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International POPs Elimination Project

*Fostering Active and Efficient Civil Society Participation in
Preparation for Implementation of the Stockholm Convention*

Awareness Generation on POPs

ACTION

(Association for Rural and Tribal Development)

**Andhra Pradesh, India
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About the International POPs Elimination Project

On May 1, 2004, the International POPs Elimination Network (IPEN <http://www.ipen.org>) began a global NGO project called the International POPs Elimination Project (IPEP) in partnership with the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Program (UNEP). The Global Environment Facility (GEF) provided core funding for the project.

IPEP has three principal objectives:

- Encourage and enable NGOs in 40 developing and transitional countries to engage in activities that provide concrete and immediate contributions to country efforts in preparing for the implementation of the Stockholm Convention;
- Enhance the skills and knowledge of NGOs to help build their capacity as effective stakeholders in the Convention implementation process;
- Help establish regional and national NGO coordination and capacity in all regions of the world in support of longer term efforts to achieve chemical safety.

IPEP will support preparation of reports on country situation, hotspots, policy briefs, and regional activities. Three principal types of activities will be supported by IPEP: participation in the National Implementation Plan, training and awareness workshops, and public information and awareness campaigns.

For more information, please see <http://www.ipen.org>

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ABOUT THE ORGANISATION

ACTION, Association for Rural & Tribal Development is a non-government voluntary service organization working with an aim to lend a helping hand to the downtrodden people in society. Since its inception in 1988, ACTION has been concentrating all its efforts towards the development of weaker and deprived sections of the society. The organization is presently functioning in the coastal districts East Godavari and West Godavari of Andhra Pradesh, India.

The organization has since come a long way, operating presently in over 90 villages with a well-trained field force. The organization has acquired the capability of conducting training programs on different issues for the workforce of other organizations.

BACKGROUND

The use of Persistent Organic Pollutants (POPs) by agricultural farmers has been prevalent across the world. India has been one of the largest manufacturers as well as consumers of these pesticides. There are incidences of continued use of these chemicals in the country. Besides, there is an over reliance of this sector on pesticides and chemicals at large, and the ill effects of many still not known. It is estimated that the use of pesticides in India amounts to 336 gm per hectare. The situation in the state of Andhra Pradesh is no better. Over 90 percent of farmers have been using pesticides, including POPs, widely for the protection of their crops against pests.

It has been observed that the indiscriminate use of the POPs, including aldrin, dieldrin and endrin by agricultural farmers for control of pests in coastal Andhra Pradesh has been inflicting serious problems on health and the environment. POPs are known to have the potential to cause irreversible and debilitating damage on the entire ecosystem and the species living in the surroundings. These chemicals, once released into the environment have the tendency to remain in the atmosphere without degrading. They travel to distant areas by air, water and other means. They leave adverse toxic effects on the humans, wildlife and the environment. POPs enter the human body through the food chain, through inhalation of polluted air and dermal exposure. The toxins accumulate in fat and cause severe health problems.

ACTIVITY OBJECTIVES

Since lack of awareness among the farmers' community is one of the main reason for the continued use of POPs and other pesticides, there is a necessity to create awareness to minimize and curb the use of POPs. With this objective, ACTION, along with other NGOs, took up the task of creating awareness among the farmers about POPs and their effects on environment and human health.

ACTIVITIES OVERVIEW

- **Training of Trainers (TOT) on Persistent Organic Pollutants (POPs) and Pesticides at Bapatla**
Before the message could be further taken to the farmers, it was important to prepare a team that well understands the issue and could further disseminate it. External resource persons sometimes have the limitation of presenting the issue in a simple, easy to understand language and therefore it was found appropriate to identify members from among the participating NGOs who have a sound understanding of the community and the target groups as well as has the potential to take the issue forward. Eight individuals were identified and provided training on various issues concerning POPs.

The focus however was on the pesticides category of POPs since that was more relevant for their work.

For the purpose of imparting training to this group of trainers, external resource persons were identified and invited. These include Dr. P. Arjuna Rao, Professor and Head of the Department, Department of Entomology, Acharya Nagarjuna Agricultural College, Bapatla; Dr. Ravula Veera Raghavaiah, Professor and Head of the Department, Department of Agronomy, Acharya Nagarjuna Agricultural College, Bapatla; and Dr. V. Sankara Rao, Principal Scientist, Saline Water Scheme, Acharya Nagarjuna Agricultural College, Bapatla.

The trainers represented the following NGOs: ACTION, CREATORS, VIKASA, RAKSHANA, CJWS, APPLE and NATURE

In the Training of Trainers (TOT) workshop, the issues discussed included usage of Generation-I i.e. inorganic and botanical pesticides and Generation-II i.e. synthetic organic material.

The experts informed the trainers about the indiscriminate use of pesticides in Andhra Pradesh. They explained about the organochlorine group of pesticides and their persistence in nature. They gave a brief history of usage of pesticides in India and abroad and particularly in Andhra Pradesh. They viewed that Andhra Pradesh uses one tenth of the pesticides used in India on an average.

The resource persons viewed that POPs are polluting air, water and land and causing severe damage to human health and environment. They updated trainers on the frequently used POPs on various crops and apprised them of the varied techniques used for estimation of level of pesticides. They explained how human beings and wild life gets affected through the food chain. The resource persons further stated about the contamination of milk produced by animals grazing upon polluted grass. They also highlighted upon the effect of pesticides on the enzymatic activities and nitrogen mineralisation in soils.

The resource persons talked about the toxicity of pesticides to earthworms. They explained how POPs affect not only the target but also the surrounding living beings. They explained about the utility of earthworms in maintaining the fertility and porous character of the soil.

The expert resource personnel highlighted the necessity of shifting towards the use of natural herbicides, pesticides, organic manure and vermin-compost. They also emphasized that farmers should use pest-resistant varieties of seed. They discussed about the quality standards involved in the export of agricultural products. They stressed the issue of consulting the personnel of agriculture and pest control departments during the growing of crops. They at the end highlighted the necessity of creating awareness among the farmers and take their cooperation to reduce the use of POPs.

- **Formation of Core Group on POPs:**

The participants of the TOT namely, Mr. Subba Rao, Mr. Swamulu, Ms. Jyothirmayee, Mr. Ashok, Mr. Venkateswar Rao, Mr. Bhaskar, Ms. Vimala, Ms. Deepa, Mr. Gopal and Mr. Veerabhadra Rao formed a Core Group on POPs. This group was responsible for holding workshops at the community level.

- **Awareness Workshop**

The seven participating organizations organized workshops in their respective areas with the help of the Core Group on POPs targeted at the farmers. The objectives of these workshops were to create awareness among the farmer communities about persistent organic pollutants and other pesticides and

the impending threats as well as motivating them to shift towards safer and sustainable alternatives including organic farming.

Two-day workshops were organised at eleven locations across five districts namely East Godavari, Prakasam, Guntur, Nellore, and Visakhapatnam. These workshops were attended by an average of 50 participants each. The workshop covered issues such as extent of use of POPs and pesticides in the country, their adverse impacts of human health and environment and the available alternatives to reduce the threats.

Farmers were provided a brief description on the status of farming sector in India and the usage of POPs and other pesticides. The most commonly used POPs and pesticides in India were discussed along with information on pesticides which are banned in the developed countries but continue to be used in India.

Resource persons also explained the concept of the food chain to the farmers and described how pesticides sprayed on crops remain as residues on the leaves, seeds/ fruits as well as on the soil. Later, these residues enter the system of those who consume the food i.e. birds, animals and humans. The pesticides residues in the soil also drain out into the canals and affect organisms living in water. This in-turn affects human beings and birds, which eat fishes from such polluted water.

The ill effects, and the damages caused by POPs and pesticides were explained to the farmers elaborating on the harmful effects on the human body. They explained that on entering our bodies, these chemicals cause damage to the reproductive system and may result in sterility among males, general debility, retarded mental and physical growth of infants, rise in blood pressure, cancerous growths etc.

Likewise the damages that POPs and chemical pollutants cause to natural decomposers were also stressed upon. They were told how the earthworms decompose organic material and also make the soil porous, which further results in healthy growth of the crops. There is therefore a need for protecting these earthworms. However because of indiscriminate use of POPs and chemical pesticides, there is loss of micro organisms, which help maintain the fertility of the soil.

Resource persons explained to the farmers the advantages of eliminating/ minimizing the use of POPs and other pesticides by shifting towards the use of bio-pesticides. Farmers were informed how crops involving extensive use of pesticides and POPs are facing rejection in the foreign market. They explained to the farmers that the developed countries are following certain standards for importing of crops and therefore commercial crop producing farmers need to adhere to these standards to be in the competition. The farmers were also asked to seek advice from the Agriculture and Pest Control Department in their respective areas on the crop varieties suited to their land. Information on alternatives to chemicals pesticides was shared with the farmers. They were also informed about organic agricultural practices as a workable solution to the various problems caused by POPs and other pesticides.

At the end of each workshop an interactive session with the farmers was planned. Farmers shared their various concerns and sought advice. Participating farmers were of the opinion that the workshops have proved useful to them since they provided an insight to the hazards caused by these chemicals as well as presented before them the viable alternatives. Information such as the residues level and the quality standards preferred in the markets were beneficial for them. Need was felt to conduct similar workshops in other parts of the State. There was a lot of interest shown on learning about organic farming practices and majority of their queries were to seek more information on bio-pesticides.

OUTCOMES

The main objective of this activity was to create awareness among farmers on issues related to POPs. For the purpose a Core Group on POPs has been formed and members were provided training by the experts. The core group took the responsibility of raising awareness among the farmers by conducting awareness workshops. Eleven workshops were organized across five districts namely East Godavari, Prakasam, Guntur, Nellore, and Visakhapatnam and directly reached out to over 600 farmers. The participating farmers expressed the willingness to further share this information with other farmers. Thousands of farmers are therefore expected to benefit from these workshops indirectly. Workshops were particularly successful since they generated interest among the participants to know about the alternatives available to POPs and other harmful pesticides.

FUTURE PLANS

So far 11 workshops (in 11 mandals) have been organised with the aim of creating awareness among farmers on POPs. After interacting with the farmers from these mandals it is felt that conducting of such workshops at village panchayat level is essential. This would give an opportunity to a large number of farmers to participate in such workshops and learn about POPs and pesticide issues. This information would be equally helpful for them to meet the quality standards with regard to export of their produce and in turn help raise their economic standard.

In addition, information about bio-pesticides and organic farming practices would be disseminated widely since the farmers have expressed interest in learning more about these aspects. Therefore ACTION would focus on these as a follow up action to these workshops.

ANNEX 1 -- Summary of Activities

S. N.	Activity	Location	NGO	Date	Participants
1.	Training of Trainers on POPs and Pesticides	Bapatla		20 December 2005	Subba Rao, Swamulu, Jyothirmayee, Ashok, Venkateswar Rao, Bhaskar, Vimala, Deepa, Gopal and Veerabhadra Rao.
2.	Workshop for Awareness Generation Among Farming Communities on POPs	Thondangi, District East Godavari	ACTION	29-30 January 2006	45 farmers from Annavaram and Thondangi mandals.
3.	Workshop for Awareness Generation Among Farming Communities on POPs	Parachuru, District Prakasam	RAKSHANA	2-3 January 2006	60 Farmers
4.	Workshop for Awareness Generation Among Farming Communities on POPs	Inkollu, District Guntur	RAKSHANA	10-11 January 2006	52 Farmers
5.	Workshop for Awareness Generation Among Farming Communities on POPs	Pedamavidipalem, District Guntur	RAKSHANA	16-17 January 2006	47 Farmers
6.	Workshop for Awareness Generation Among Farming Communities on POPs	Prattipadu, District Guntur	RAKSHANA	20-21 January 2006	64 Farmers
7.	Workshop for Awareness Generation Among Farming Communities on POPs	Sullurpet, District Nellore	APPLE	2-3 February 2006	56 Farmers
8.	Workshop for Awareness Generation Among Farming Communities on POPs	Podalakur, District Nellore	CJWS	10-11 February 2006	46 Farmers
9.	Workshop for Awareness Generation Among Farming Communities on POPs	Korukonda District East Godavari	CREATORS	15-16 February 2006	70 Farmers
10.	Workshop for Awareness Generation Among Farming Communities on POPs	Madugala, District Visakhapatnam	VIKASA	6-7 January 2006	69 Farmers
11.	Workshop for Awareness Generation Among Farming Communities on POPs	Chodavaram, District Visakhapatnam	VIKASA	1-2 March 2006	45 Farmers
12.	Workshop for Awareness Generation Among Farming Communities on POPs	Gokavaram, District East Godavari	NATURE	7-8 March 2006	59 Farmers