

PESTICIDE RISK MANAGEMENT IN THE PACIFIC

“Aiming to promote sustainable agriculture and healthier production”

FAO has been actively promoting the concept of sustainable intensification of agriculture for many years. The need to reduce risks associated with food production from chemical inputs has never been more important. The pressure to feed an increasing population and access overseas markets is placing increasing pressure on developing countries to intensify agricultural production. Unless this process is sustainable and minimises risk to agricultural workers, the environment and the consumer any benefit will be short term and fail to meet our needs as we look forward.

The push for agriculture intensification in the past has often resulted in a rush to use increased levels of chemical inputs. Often this results in impacts which are not obvious at first. The improper use of chemical pesticides to control pest outbreaks can result in a number of problems which reduce productivity and food quality. Over application of pesticides can result in a build up of harmful pesticide residues in the final product which in turn makes it unsafe for consumption. This can in turn result in loss of access to export markets where residue levels are increasing monitored to ensure food safety. Poor management of pesticides can result in improper use with direct impacts on farm workers and their families. Poor storage can result in pesticides leaking into the environment damaging soil quality and productivity. A further consequence of poor storage is the spread of contamination to scarce ground water resources which are used not only for irrigation but are also the principle source of drinking water on many islands.

All of these issues illustrate the need for careful management and control of pesticide usage to ensure that the food produced is safe and that yields are increased through a programme of sustainable intensification which considers amongst other things issues related to soil fertility and water quality. FAO is committed to helping the countries in the Pacific region in meeting this challenge. There are already a significant number of projects implemented through the FAO Sub Regional Office for the Pacific based in Samoa. These projects look at a wide range of issues including the promotion of Organic Pesticides, promotion of Biological control, promotion of ecologically based pest management (EBPM), organic agriculture, access to export markets, and promotion of International Pesticide code of conduct and safe use of pesticides. Looking further forward FAO is also looking at supporting initiatives linked to the further promotion of low input agriculture in the islands and pesticide container management through FAO Technical Cooperative Programme (TCP) funding.



Assorted pesticide waste, Kiribati



Clean-up of pesticide wastes, Solomon Islands¹

To date there have been a series of previous projects related to improving pesticide management. The AUSAID funded *POPs in PICs*² project is just one example of how international assistance has resulted in the removal and environmentally sound disposal of over 130 tonnes of hazardous, persistent chemicals including significant amounts of old, obsolete pesticides. FAO is looking to build on these initiatives to avoid the accumulation of new stockpiles of obsolete pesticides as the pressure to intensify production increases.

FAO is, therefore, continuing to support countries in the Region in the area of pesticides risk management and sustainable production through a new initiative. FAO, in collaboration with UNEP, AFD and with financial support of the EC ACP Secretariat and the Global Environment Facility (GEF) are working together to assist countries to better manage chemicals including pesticides.

FAO Signs Agreement with EC for Pesticide Management in the Africa, Caribbean and Pacific Regions

Project Title: Capacity Building for the Implementation of Multi-lateral Environmental Agreements (MEAs) in African, Caribbean and Pacific (ACP) Countries: FAO Component on pesticide life cycle management

The EC funded project on Capacity Building for Implementation of MEAs in ACP countries is a partnership project comprising 3 components. Three UN Agencies (FAO, UNEP and UNCCC) are working together to ensure effective coordination of programme activities to assist countries in the three regions to better meet their obligations under the increasing numbers of MEAs.

In April 2009 FAO signed an agreement with the ACP Secretariat of the EC in support of pesticide life cycle management linked to obsolete pesticide disposal. The project will contribute approx. US\$1M to the issues related to pesticide management in the Pacific Region over the next three years. As funds are limited it has been agreed that activities will focus on priority issues in a series of demonstration / pilot scale projects. These projects will be implemented in countries where there is a history of pesticide usage and where problems have already been identified as part of previous projects. The project aims to leverage addition funding from other donors to allow roll-out of tools developed under the MEA component to the Region as a whole.

¹ Photographs of the POPs in PICs project completed 2008. Provided courtesy of GHD Ltd, Australia

² Persistent Organic Pollutants in Pacific Island Countries

Following consultation with representatives from the Ministries and Agriculture, Environment and Health from selected countries plus inputs from SPC and SPREP the Pacific component of the project has now been designed. The project will focus on the following priority areas:

1. Pesticide Legislation:

The aim is to provide clear guidance to all countries in the Region on the minimum requirements for pesticide legislation and regulation. This will be achieved through a combination of review of existing legislation in Fiji, Samoa, Solomon Islands, Tonga and Vanuatu. This will be followed by a process aimed at developing a single, standardised pesticide registration process which can be rolled out to all countries in the Region as recommended in the 2006 Regional Registrar of Pesticide Meeting in Auckland New Zealand. This will be supported by the establishment of pesticide management systems developed by FAO at SPC and through training of pesticide regulators.

2. Contaminated Site Assessment:

The *POPs in PICs* project highlighted a significant number of sites where pesticides and other chemicals have left visible contamination. There is a serious risk that overtime the contamination will spread with eventual contamination of valuable ground water resources. The project will therefore initiate a programme to systematically assess the level and type of contamination across sites already known to have been affected. Countries are encouraged to provide information on suspected contaminated sites to allow a complete evaluation of the risks across the region. This will be completed in partnership with SPREP and the University of the South Pacific in Fiji. Based on the findings additional resources will be mobilised to safeguard the highest risk sites.



Leaking pesticide containers, Kiribati³

3. Pesticide Container Management:

The use of pesticide containers for water and food storage is a problem in many regions of the world. The risks to public health from uncontrolled use of pesticide containers are significant and so the project will initially complete a feasibility study for pesticide container recycling based on

³ POPs in PICs project. Provided Courtesy of GHD Ltd, Australia

the existing plastics recycling programme in Samoa. The initiative will be followed up by a pilot scale project for container collection, decontamination and recycling which will provide a useful basis for container recycling in other countries in the Region.



Assortment of new pesticide containers awaiting sale, Samoa⁴

4. Communications and Awareness:

The communication of the risks associated with pesticide use to farmers and other end users of pesticides will form a critical aspect of the project in the Pacific Region. Based on communications work done in other Regions a comprehensive communications strategy related to pesticide risk management will be developed in collaboration with civil society and NGO groups. In the short term the project will focus on developing a strategy and communications materials for use in the Solomon Islands and Vanuatu. Based on an evaluation of the success in the delivery of the strategy the materials will then be made available to other countries in the Region for adaptation and translation as needed.

5. Promotion of Alternatives to Chemical Pesticides:

The need for the sustainable intensification of production will require a renewed emphasis on the adoption of production strategies which do not rely on large amounts of chemical inputs e.g. the use of plant extracts like Derris roots, soapy water, etc. The promotion of strategies such as Integrated Pesticide Management, Conservation Agriculture and Organic Production can all assist in meeting this objective. Currently there are a large number of initiatives focusing on the need to boost production. The project will therefore review all the existing initiatives with an aim to identify a series of opportunities for development of projects which will be supported through additional support including FAO TCP resources.

⁴ Taken in 2009 during FAO site visit to pesticide distributor, Samoa

FAO, UNEP and AFD Collaborate on Chemicals Management in the Pacific

FAO and UNEP have developed, through the GEF Pacific Alliance for Sustainability, a joint project related to pesticides and chemicals management in the Pacific. The project entitled “Pacific POPs release reduction through Improved Management of Solid and Hazardous wastes” was formally submitted to GEF in January 2010. The project has been included in the March 2010 intercessional work programme and *Project Preparation Phase* is scheduled to be completed in late 2010. The project will support FAOs initiatives on contaminated site remediation and container management initiated under the MEA project. Other components of the project managed under UNEP and SPREP will focus on issues related to capacity development for ratification of the chemical conventions⁵, the development of training tools for waste management (solid, hazardous, oily and organic) and the development of a POPs prevention and management strategy for the future. AFD will support in the areas of waste oil recycling and support of strategic studies.

The implementation phase of the project is scheduled to start in early 2011. This will be reliant on the project securing the necessary co-finance to support the GEF contribution. FAO and UNEP continue to work with the donor community in the Region and internationally to obtain the necessary support to this important, long-term initiative.

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⁵ The Basel, Rotterdam and Stockholm Conventions are commonly referred to as the Chemicals Conventions.