solid waste management is posing environmental problems that must be immediately addressed to protect the human health and environment and preserve natural resources of the country. Furthermore the main issues related to waste management are due to indiscriminate waste dumping, uncontrolled dumps and unmanaged waste sites that poses a risk to human health and the environment.

Bahrain is a signatory to all major regional and international conventions and protocols on waste management. The Kingdom has endorsed the United Nations Millennium Declaration affirming the goals and initiatives in September 2000. The country is now looking forward to establish a practical integrated and sustainable waste management which is environmental friendly and can safeguard the public health of the residents and national environmental resources.

Due to lack of financial sources and limited land area there is difficulty to implement the Integrated Solid Waste Management (ISWM) approach which has competed the local authorities to find other suitable, feasible and environmental friendly options to deal with the waste generated especially the industrial liquid waste. This report briefly describes the approach and actions taken by the Waste

Management section, Directorate of Environmental Control, General Directorate of Environment and Wildlife Protection (GDEWP) towards *Integrated Waste Exchange*.

Since its inception, the GDEWP has been striving for establishing an environmental friendly waste management and monitoring system. The GDEWP has adopted an Integrated Waste Management Strategy that utilizes the *Integrated Waste Exchange* as a major tool to reduce the waste quantities that require disposal. The GDEWP also support and encourage the "In-House Waste Separation" facility resulting in substantial savings on waste disposal costs.

Furthermore, Chapter 20 of Agenda 21 stipulation that "the framework of integrated life-cycle management, the overall objective is to prevent to the extent possible, and minimize, the generation of hazardous wastes, as well as to manage those wastes in such a way that they do not cause harm to health and the environment."; and section 20.8 of this chapter proposed four program areas as following:

1. Promoting the prevention and minimization of hazardous waste;
2. Promoting and strengthening institutional capacities in hazardous waste management;
3. Promoting and strengthening international cooperation in the management of transboundary movements of hazardous wastes;
4. Preventing illegal international traffic in hazardous wastes.

The main aim of Waste Exchange is to promote the implementation of the best practicable environmental options against disposal of waste. The challenge of increased waste and chemicals quantities generated can only be met by creating awareness among the waste generators, involving the industries, developing and implementing an integrated and sustainable approach where public, private and community sectors work together in harmony to develop local solutions for chemicals and waste management.

This case study concentrates on *Waste Exchange* as an effective voluntary industry programme. Also as a *Green Policy* towards green industry and encourages them to implement it to save environment.