

## TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTE

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### Summary

Over the years, as countries have become more industrial they have faced an increase in waste and a corresponding increase in hazardous waste. At the same time environmental awareness has grown and legislation has been developed to control the handling of waste in general and hazardous waste in particular. This tightening of regulations combined with increasing lack of landfill sites has caused a rise in the price of waste disposal. As a result, a search for cheaper waste disposal means started and was met with the possibility of transporting the waste to other countries that did not have such rigid regulation or could be “persuaded” to accept the hazardous waste. This went on for many years before public pressure placed an emphasis on the issue and it became an international concern.

The transboundary movement of hazardous waste is a topic that brings about different reactions from different groups but all agree that it is a complex and ambiguous topic that needs to be researched, defined, monitored, and controlled. At the most basic level it is difficult to define what is a waste and just as difficult to define what is hazardous. There have been many attempts to define what constitutes hazardous waste but no commonly

accepted definition exists. The problems with defining hazardous waste are that the exact chemical composition of the waste is not always known nor is it possible to determine; in addition, its bacterial and viral content is even more difficult to determine. Furthermore, it is difficult to set standards and limits when the harmful effect of many substances is not yet scientifically proven. In an effort to solve this definition problem, many countries have opted to use inclusive lists that detail all the substances and criteria that they require to be used to determine if a waste is hazardous. If the substance is not present in the list then it does not need to be controlled as hazardous waste.

The “transboundary movement” of hazardous waste is the next major topic of debate and conflict. The many years of trade in hazardous waste and exploitation of developing countries has made it a “hot” topic with the focus being on the control and preferable ban of the movement of hazardous waste. Consequently international, regional, and national rules and laws have been drafted, amended, and adopted on the issue of transboundary movement of hazardous waste. The priority has been placed on waste minimization and waste disposal at source, though there has been recognition that other options may be as viable. Some states and regions have moved for a total ban on the import or export of hazardous waste and the international community has moved to protect them and their decision. Other regions have just put in place a system for the management of such transboundary movement as they manage their waste disposal regionally.

Whatever stand the states and regions take and regardless of what agreements they draw up between them, two main principles now govern the transboundary movement of hazardous waste as defined in the Basel convention. These two principles are: prior informed consent and waste handling in an environmentally sound manner. Prior informed consent refers to a requirement that any recipient or transit state for the waste must be fully informed of the hazardous waste that has been proposed to enter its territory and that it must give its consent to accept such waste. If this consent is withheld then the waste is not granted entry into the country and must be re-imported by the state of origin if this decision is violated. On the other hand, what is meant by an environmentally sound manner is that the waste must be handled in a manner that is protective of the environment and it is the responsibility of the waste producer to ensure this. The waste producer must either dispose of the waste in such a manner at source or ensure that the recipient state has the means and technology to do so.

## **1. Introduction**

Waste producers are continuously faced with the problem of disposing of their waste and must choose from among a number of different disposal and treatment options. Increasingly they are choosing to export the waste to other countries where this is possible. The amount of hazardous waste that is transported across state boundaries has increased dramatically in recent years though it is difficult to estimate how much hazardous waste is being transported over boundaries every year. From the figures provided by the Organization for Economic Co-operation and Development (OECD), the scale of waste movement is in the order of 4 million tons per year, all of which is not necessarily transported according to national and international laws.

The 1980s saw a tightening of environmental regulations in the industrial countries, which resulted in a significant, if not dramatic, increase in the disposal costs of waste and in particular hazardous waste. Consequently a new breed of traders arose, offering cheaper ways of getting rid of waste. These “toxic traders” shipped waste to countries that did not have such stringent regulations, namely developing countries and Eastern Europe. This went on for some time before the full extent of their activities was revealed by high profile media coverage that raised the awareness of the worldwide community. This culminated in international outrage, leading to international organizations initiating the development and use of elaborate legal instruments to regulate and control the movement of hazardous waste. The first comprehensive attempt at regulating hazardous waste came with the drafting and adoption of the Basel Convention to control the transboundary movement and disposal of hazardous waste. Following the Basel Convention, many regional and multipartite agreements were signed. For example, the EU (then the EEC) has produced several directives that regulate the transboundary movement of hazardous waste. These directives address more precisely the needs of EU countries and make provisions for more detailed regulations of the precise issues that face the region. The EU directives take into account the stipulations in the Basel Convention and make use of the convention’s flexibility and allowance for regions to develop and implement their own rules and regulations as long as they do not violate some basic Convention provisions.

Prior to the activities of the 1980s, some significant actions were taken that would later pave the path for the developments of the following two decades. In 1974 the OECD Environment Committee created the Waste Management Policy Group to consider, develop, and promulgate international policy instruments to promote appropriate waste management behavior. This was done as a contribution to sustainable development. As the group developed they became more concerned with hazardous waste and since 1980 they have been placing special emphasis on the transboundary (sometimes referred to as transfrontier) movement of such waste. The work of the Waste Management Policy Group eventually led to the OECD adopting eight Decisions/Recommendations and formed the groundwork for the Basel Convention on Transboundary Movement of Hazardous Wastes and their Disposal. The group also succeeded in contributing to the adoption of several European Directives on waste identification, definition, and control. This is an important development because, before controlling the movement of hazardous waste, it is important to be able to define and identify it. Yet, internationally there are still many differences in the definition of “hazardous waste,” which makes it difficult to compare data figures from different countries. Apart from definitions there are many differences in the regulations that govern hazardous waste and its movement. In this chapter, the Basel Convention and some European Directives will be presented and discussed as they are the most significant international agreements and influence most of the industrialized countries.

It is now common to portray the transport of waste across boundaries as “bad” or undesirable. It is a controversial issue that needs to be regulated and even many have advocated for it to be banned. The circumstances under which and the reasons for the transport of hazardous waste taking place need to be closely examined before it is condemned. It should be considered that if the material is transported under controlled, technically sound conditions then it should be safe to move such waste short as well as long distances. The waste should be relatively safe to transport if it is properly handled with the required level of technology and precautions and the whole system is well

maintained and regularly audited. In addition, if the waste material is well labeled with easily translatable descriptions, the importing state is both fully aware of the waste constituents and has the full right to give or withhold its consent. If the importing country has the necessary technology, staff, and support system (including infrastructure) to deal with the waste then it should be safe to transport and ethically acceptable too. In fact, if the only available waste facility is located within another country, transporting the hazardous waste to that country and facility may be a much more environmental option than choosing an alternate, less safe means of waste disposal simply because it is within the same state.

On the other hand the transboundary movement and disposal of hazardous wastes poses a risk of detrimental effects to every sphere (land, air, water). Landfills potentially affect the land and then water too through contamination of ground water; incineration releases substances to the air that will eventually settle, or be transported down with the rain, into the water bodies or onto land. Any sphere affected usually affects the other spheres. The transboundary movement of hazardous waste increases the potential dangers of hazardous waste. Namely, longer distances traveled increase risks of accidents during transit or treatment and the recipient country may not have stringent and sophisticated environmental regulations and control mechanisms, thereby increasing the potential ill effects to human health and the environment. Inappropriate waste handling at any point will increase the hazards to the environment.

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### **Biographical Sketch**

**Shima Barakat** is currently researching the effects of environmental legalization and other environmental pressures on corporate strategy at the University of Strathclyde as part of her PhD. She has an MBA and a Certificate in Environmental Studies. She also teaches, on the MBA program, and undergraduates in both the engineering and business faculties of the University of Strathclyde.

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