Evaluation of the Environmental and Social Impacts of the "Industrial Pollution Improvement Project in Plovdiv" (Bulgaria)

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Evaluation objectives and method

In addition to the ex-post evaluation based on 5 DAC criteria (see p. 82 for details), a more detailed analysis of project impacts, focusing on the environmental and socioeconomic aspects, was undertaken. The Balkan Scientific Education Center of Ecology and Environment was commissioned to evaluate the project's environmental impacts, and analyzed compliance with environmental standards (air pollution, wastewater), residents' health and the local environment (soil and crops), impacts on cultural assets and so forth. The social impacts were evaluated based on the information obtained from a beneficiary survey covering approximately 520 people, bibliographical and media research, etc.

Evaluation result

(1) Environmental impacts

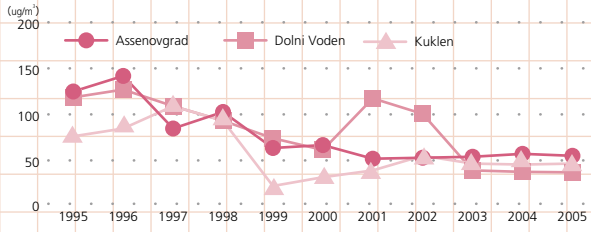
Bulgaria officially joined the European Union on January 1, 2007. The equipment and machinery introduced at KCM as the result of this project enabled the company to meet EU environmental standards, and the company's environmental equipment and technologies have received high praise for their excellence. As a result, the Bulgarian environment ministry awarded KCM, the project's executing agency, the country's first Integrated Permit*. The survey of the surrounding environment showed reductions in concentrations of dust, lead, cadmium, sodium dioxide (SO2) and other pollutants in the air, and a conspicuous reduction in emission concentrations since 2003, the year in which the installation of environmental equipment using ODA loan funds was completed.

Heavy metal contamination of soil in the surrounding area continues to be a serious problem, but observations conducted following the project completion found that concentrations of lead, zinc and cadmium in soil had decreased. Regarding plants and crops, farming remains prohibited in some areas, but lead and cadmium pollution of animal feed and pasture has been decreasing since project completion.

In terms of the impact on the cultural heritage scattered in Plovdiv, reductions in environmental pollutant emissions from KCM have narrowed the area affected by dispersed SO2 and dust, it suggests that the impact on the cultural heritage and historical buildings has also lessened.

* This is an operation permit for industrial installations that is based on the Integrated Pollution Prevention and Control (IPPC), a part of EU council directive.

Trends in Annual Average SO_2 Concentration around KCM (Assenovgrad, Kulden, Dolni Voden)



The feedback seminar

(2) Socioeconomic impacts

While it is difficult to identify any socioeconomic impacts that may be directly attributed to the project, the effects are broadly positive. The most important positive impact of this project is the health improvement. It consistently ranks as major factor in the beneficiary survey. And, it also helps to improve the overall image of KCM. KCM affiliated people have, not infrequently, seen their incomes rise and their qual¬ity of life improve. KCM has also had a big impact on job cre¬ation in the area, and the company and its associates together employ more than 40% of the local population. The positive socioeconomic impacts attributable to KCM are not only being felt among those households of KCM affiliated people but in the area as a whole.

(3) Community contributions

In addition to its efforts to tackle environmental pollution, KCM is making active contributions to the community in other areas. It has been involved in such activities before the project was implemented, but reinforced its efforts since 1990s. Its activities are highly diversified and include the publication of information in periodicals (e.g. lab findings on blood concentrations of cadmium among KCM employees), the cultivation of lavender* as a means of alleviating soil contamination, donations to public facilities in the area, such as schools, hospitals, churches and museums, as well as supporting cultural events. Among these activities, KCM places priority on the health of employees and local residents. For example, KCM responds actively and promptly to the needs of its employees, financing their health expenses and those of family members. KCM uses these activities to show its commitment to harmonize with the local community. They also serve to demonstrate the company's strong corporate social responsibility (CSR) to the community as a whole.

*Lavender absorbs soil pollutants, such as cadmium, and KCM not only encourages local farmers to cultivate this plant, but is also contributing to the production and sale of essential oils.

Conclusions and recommendations

KCM's image has improved dramatically as the result of its efforts to tackle environmental pollution and its contributions to the community. However, much still remains to be done if KCM is to convince local residents that the plant represents an "opportunity" rather than a "threat" to the region's development. KCM is advised to give priority to health improvement programs that are designed to protect the community over the coming years.

See p. 82 for the full evaluation of this project.