

Summary

The environmental impact of airborne emissions and other kinds of pollution, like noise pollution, becomes more attention from governments and environmental organisations. Airborne emissions will decrease the quality of the environment. The growing awareness of the governments and other organisations results in plans to reduce the impact on the environment caused by industrial and port operations.

In 1987 finished the Brundtland Commission their report of the United Nations "World Commission on Environment and Development". The commission launched the idea of Sustainable Development. According to the commission does Sustainable Development means that there is a stable situation by the social, economic and environmental systems.

Countries have their own legislation to protect the environment and the human health. This varies from rules about the maximum concentration for airborne emissions and emissions from diesel engines till maximum noise levels.

Europe has determined some directives in the field off environmental and human health protection. These directives contain limit values and long-term objectives for airborne emissions. The limit values give maximum concentrations of emissions, for this moment. The long-term objectives give concentrations, which hopefully will be met in 2020. Further describes the European legislation the maximum emission of diesel engines.

The member states of the European Union have to make their own regulations for environmental protection. These regulations have to be at least as stringent as the European Directives. In The Netherlands gives Wet Milieubeheer the maximum emission concentrations, which are the same as prescribed in the European Directive. The wet Geluidhinder gives maximum noise levels for houses in the surrounding of industrial and port areas. The Dutch Emission Directive Air provides a progressive scheme to show what a tenant has to do, before the licence application can be started. New member states or member states who will become a member in the next few years, have to adopt the European Directives into their own regulations.

The United States of America has its own legislation. These laws are comparable to the directives of the European Union, but are in general less stringent than the European rules. California has determined their own rules, which are more stringent than the American rules.

China has set own Air Quality Standards, but are not able to enforce tenants and other companies to met these standards. To solve this problem has the government of China, together with the World Health Organization and the United Nations, a plan developed to create better circumstances to enforce the law. Countries like Brazil have other problems as deforestation. The result of the other problems is that the Brazilian government is not able to enforce the laws.

Port authorities of harbours in The Netherlands and America have, besides the regulations of the government, developed programs to increase the environmental quality. The ports of Rotterdam, Los Angeles/Long Beach and New York/New Jersey have made such plans. These plans give actions in which way the air quality can be improved. These actions can in general be divided in the sources of environmental damage, like Heavy-Duty Trucks/Vehicles, Ocean-Going Vessels and Handling Equipment. The environmental plans give also strategies to implement these plans. This can be done by giving subsidies to tenants for implementing cleaner equipment. The actions in the plan will also be a part of the negotiations for lease contracts.

The Kyoto-Protocol is developed by 192 nations. This protocol enforces industrialized nations to reduce the emission of greenhouse gases by 5.2% on average in the commitment period of 2008-2012. The USA is not bounded to the Kyoto protocol, because it has not signed the ratification of the protocol. They are afraid that the Kyoto regulations will harm their economy. Other future demands are given by the European Union with their long-term objectives. The American law gives not such future values.

The port authorities have set up requirements for tenants. These regulations give for the ports in Rotterdam and Los Angeles actions to increase the safety and to reduce the environmental impact. The requirements from the port authority of Singapore contain only regulations about the safety in the port.

Industrialized countries like The Netherlands and the USA are in general more aware of the environmental impact of the port operations. They are also able to enforce companies to fulfil the regulations. Other countries (China, Poland) are becoming more alert on the influence of port operations on the environment and human health. This result in the development of new environmental regulations.

Port authorities of large ports like Rotterdam, Los Angeles/Long Beach and New York/New Jersey, takes their responsibility by developing environmental programmes. Port Authorities are recommended to have a better cooperation by making environmental plans. This can reduce the costs of the separate development of almost the same plans.