

## **ENVIRONMENTAL CODES OF PRACTICE**

### **NATIONAL VECTOR BORNE DISEASE CONTROL PROGRAMME**

#### **1 INTRODUCTION**

The National Vector Borne Diseases Control Programme (NVBDCP) is an umbrella programme for the prevention and control of vector borne diseases, jointly implemented by the Central Government and the States. These include malaria, kala-azar, lymphatic filariasis, Japanese encephalitis, and dengue. A part of the programme is being implemented with support from the World Bank, which includes the elimination of kala-azar and control of malaria in over 96 districts of seven states. The states which are covered under the World Bank funding are Bihar, West Bengal, Odisha, Jharkhand, Chhattisgarh, Madhya Pradesh and Andhra Pradesh.

#### **2 BACKGROUND OF THE PROJECT**

The implementation of the National Vector Borne Diseases Control Programme has a number of positive facets with respect to public health. However, the fact that use of chemicals during implementation of the programme can have negative impacts on community health and environment should also be taken into consideration. For example, the programme undertakes Indoor Residual Spraying for vector control to prevent occurrence of the disease. However, for IRS, DDT is used — which is a hazardous substance and can have adverse health impacts. Similarly, project personnel who are involved in loading/unloading, handling and spraying of the insecticides are also exposed to these chemicals. The Environmental Management Plan (EMP) implementation under the programme would aim to prevent, minimize and mitigate the adverse impacts of insecticide used under the VBD programme and to suggest measures for improvement in environmental condition.

The Environmental Codes of Practice developed under the programme contain a set of environmental codes of practice (ECOP) that can be implemented to address the environmental issues associated with the vector borne project and its associated activities as per the operational guidelines of the Directorate NVBDCP and the World Bank.

#### **3 OBJECTIVE OF THE DOCUMENT**

This document has been prepared to provide guidelines in implementing and incorporating environmental management practices to minimize adverse environmental impacts associated with the use of insecticides and other products under the National Vector Control Programme. The Codes of Practice aim to establish environmental management standards among all stakeholders involved in undertaking their various tasks and responsibilities for the Vector Borne Disease Control Project. This document serves as a guide on environmental safeguards which needs to be adopted in the activities under the programme and also as a guidance document for all the responsible stakeholders in the programme.

This document is intended for use of the stakeholders involved in the project in their day-to-day activities in environmental management of the vector borne disease control project. However, it can also be a source of information for other entities involved in the project and a training material for existing and new project employees.

#### **4 ORGANISATION OF THE DOCUMENT**

The Environment Codes of Practice (ECoP) developed for the National Vector Borne Diseases Control Programme is a collection of six codes of practice which may be used either independently or in conjunction with the associated codes of practice related to the activity. The six Environmental Codes of Practice that have been developed for the National Vector Borne Disease Control Project are as follows:

*ECoP 1: TRANSPORT OF INSECTICIDES FOR IRS ACTIVITIES*

*ECoP 2: STORAGE AND MANAGEMENT OF INSECTICIDES STOCK*

*ECoP 3: COMMUNITY RESPONSIBILITY DURING IRS*

*ECoP 4: USE AND MAINTENANCE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)*

*ECoP5: INDOOR RESIDUAL SPRAYING (IRS)*

*ECoP6: DISPOSAL OF WASTE WATER, EMPTY BAGS/CONTAINER AND BIO-MEDICAL WASTE*

These ECoPs have been chronologically developed covering the guidelines for different personnel, starting from transportation of the insecticides till the disposal of the waste generated in the process of the control programme. The ECoP on transportation includes guidelines for three different Phases — bulk transportation (from manufacturing units to the districts), small content transportation (from districts to the PHCs) and local transportation (from PHC to the spraying site). After transportation, the ECoP on storage deals with the guidelines for storages at different sites (district, PHCs and the sub-centres). This includes storage of the PPEs, equipment, as well as the empty bags and containers of insecticides to be disposed. Community awareness and preparedness for IRS operations is an important part for smooth manoeuvring of the IRS activities, especially in the rural areas of India. The ECoP on community responsibility deals with the basic dos and don'ts of the community during the IRS. IRS workers suffer maximum exposure to the insecticides being used during the IRS process. Their occupational risk & hazards from the program thus needs to be addressed. The PPE required for different types of personnel and the specification of the PPE have been defined in ECoP 4. ECoPs 5 discuss the use of protective equipment and the correct spraying techniques for IRS in detail. The guidance for environmental safeguard during planning, execution and post IRS operations are provided in the document. The safeguards to be adopted during IRS to prevent unwanted residue of insecticide on household goods, food, drinking water etc have been detailed. Through IRS operations, waste is generated in the form of waste water, empty bags and containers contaminated with residual insecticide. Keeping this in mind, ECoP 6 has been developed to provide guidelines on the disposal. This also includes disposal of bio-medical waste generated through the use of Rapid Diagnostic Kits (RDKs) for early diagnosis of malarial infection.