

CASE STUDY

Fair environmental conditions in urban areas in Germany

Germany

Protection of human health from environmental burdens in urban areas.

Goals and Objectives

The research project “Environmental justice in urban areas” (Böhme et al., in cooperation with the German Institute of Urban Affairs; 2015) enables municipalities to develop strategies for protecting the health of citizens from environmental burdens. Its objectives are:

- Establishing indicators that can be used for monitoring the social, health and environmental situation of residents.
- Assessing the current level of environmental fairness and of municipal needs.
- Identifying existing municipal approaches and practices.
- Implementing appropriate instruments to relieve heavily burdened areas involving the public and relevant stakeholders.

For the development of appropriate measures, the project highlights how best to involve local and municipal stakeholders in the process.



Project Overview

Context

Achieving fair protection of human health from environmental burdens is an action area of the WHO Chemicals Road Map. Exposure to emissions from traffic and industrial/commercial activity can have a substantial impact on human health. In Germany, citizens in deprived urban areas may experience an excessive burden of air pollution compared to areas with higher-income residents. However, incomplete data and the lack of monitoring mechanisms make it difficult for municipalities to implement strategies that ensure fair protection against environmental burdens with impacts on human health.

The German Institute of Urban Affairs (Difu) conducted a [research project](#) which focused on integrating environmental fairness into municipal practice. Relevant findings relate to indicators for monitoring, to instruments for assessing municipal needs, to stakeholder involvement and to the planning of strategies and protective measures, thereby contributing to capacity-building at the municipal level.

Approach

The Difu project took an inter-departmental approach, involving the health, environmental and urban development sectors. It was conducted together with an inter-agency working group comprising representatives from academia, as well as the federal and municipal governments. The project itself was run in two phases. The first phase focused on monitoring and instruments. Based on research and expert interviews, the monitoring activity assessed already existing sets of indicators reflecting the social, environmental and health situation. The instruments activity focused on the evaluation of relevant instruments and measures as to their ability to counteract the effects of environmental burdens. In parallel, Difu analysed documents and conducted interviews with municipalities to examine their practices and administrative political framework. During the second phase, the instruments and measures gained from the first phase were tested and validated in a simulation game with municipalities of different sizes and conditions.



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Results

The study confirmed that the urban areas most affected by health-related environmental burdens are often also the most deprived ones. It showed that municipal monitoring of the health, environmental and social situation is necessary to identify burdened areas and to assess the needs of the populations in these areas. In this connection, the simulation game proved that the following basic indicators adequately describe the situation:

- *Social situation:* Percentage of long-term unemployment, child poverty and youth unemployment
- *Environmental situation:* Exposure to traffic emissions, including street noise, particulate matter and nitrogen dioxide
- *Health situation:* Percentage of cases of overweight, obesity and gross motor dysfunction.

Findings from analysis of the data retrieved from the monitoring activity were discussed between municipalities and relevant stakeholders, such as real estate owners, transport companies and advocates of pedestrian/bicycle traffic. The discussions led to the following planning measures to be taken:

- Transit bans for trucks; traffic control measures; raising the attractiveness of public transport; promoting pedestrian and bicycle traffic; promoting electromobility.

For the implementation of these measures, municipalities made use of available formal assessment tools, planning and legislative instruments; for example, specific urban planning legislation integrating health and environmental aspects. In addition, informal instruments were employed, including sectoral plans for public transport or urban monitoring. Space was created to involve the relevant stakeholders.

Lessons Learned

Acknowledgement of the importance of environmental fairness is a prerequisite for developing a successful strategy to counteract health-related environmental burdens and corresponding costs in municipalities. In order to put the topic on the political agenda, broad public participation is needed. Moreover, relevant stakeholders such as real estate owners and public transport companies need to be involved. The suggested monitoring approach was assessed by municipalities as being generally feasible and adaptable. The data proved to be reliable overall in regard to the social and environmental situation. However, there was a lack of good health data as well as specific data showing the situation within the most affected communities. Both the results of the case studies and the simulation game indicate that environmental fairness should not be implemented in isolated administrative activities. Instead, the objective should be to integrate it into existing concepts, plans, target-setting and guideline processes, especially in the area of integrated urban development. This is also important to avoid possible adverse effects, mainly gentrification. Overall, the project findings show that municipalities can jointly deliver on the promotion of health, sustainable partnerships and urban development, thereby contributing to the achievement of Sustainable Development Goals 3, 11 and 17.

The case study was authored by the German Environment Agency, UBA. The named authors alone are responsible for the views expressed in this publication.

Recommendations

- *Clarify the importance of environmental fairness to municipalities and sensitize administrative employees to the need for low-threshold participation opportunities to actively involve the affected population groups from early on.*
- *Integrate data pertaining to health, environment and the social situation into the monitoring process and, where possible, communicate with other departments to gain access to already existing data; for example, from school entry health check-ups.*
- *Use existing inter-agency coordination rounds instead of creating new structures. Identify relevant interfaces and address the appropriate dedicated individuals.*
- *Identify relevant funding schemes of federal governments and international organizations to address structural underfunding of municipal budgets.*

It is crucial to acknowledge that every municipality has a different situation at the outset. Specific needs can be identified through monitoring, while an appropriate set of measures should be implemented on the basis of available instruments and stakeholder involvement. None of the instruments examined can be used in isolation to establish fair environmental conditions.

This project did not primarily focus on chemicals from industrial/commercial activities. Nevertheless, its approach, tools and recommendations can easily be transferred to such sources so as to form a basis for protection against related pollution in urban areas.



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This case study is one of a series of case studies coordinated by WHO to illustrate the implementation of the WHO Chemicals Road Map.



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