

## **Executive Summary**

Summary of analytical study of industrial chemicals based on life cycle (production, import, export and final disposal of chemicals)

### **Introduction:**

Chemicals are a substantial environmental issue at national level, so in order to have clear picture on the current situation of chemicals management in the Kingdom of Jordan; this analytical study has been conducted to adjust the procedures of handling these chemicals; that go into many different industries; in terms of production, import, export, transport, storage, marketing and final disposal. Also, to identify the role of concerned institution based on life cycle of chemicals, as well as state legal procedures to deal with these materials in Ministries, governmental firms, valid legislation and to identify challenges and opportunities for improvement in current legislation in addition to provide recommendations relay on this analysis.

Through this study, legislation were gathered, the role of stakeholders were identified, to get overall analysis that can address all chemical management challenges, and recognize the role of each Ministry in management of Chemicals based on life cycle, as follows:

#### **A) Ministry of Environment:**

MoEnv is considered the liaison institution concerned with international conventions related to management of industrial chemicals in coordination with concerned institution.

The Ministry handles Chemical within special legislations through the Environmental Protection Law no. (52) of 2006, rules and regulation issued pursuant thereto.

The Environmental Protection Law handle the theme of chemical management through variety of legal texts such as: set out handling procedure of hazardous and harmful substances, collection, classification, storage, transport and disposal in accordance with regulations issued for this purpose. In addition to establish technical committee of specialists from all concerned institution. This committee will classify hazardous, harmful, banned, restricted substances and their wastes. Also, draft instructions for principals, conditions, scientific methods and technical resources required for handling the aforementioned substances, as well as certified permits forms.

#### **B) Ministry of Health:**

Chemical Information Center was accredited as Chemical Safety Department at the Ministry of Health, and it is an entrusted entity for applying the procedure of prior approval to import conditional and banned chemicals with health impact on humans; and considered the liaison national institution on prior approval on Chemical Science authorized by the UN Food and

Agriculture Organization in accordance to provision of article (45) of Public Health Law no. (47) of 2008.

The Ministry defines Public Health Act of Chemicals and Conditional Chemicals and banned substances. The Ministry is considered the authorized entity to control the import, export and handle of Chemical substances.

#### **C) Ports Corporation:**

The Department of Public Safety supervises the handling and storage of hazardous Chemicals in addition to other duties. Department of Fire Fighting takes necessary measures to deal with those materials, where Prince Hamzah Centre controls pollution caused by oil in coordination with specialized authorities and Environment Commission part of Aqaba Special Economic Zone Authority.

PC implements International Conventions and the certified International Codes through field visits to ships that carry hazardous goods wrapped in conditions of public safety and necessary precautions during transport process as well as consider specific circumstances of storage, observes the conditions of separation of these materials and to verify the integrity of packaging.

#### **D) Customs Department:**

Jordanian Customs Department acts for regulatory and executive role regarding import and export of Chemicals, which constitute a high percentage of imported and exported materials. Also applies legislation of other entities with respect to import of goods instruction no. (1) of 2008.

The Customs Law and its amendments No. (20) of 1998 clarify all materials related to banned, restricted, confined and similar goods.

In addition, it controls and monitor through customs clearance centers that deals with all types of goods, including chemicals imported to Jordan under any set of conditions.

The process of customs clearance of chemical goods is done according to accepted methods set forth in the Customs Law, as computerized systems facilitate the work specially ASCODA international system for chemicals clearance.

#### **E) Standards and Metrology Institution:**

The Institution prepares, adopt, review, modify, control and apply standards and technical regulations for all products and services; whether these products are local or imported except pharmaceutical and medical products, veterinary medications, serums and vaccines. The role of monitoring food became the job of General Organization for Food and Drugs.

The Institution exercise its initiator and effective role in protecting the health and safety of human and protection of animals, plants and environment through the application of best international practices in the area of standardization, metrology, conformity assessment, market survey and knowledge management in collaboration with stakeholders.

The Directorate of Standardization prepares standards and technical regulations through technical committees constitute through competent authority.

#### **F) Ministry of Agriculture:**

The Ministry is the executive party of Rotterdam Convention in respect to pesticides, which is the only party responsible for the preparation of measures of health and healthy plants under the provisions of Agriculture Interim Law No. (44) of 2002. The Ministry also contributes with competent authorities in preparation and implementation of measures to ensure the human safety and prevent diseases transmission.

Plus, it is considered the responsible entity for issuing of import and export licenses for agricultural products and inputs that is not incompatible with International Conventions being a party.

#### **G) Development and Free Zone Agency:**

Dealing with Chemicals at Development Zones and Free Zones through Authority Act of development and free areas as amended No (2) of 2008, in line with the Environment Law, regulations and instructions issued pursuant and in coordination with concerned parties.

#### **H) General Organization for Food and Drugs:**

Concerned with Management of Chemical directly under Food and Drugs Law No. (41) of 2008, and Temporary medicine and pharmacy Law and its amendments No. (80) of 2001.

#### **I) Aqaba Special Economic Zone:**

ASEZone is considered as development area that manage chemicals in coordination with concerned institutions under Aqaba Special Economic Zone Law and amendments No.(32) of 2000>

#### **J) Royal Administration for Environment Protection:**

Rangers was established on 15 June 2006, under the direction of His Majesty Kind Abdullah II, may Allah protect him, and considered as the operational management for concerned parties dealing with chemicals. They adjust and edit violations for parties dealing with chemicals without required licenses. They apply legislation of other relevant agencies concerned to chemicals.

### **Challenges analysis:**

- 1) There are legislations for Chemicals in general with no details, some of them about harmful and hazardous substances together as chemicals, with no clarification when harmful substance become hazardous and when not to be, as mentioned in Environment Law No. (52) of 2006.
- 2) lack of text that covers the life cycle of chemicals, where Ministry of Environment monitor chemicals in coordination with Customs Department, Ministries and other entities without continuous management in the sense of processing one stage of set of stages; The MoEnv asked other concerned Government Department to coordinate with them, despite the fact that there is no legislative article on importing chemicals but only Environment Law No. (52) of 2006. Banned chemicals should be listed and no more entry of pollutants and waste into Jordan by instructions upon Minister's recommendation and approved by the Council of Ministers.
- 3) Emergence of many new issues and cases related to chemical management not covered by legislative provisions which deals with such cases and but not limited to: redundancies of customs, rejected goods, smuggled drugs, counterfeit drugs, detergents sold by peddlers.....etc. lack of legislative of Jordanian Customs Law No. (20) of 1998 and amendments.
- 4) No clear role in addition to operational and coordination tools of firms, concerned institutions and competent authorities specialized in chemical management, especially in case of emergency issues when operational institution such as Civil Defense and supervisory ministries e.g. Ministry of Environment.
- 5) No effective control over some chemical products either imported or produced, such as paints, detergents, toys and any other material involved in chemicals manufacturing, as mentioned in Ministry of Health Law No. (47) of 2008, mentioned that Ministry of Health controls exported materials, but there is defect when applying control: not wide enough, not effective and no clear vision of what is the imported materials.
- 6) There are some products in local market which has no technical structure, no standard specifications which shows legislative shortage in Standards and Metrology Law No. (22) of 2000.
- 7) Jordanian standards and technical regulations do not harmonize with other countries standards and regulations that may hinder Jordan trade with these countries, which requires changes in Standards and Metrology Law No. (22) of 2000 to avoid this defect.
- 8) Some of fines and penalties in provisional Agriculture Law No. (44) of 2002 inconsistent with the size of improper handling of hazardous chemicals, specially at agricultural facilities that produces these materials.
- 9) Destruction procedures of hazardous chemical and empty containers are not clear in accordance with provision Agriculture Law No. (44) of 2002.

## **Recommendations:**

- 1) Draft unified and effective legislation for chemical management based on life cycle in coordination with all concerned parties, and jointly with official participants from private sector, volunteer associations, universities and any parties related to chemicals; if possible, consolidate chemicals lists at national level, also update them as needed to dispose the accumulated redundancies of customs, rejected goods, smuggled drugs, counterfeit drugs, detergents sold by peddlers.....etc. so as to amend legislation to include the product and possession of chemicals.
- 2) Update the current chemical lists on regular basis, and in line with international updates, specially the targeted chemicals within Rotterdam Convention.
- 3) Adapt classification of chemicals in line with Global Hazardous System (GHS).
- 4) Necessity of having Memorandum of Understanding (MOU) with concerned parties of chemical management in a way to demonstrate the roles and operational tools (e.g. Development and Free Zone Agency, Customs Department).
- 5) Legislative tools are poor to relative information about chemicals in terms of characteristics, composition, dangerousness and classification. This requires putting accurate and clear definition for words and phrases of chemicals; and to consider definitions mentioned in international conventions for chemicals in proportion to national legislation.
- 6) Increase number of technical staff who deals with chemicals, construct right infrastructure, and building capacity at public sector through training and financial support.
- 7) Raise awareness to all society categories that deals or affected by chemicals, through all means of audio-visual, written releases and websites and so on.
- 8) The need for prior coordination between all concerned parties in case of dealing with chemicals in emergency issues, therefore, establishing and developing collaborative mechanism between ministries and concerned firms that deals with chemicals and waste.
- 9) Issue legislative articles dealing with chemicals in a comprehensive manner (always join harmful substances with hazardous).
- 10) Legal Environment protection through banning any material harmful to environment, or dispose it or collecting whether chemicals or non-chemicals or mixed materials.
- 11) Delegate authority to other departments that deals with chemicals permanently.
- 12) Create national database for chemicals and waste only.
- 13) Develop procedures for information sharing between ministries and concerned firms, including web page on Safety Chemicals.
- 14) Develop strategy of capacity building in chemicals and waste management.
- 15) The importance of activating monitoring over chemicals whether produced locally or imported by determining components and its impact on health.

- 16) Customs Department and all Border Centers must be linked to web site of chemical management system of hazardous substances and specially the site of (HSMS).
- 17) Determine the registration number of chemical on the invoice of imported goods.
- 18) Prepare new Jordanian specifications for all new product available at Jordan market but with no description.
- 19) Complete Jordan standards specifications and comply with relevant European guidelines.
- 20) Increase fines and penalties that are mentioned in Agriculture Law No. (44) of 2002, to be consistent with the violation in hazardous chemicals, specially at agricultural facilities that produce hazardous chemicals.
- 21) Illustrate mechanism of destruction of hazardous chemicals and empty containers by updating Agriculture Law No. (44) of 2002.