



Society for Sustainable Development



Documenting DDT Spraying, Pollution and Alternatives

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Executive Summary

Introduction

Dichlorodiphenyltrichloroethane (DDT) is an organo-chlorine that was synthesized in 1874, but its insecticidal properties were discovered in 1939. DDT was first used during World War II to combat malaria and typhus among civilians and troops. Subsequently it was used as an agricultural and household pesticide¹. DDT is currently listed in Annex B of the Stockholm Convention, with its production and/or use restricted for disease vector control purposes in accordance with related World Health Organization (WHO) recommendations and guidelines. Under the Convention, it is allowed to be used for vector control as per WHO's guidelines only by certain countries. India is one such country, and it reports that it is using DDT for prevention of vector borne diseases such as malaria, dengue and Kala-azar due to lack of suitable alternatives. It has an exemption for DDT use in vector control until 2022. The country also exports DDT to countries that have also taken the exemption to use it for vector control.

Study

Society for Sustainable Development in India conducted a study in the year 2019 to understand the extent of DDT usage for vector control and to identify its diversion to agriculture.

The team interviewed about 100 farmers in two districts (Karauli and Sawaimadhopur) in Rajasthan to understand the agricultural usage of DDT. Along with the survey, the team also organized four community discussion groups in the areas.

Study Findings

The study found that DDT is being extensively used by the Health Department in Rajasthan to prevent malaria. To provide protection from the disease, DDT is sprayed in every house of the village by the health department. It was noticed that the chemical is usually sprayed in higher quantities than required. It was being sprayed inside the houses of the villagers, however; more recently, it is only being sprayed outside the house and in the washrooms.

The department also sprays the insecticide prior to large gatherings during festivals/Melas. In a fair organized in June, 2019, approximately 450 Kg of DDT was sprayed at the location. For this purpose, 1 team comprising of 6 members were using two pumps and sprayed in 60 households in one day, as well as at the locations of the festivals.

The survey found that previously, the workers followed a practice of burying the used DDT container in an underground pit. However, now the chemical comes in a polybag which is reused by the workers for common daily purposes. This points to the lack of training provided to them to handle such a toxic chemical and the health hazards posed by mishandling of the packets containing DDT.

The survey also underscored the lack of occupational safety to the staff involved in DDT spraying. Earlier, the team assigned to spray DDT was supplied with soap, bucket, pump and a nozzle. However, currently they are not even supplied these items while spraying. This emphasizes the unsafe conditions that they are made to work in and raises questions over their occupational safety. There is a need to provide them with necessary gear to protect them from the health hazards that can occur during DDT spraying.

One of the objectives of the study was to observe the diversion of the chemical from vector control to the agricultural field. The findings indicated that the insecticide is no longer being used by the farmers for agricultural purposes. (All farmers were using DDT, but they stopped using it about 15 years ago,

¹ <http://chm.pops.int/Implementation/PesticidePOPs/DDT/Overview/tabid/378/Default.aspx>

because for 15 years DDT has not been available in the market). However, although the survey yields that DDT is banned and is not used directly, there are some speculations that it might be contained in the ingredients of some other chemical as the farmers generally do not know the name of the pesticides or insecticides that they purchase.

During the survey it was also observed that common people take DDT from the team to kill mosquitoes, termites, etc. Although this happens very irregularly and there is no document to prove this diversion, the misuse and mishandling raise concerns over the health impacts it may cause to the public.



Figure 1 DDT spraying container handled without PPE in an open space



Figure 2 DDT handling without any PPE