

Designing and Implementing Effective Chemical Management Partnership Projects through Collaboration of Government, Industry, and Public Interest Organizations

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More than 30% of pesticides in the former USSR were produced in excess of reasonable economic or production needs. Pesticides were assumed as a vital necessity and as an inevitable factor of agriculture production. Distribution of pesticides among different regions was made without any accounting for local environment and climate conditions, nothing to say about accounting for rates of their environmental detoxification. Besides that, in the majority of cases, pesticides were stored in unsuitable storage facilities.

At the same time, authorities withheld information on serious adverse health and environmental impacts of pesticides. Immediate positive effects of pesticide application obscured less evident long-term adverse environmental impacts of application of these chemicals - i.e. the fact that a newly cleared environmental niche may be immediately occupied by a new, potentially more dangerous population. Even more serious adverse effects of feckless application of pesticides were associated with migration of toxic substances in environmental media and accumulation of their toxic residues in drinking water, wild and agricultural plants, in food products of plant and animal origin and finally in human bodies.

According to the results of scientific studies, traces of organic chlorine pollutants were found in 85% - 97% of samples of breast milk of Armenian women. Detected trace quantities of POPs in breast milk are very low, but chronic exposure to these substances over long periods of time may cause increase in morbidity rates of population.

There are some available statistical data on a high incidence of children diseases in Azerbaijan (respiratory diseases, nervous, gastric-intestine, immune disorders, etc.), associated with pesticide contamination of breast milk, groundwater sources of drinking water, air, soil and some food products. Rural residents, who cultivate cotton, greenhouse vegetables, grapes, vegetables, tobacco, etc. are the most heavily affected.

The large scale application of chemicals in agriculture resulted in thousands of abandoned or dilapidated storage facilities (in the majority of cases, these facilities are located nearby water bodies) all over the former USSR region. After the recent decline of agricultural infrastructure, many storage facilities (as well as residual pesticides) became abandoned. In many cases, abandoned pesticides and fertilisers may be found nearby roads, in forests, ravines, nearby water bodies, etc. As at early 2003, more than 24 thousand tons of obsolete pesticides were identified in Russia only, many of these chemicals belong to highly toxic persistent substances and their storage conditions do not meet applicable requirements.

It is clear that it would be impossible to conduct a complete inventory of these chemicals without mobilisation of all sectors of the society. This statement was affirmed to be true in Cheliabinsk region of Russia which belongs to the leading regions of the Russian Federation in terms of generation and accumulation of toxic industrial waste (including waste, containing persistent organic pollutants). The region accumulates huge amounts of banned and obsolete pesticides. Regional authorities estimate their stockpiles as 182.430 tons. In the period from 1994 to 1996, 12 thousand tons of banned and obsolete pesticides were illegally disposed off at the territory of the oblast.

Accounting for intrinsic complexity of problems associated with toxic pollution in the region and intentions of authorities and NGOs to make a real difference, more than 40 representatives of NGOs actively participated in development of the Regional Environment and Health Action Program. In the course of the Program development they managed to focus their efforts on addressing priority issues and involve residents of remote areas, minor towns and restricted access zones to the Program development.

One of main sections of the Program is dedicated to chemical safety issues. The section focuses on public/community participation in primary inventory of stockpiles of banned and obsolete pesticides with further submission of these data to local authorities and regional State Administration for relevant response actions.

To facilitate NGO involvement into the identification of illegal storages of these hazardous chemicals Methodological Recommendations for non-governmental organizations on conducting primary inventory of obsolete and banned pesticides were prepared by Eco-Accord in cooperation with the Committee on Environment of the Russian State Parliament. This material was broadly used by NGOs in the countries and regions of the former USSR in their activities in the frame of the International POPs Elimination Project (IPEP). In Cheliabinsk region Methodological recommendations helped NGO identify 67.846 tons of banned and obsolete pesticides additionally to official data.

Aside from this superior result of primary inventory NGO in Cheliabinsk region under the leadership of Women's Network in the Urals identified the following facts:

There are 35 storage facilities at the territory of the oblast, that belong to different agricultural facilities, including 24 dilapidated facilities, 10 badly damaged ones and only one storage facility in a good technical order. 7 dilapidated storages are located within water protection zones. 12 storage facilities are derelict (including 7 dilapidated ones, and 5 badly damaged storage facilities). Pesticide storage facilities were mapped, the map of pesticide storages in the oblast contains such information as their locations, amounts of pesticides stored and their technical quality.

In the framework of this project, proposals for authorities on centralised storage of banned and obsolete pesticides and other agricultural chemicals at the territory of Chelyabinsk region and their transfer to "New Environmental Technologies" Co. (Moscow) for utilisation were prepared. In this connection, a site for collection of all pesticides and agricultural chemicals was selected (a specially equipped storage facility at the territory of Yesaulka village of Sosnovskiy district). The site was selected for several reasons, including: a convenient road network, well equipped specialised storage facilities, a railway platform for transportation of pesticides and other agricultural chemicals to other places for storage and utilisation.

The project participants conducted a meeting with workers of the storage facility, discussed contemporary situation, studied record-keeping procedures, registration and control of storage of pesticides and other agricultural chemicals.

The Government of Chelyabinsk Oblast contracted "MERIZ" Co. to collect and eliminate pesticides, with involvement of "New Environmental Technologies" Co. (Moscow). For these purposes, in 2005, RUR 4.765 million were allocated for utilisation of banned and obsolete pesticides.

In the course of the project implementation, the Office of Environmental Prosecutor of Chelyabinsk Oblast examined control of compliance of local self-government bodies of

Argyashskiy, Kunashskiy and Krasnoarmeiskiy districts with environmental requirements to safe management of hazardous waste, including banned and obsolete pesticides and other agricultural chemicals. Prosecutors identified cases of non-compliance with legislative requirements to production and consumption waste, safe management of pesticides and other agricultural chemicals, sanitary and epidemiological wellbeing of the population and local self-government.

The contemporary situation induced the project participants to submit their analytical memo to the Ministry of Radiation and Environmental Security of the Russian Federation. The memo described conditions of pesticide storage facilities in Chelyabinsk Oblast and contained a detailed map of these storages. Besides that, the memo contained substantiated recommendations on incorporation of activities for addressing problems of pesticide storage and utilisation into Chelyabinsk oblast program for improvement of environmental quality in the oblast for 2006 - 2010.

Recommendations of the project team were approved and supported by expert boards of the Russian Natural Resources Supervisory Service and the Russian Agricultural Supervisory Service and incorporated into the oblast--level program (finance allocations of up to RUR 70 million were stipulated).

This story is a good example of effective chemical management partnership project that helped to increase cooperation between state authorities, public and private sectors. Similar projects can be found in other countries of the former USSR. Nearly all of them were implemented in the frame of IPEP which facilitated NGO participation in national POPs inventory processes. In addition to valuable data collected by NGOs during their participation in identification of unauthorised storages of banned, obsolete and unmarked pesticides, important information was gathered during NGO participation in PCB inventory, evaluation of dioxin/furan and BFRs sources. Data received by NGOs was transferred to the regional/local authorities and state administration for the relevant response actions.