

# Chemical Safety for Enterprises

Convention Project  
Chemical Safety



**By improving the management of chemicals, companies can lower production costs, improve product quality, reduce their environmental impact, and improve the health and safety conditions for workers thereby increasing their motivation and productivity.**

## Background

In many industrializing countries, smoking chimneys were viewed as a sign of entrepreneurial prosperity, and foam on rivers was accepted as an unavoidable accompaniment to the beginnings of the economic miracle. It was only in the late 50s that the authorities began to make consistent attempts to stem pollution of the air, water and soil and to create the legal foundations for the protection of water and ambient air. In Germany, the model of an environmentally friendly recycling economy took shape in the mid-90s. Acceptance of the need for integrated approaches prevailed not least because of the high non-productive costs of end-of-pipe solutions.

Our partner countries, which suffer enormous environmental problems, are today interested in preventative environmental protection technologies, which have distinct cost advantages: fewer pollutants and emissions are produced, and better use is made of raw materials.

## Problems

In developing countries many people handling dangerous chemicals – pesticides and herbicides in agriculture, industrial chemicals or toxic waste – are unable to read or write at all, or have had very little school education. It is always the poorest and the least educated who do the most dangerous jobs, e. g. day labourers who have no choice but to take any work. The worst conditions are often to be found in small, informal workshops, dye houses, tanneries and textile factories and other production lines.

In most partner countries governments have developed chemical laws or regulations to protect workers health and the environment. But they have neither human nor financial resources to force companies into accomplishment of the rules. The best laws and international agreements on chemical safety are of little use if they are not respected.

## How to improve the situation?

To improve the environmental performance of a company, the management has to be convinced this is also beneficial for the production process and the outcoming product.



*Workers in developing countries often handle chemicals without knowing about their danger to health and environment.*

*(Picture: Matthias Kern)*



*Implementation of chemical safety measures in Indonesian companies.*

*(Picture: Wolfgang Schimpf)*



### Companies can:

- ▶ **Lower production costs** by adequate handling and storage management of chemicals because these measures reduce losses.
- ▶ **Improve product quality** by better selection of resources needed for the production. They can replace very toxic chemicals, avoid the overuse of substances and might be able to recycle some of the ingredients within the production flow.
- ▶ **Reduce their environmental impact** by improvements of the production systems because they need less input material and have less waste, including water and electricity. A safe management of chemicals reduces the risk of spillage and accidents.
- ▶ **Improve the health and safety for workers** and thereby increases their motivation and productivity. Better working equipment prevents contamination via skin, nose and eyes, and in well managed companies there is less danger for accidents.

### Fields of action

The project has developed a **Chemical Management Guide** which permits the companies to implement improvement in a step-by-step approach. This approach is based on identifying "hot spots" as a first step and making a chemical inventory on a second step. These steps provide the needed information to observe and calculate potential losses, assess risks, consider, determine improvement measures and adequate controls, implement actions in a systematic way, and monitor and evaluate the results obtained.

The Guide has been developed in cooperation with ProduksiH component of the Indonesian-German Environmental Programme, the Federal Institute for Occupational Safety and Health (BAuA) and the Pilot Programme for the Promotion of Environmental Management in the Private Sector of Developing Countries (P3U).

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*Improvement of the environmental performance of a company has a positive effect on the product quality and the workers health. Women in a Batik factory in Indonesia.*

*(Picture: Wolfgang Schimpf)*



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