Seventh FAO Consultation

on

Prevention and Disposal of Obsolete, Banned and Unwanted Pesticide Stocks

Rome, 8-9 September 2004

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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Group Pictures of participants

Participants in the 7th Consultation
9 September 2004

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Abbreviations

AfDB	African Development Bank
AMCEN	African Ministerial Conference on the Environment
ASP	African Stockpiles Programme
AU	African Union
BCCC	The Basel Convention Coordinating Centre
BCD	Base Catalysed Dechlorination
BCRCs	Basel Convention Regional Centres
CLI	Crop Life International
COP	Conference of Parties
DANIDA	Development Cooperation Agency of the Government of Denmark
ECA	Economic Commission for Africa
EECCA	Easter Europe, Caucasus and Central Asia
EPA	Environmental Protection Agency (Authority)
ESM	Environmentally Sound Management
ESM	Environmental System Management (SBC)
FAO/TCP	The FAO Technical Cooperative Programme
GEF	Global Environmental Facility
IARC	International Agency for Research on Cancer (i.e. part of WHO)
IDIS	Inventory Data Information System
IFCS	Intergovernmental Forum on Chemical Safety
IHPA	International HCH and Pesticides Association
INC	Inter-Governmental Negotiating Committee
IPCS	International Programme on Chemical Safety
IW	International Waters
JMPR	Joint (FAO/WHO) Meetings on Pesticide Residues (i.e. concerned with maximum Pesticide Levels (MRLs) in Food and the Environment)
MADER	Ministry of Agriculture and Rural Development (Mozambique)
MoARD	Ministry of Agriculture and Rural Development (Ethiopia)
MCA	Millennium Challenge Assistance
MCC	Millennium Challenge Corporation
NATO	North Atlantic Treaty Organization
NEPAD	New Partnership for African's Development
NGO	Non Governmental Organization
NIP	National Implementation Plan
NPCC	National Project Coordination Committee
OECD	Organization for Economic Cooperation and Development
OEWG	Open Ended Working Group
OP	Obsolete pesticides
PAN	Pesticide Action Network
PER	Pesticide Exposure Reporting System
POP	Persistent Organic Pollutants
PSC	Project Steering Committee
Qty	Quantity
RBA	Regional Bureau of Agriculture
RBA	Regional Based Assessment (of Persistence of Toxic Substances)
SAICM	Strategic Approach to International Chemical Management
SBC	Secretariat of the Basel Convention
Sida	Swedish International Development Agency
SPREP	South Pacific Regional Environmental Programme
STAC	Scientific and Technical Advisory Committee

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TA	Technical Assistance
TSU	Technical Support Unit
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Information on Training and Research
USAID	United States Agency for International Development
UTF	Unilateral Trust Fund
WB	World Bank
WHO	World Health Organization
WWF	World Wildlife Fund

Background note

Obsolete, banned and unwanted pesticide stocks continue to pose serious hazards to public health and the environment. Contamination of soil and valuable water resources is a common occurrence and is widespread. Hundreds of millions of empty contaminated pesticide containers of all sizes and types are left at the farm gate and/or on the streets, scattered on open municipality waste dumping sites annually with little or no attention to their safe disposal. The situation in most cases is out of control and is therefore escalating. The gravity of the problem is more serious and urgent in developing countries where there is neither awareness, nor facilities for disposal, no expertise and no financial resources for addressing the problem. Almost all the countries in the developing world lack the awareness of the inherent danger of pesticides and related chemicals and they are nowhere near to addressing the problem and thus in the absence of alternatives often turn to FAO for assistance, advice and guidance.

FAO and other agencies have demonstrated that given the technical support, financial resources, appropriate guidance and follow up, obsolete pesticides can be destroyed in a safe and environmentally sound manner at manageable costs and at the same time future accumulation of stocks can be avoided. Since the inception of the FAO Global Programme on obsolete pesticides in the early 1990s, only a small fraction of the existing stocks have been removed and only from a few countries in Africa and the Near East. But fortunately a growing number of agencies have begun showing increased interest in support of disposal activities and related operations. But that alone is not enough unless such interest is enhanced and followed up aggressively by all stakeholders and affected governments to ensure adequate momentum generating more commitments. There is no doubt, progress has been made in various fronts but there still remain hundreds of thousands of tonnes of obsolete stocks that should be removed. As more and more stocks are declared almost daily from various directions, the total estimated stocks in the developing world are on the increase. The extent and intensity of environmental damage and quantities involved aren't totally clear and therefore these are matters that yet require much larger resources and a concerted global effort so as to have a consolidated global database and reliable information. Greater capacity will be required to tackle the problem worldwide despite the fact that some preliminary activities such as survey and taking inventories have been initiated in many countries. Thanks should go to those countries and donors that have been most generous and have supported the FAO Global Programme and the removal of obsolete stocks from a number of seriously affected countries.

Since 1994, FAO has operated a project, funded by the Government of the Netherlands, for the prevention of accumulation and disposal of obsolete stocks in Africa and the Near East. The FAO project collected and compiled data on obsolete pesticide stocks from these regions; maintained a database, reviewed and assessed disposal technologies; produced several technical guidelines; conducted pilot disposal operations and helped in facilitating and co-ordinating international efforts in disposal and related operations. Such efforts were instrumental to the formation and establishment of the strategic partnership of the Africa Stockpiles Programme (ASP) whose anticipated operational success is so much desired. Among others the FAO's efforts in bringing together all concerned stakeholders was demonstrated through the organisation of regular donor consultations aimed at enhancing both collaboration and co-ordination among all interested groups. FAO also took advantage of the media to inform the world both about the seriousness of the problem and the need for urgent solutions. The six FAO Consultations and developments since then provide the basis for organizing the 7th FAO Consultation. This meeting should help us to lay the foundations for additional and stronger alliances and strengthen collaboration among stakeholders

thereby ensuring wider comprehension of the extent of the problem and realization that the dangers of obsolete and banned pesticides pervading our environment require complex solutions. FAO recognizes the need for collaboration and actively seeks and encourages ways of working with all concerned so that the existing global problem can be minimized and eliminated.

Objective of the seventh Consultation

The purpose of the seventh Consultation, like the six preceding meetings, is to review developments, to highlight progress achieved in implementation of on going projects in various countries and to update information with a view to considering the possible expansion of feasible projects and programmes; to discuss administrative and operational modalities on disposal operations. Moreover, the Consultation should offer participants the possibility to exchange information and experiences with each other regarding obsolete stocks, disposal activities, and related matters of common interest.

Presentations by participants

Presentations and discussions generated from specialized agencies, Government representatives, donors and others on their ongoing activities or new initiatives in the field of obsolete pesticides and in related areas will be of significant value to each other and to others not able to participate in the meeting.

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Opening Speech

Dr. Mahmoud SOLH
Director
Plant Production and Protection Division
FAO, Rome

On behalf of the Director General of FAO, Dr Jacques Diouf, I welcome you to the seventh FAO consultation on the prevention and disposal of obsolete pesticides.

FAO started its programme on the prevention and disposal of obsolete pesticides ten years ago in response to requests from several of its member countries. Many of the stockpiles dealt with in the early stages of the programme resulted from chemicals used for the control of locusts. It is a sad irony that today many of the same countries are facing the spectre of fresh locust swarms, and that in the absence of alternatives that are acceptable to the countries; once again chemical pesticides are being widely applied in an effort to protect crops. This time however, we hope that lessons have been learned and that new stockpiles of unwanted and obsolete pesticides will not be created in the aftermath of the locust control efforts.

Significant progress has been made since the last FAO consultation on the prevention and disposal of obsolete pesticides in September 2002. Just one month after our meeting, in October 2002, the Global Environment Facility approved a $25 million grant to the first phase of the Africa Stockpiles Programme. This grant validates the efforts of FAO over the past decade in raising awareness to the serious problems of obsolete pesticides in developing countries. The FAO team have worked in collaboration with other partners in the Africa Stockpiles Programme to bring the programme to fruition. The country projects for the first phase of the ASP were ready to start in July 2003. It is a frustration to us and to the countries that we are not yet able to start work on the ground. On the matter of GEF fund mobilization for the ASP, FAO is currently dependent on the World Bank whose approval is eagerly awaited.

While working to implement the ASP, we have continued to respond to requests from its member states for assistance in addressing their obsolete pesticides. Responses may vary from the provision of one of our guidance documents from the existing and expanding library of topics, to direct intervention in the design and implementation of a national project for the prevention and elimination of obsolete pesticides. Examples include final elimination of obsolete pesticides and implementation of an innovative soil remediation project in Yemen, training of trainers for inventory and safeguarding of obsolete pesticide for African countries, and visits to Colombia, Algeria and Syria to provide guidance on the effective prevention and elimination of obsolete pesticides.

At this point I would like to stress that I am intentionally making specific reference to prevention alongside each reference to elimination or disposal of obsolete pesticide

stockpiles. The existence of obsolete pesticide stockpiles is symptomatic of inadequate management of pesticides, poor supply and distribution regimes, over reliance and poor practices in use and waste management. In short the existence of obsolete pesticides is a reflection of inadequate application of the International Code of Conduct on the Distribution and Use of Pesticides that was updated and approved by FAO Conference in November 2003.

When FAO works to assist countries in removing their obsolete pesticides it is not merely a hazardous waste disposal exercise. Rather this highly specialized and hazardous work should be seen as a trigger for a comprehensive analysis of the way in which chemical pesticides are used and managed in these countries. Such an analysis then leads to the design and implementation of specific measures to address weaknesses in each country.

This is the model that has been followed in each of the activities carried out by the project team. In the two years that have passed since the last consultation on obsolete pesticide prevention and disposal interventions have been made in Algeria, Ethiopia, Eritrea, Mozambique and Tanzania in Africa; Colombia, Bolivia and Paraguay in Latin America; China, Philippines and India in Asia; and Syria and Yemen in the Near East. In addition regional training sessions have been held in Ecuador for Latin America and in Tanzania for Africa with others planned in Bolivia to support activities in Latin America and in Thailand to support activities in Asia. The extensive experience gained in these and previous FAO led activities has also been applied to the development of country projects in the framework of the Africa Stockpiles Programme. Thus the second phase of cleanup and prevention in Ethiopia and comprehensive programmes in Mali, Morocco, South Africa, Tanzania and Tunisia have been designed and await implementation when the World Bank approves the programme.

We are also developing new tools and methods to deal with the very serious health and environmental problems faced by countries and their populations.

One important problem that commonly accompanies the presence of obsolete pesticides is that of soil contamination from pesticides. Such contamination not only pollutes land that may be used to produce food crops, but can also reach ground and surface waters used for drinking, irrigation, fisheries and recreation. In Yemen FAO has supported for the first time the application of on site soil remediation techniques where buried pesticides seriously contaminated farmland. We await the results of this trial with interest and are considering the use of similar techniques in Mali and Tanzania where severe soil contamination has occurred. We will then be able to offer solutions to countries where no solutions were previously available.

In countries where obsolete pesticides are widely dispersed and resources to deal with the problem are limited, it is important to be able to prioritise high-risk sites for action. FAO has developed risk assessment tools that will now form an integral component of the initial inventory of obsolete pesticides that must precede any remedial action.

Knowing who to turn to for technical assistance when specialist services are required is also important. We have therefore created a database of service providers that is currently being expanded in collaboration with the Secretariat of the Basel Convention to include provides in Asia and Latin America in the existing list of European and North American companies.

Additional guidelines are in preparation on the management of empty pesticide containers and on monitoring of national obsolete pesticide projects to ensure that appropriately high standards are maintained in all activities. Similarly, some of the guidance and information produced in earlier phases of the FAO Programme are in need of update and this work has commenced with a revision of the guidelines on the disposal of bulk quantities of obsolete

pesticides and with a redesign of the programme website, both of which will be completed shortly.

In summary, at the opening of this seventh FAO consultation on the prevention and disposal of obsolete pesticides, we are witnessing an unprecedented level and range of activities in response to an increasing demand from FAO member states for support in this area.

However, this positive picture of our activities must be accompanied by a warning message. Funding for the FAO Programme on the Prevention and Disposal of Obsolete Pesticides will be completely depleted by the end of the year 2004. All that will remain after this time is a core technical support unit for the Africa Stockpiles Programme. This unit will be funded to work only in ASP supported countries and this of course will be limited to Africa.

What of Asia, Latin America and the Caribbean, the Near East, Eastern Europe and Central Asia? Without additional funds, the project team will be forced to turn away requests for assistance from countries in these regions.

We must express our gratitude to those organisations that have generously funded the activities of this programme since 1994. First among these must be the Netherlands which has funded the programme over three phases. The United States provided funds for emergency interventions which has supported important activities in a number of countries. This emergency fund is set to continue through the generosity of the US Office of Foreign Disaster Assistance (OFDA). The Government of Japan provided funds for work in Asia and this has helped in a number of country specific and regional activities, and the UNEP Chemicals provided funds for initiation of work in Latin America.

The programme must be funded to continue its work. I call upon the participants in this meeting to consider how this important programme can continue to serve our Member States.

In closing I wish you a successful meeting and an enjoyable stay in Rome.

Introduction to the 7th FAO Consultation

Mark DAVIS
Coordinator and Chief Technical Advisor
Global Programme
Obsolete pesticides
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The theme of the meeting

A number of themes will run through the presentations and discussions that will make up this meeting. These can be condensed into four key themes which are:

- That demand for action on obsolete pesticides is growing;
- That FAO plays a key role in major initiatives to address obsolete pesticides;
- That technical and policy guidance on obsolete pesticides is required and is being provided by FAO;
- And discussions on future plans and prospects for FAO work in this area.

Demand for action is growing

One of the results of FAO's work over the past decade to raise awareness and understanding on the issues of obsolete pesticides, is that now many countries and international organisations are calling for action to remedy the situation and prevent its recurrence.

Almost on a weekly basis, the project office received requests from countries for guidance and assistance in dealing with their obsolete pesticides. FAO is now recognised as the centre of expertise and experience and is therefore a focus for enquiries. While the project team is able to respond with guidance material and simple responses to technical questions, it is not possible to provide all the support that is demanded due to budget and personnel constraints. This is likely to be an increasing problem as time goes on and available budgets are restricted to specific projects or regions, such as the ASP in Africa. Other regions such as Latin America, Asia, the Near East and Easter Europe have no operational budgets associated with them and therefore the service that can be provided to countries in these regions is limited.

Nevertheless, FAO has so far made direct interventions in 13 countries to assist with the inventory, safeguarding, disposal and prevention of obsolete pesticides. Other projects are in the planning and development stages and it is anticipated that, excluding the ASP projects, FAO will support an additional 4-6 country projects in the coming year. No other organisation is operating at this scale, and it is probable that without the support of FAO significantly less would be achieved in remedying the problems caused by obsolete pesticides globally.

FAO also plays a major role in key relevant international initiatives such as the Stockholm Convention; Intergovernmental Forum on Chemical Safety, (IFCS); revision of the FAO International Code of Conduct on Distribution and Use of Pesticides; the New Partnership for Africa's Development, (NEPAD); African Ministerial Conference on the Environment (AMCEN); International HCH and Pesticides Association (IHPA) Forum. In addition the FAO Obsolete Pesticides Programme regularly interacts with and responds to requests from other international and regional organisations including UN agencies, NGOs, private sector organisations and others.

Through these engagements and interventions FAO ensures that the issues of obsolete pesticides remain on the international agenda and are addressed in an appropriate manner which is in keeping with regulatory requirements, best practice and lessons learned through extensive experience.

FAO's role in the Global Programme of obsolete pesticides

FAO plays leading roles in several major initiatives including:

- the Africa Stockpiles Programme – FAO was one of the initiating partners of the ASP and has contributed an estimated $850,000 – 1,000,000 in time, travel costs, expertise, documentation and materials to the development of the ASP. FAO continues to play a central role in the development, planning and imminent implementation of the ASP and will provide the Technical Support Unit to the country projects and the programme when is starts operations early in 2005.
- National Projects for the prevention and disposal of obsolete pesticides – FAO assists countries in the development of projects, securing funding and implementation of these projects. Currently our team is operating in Paraguay, Syria, Mozambique, Yemen and Ethiopia. Assistance in project design and development and funding is being provided to Bolivia, Eritrea, Mozambique, Somalia and Trinidad and Tobago.
- Regional trainings at various levels have been provided in Africa and are planned for South America in November this year and in South East Asia for early 2005.
- Eastern Europe, Caucasus and Central Asia (EECCA) is a region where volumes of obsolete pesticide stockpiles dwarf any other stockpiles found elsewhere in the world. Concerted action is urgently needed in this region and FAO is developing a GEF Medium Sized Project in collaboration with IHPA and other UN agencies to help countries to address their obsolete pesticides problems effectively.

Technical and Policy Guidance

As a component of it programme activities, FAO has developed and provides technical and policy advice and guidance to countries on various aspects of obsolete pesticide prevention and disposal. Eleven guidance documents have been published to date and a comprehensive training programme on inventory, safeguarding and environmental assessment has been developed. Additional guidance documents and tools are under development and will soon be made available to countries and other organisations. These include:

- Environmental Assessment – a toolkit for risk ranking of pesticide storage sites on the basis of the materials held at each location, the condition of the storage site and the surrounding environment. This has been developed as a tool integrated with additional tools for planning of interim storage and transportation of obsolete pesticides. A more comprehensive report on these tools is given later in the consultation by their author. The tools will be published in 2005.
- Service Provider Database – a database containing the results of an international survey carried out by FAO to identify and record companies and organisations providing services related to the disposal of obsolete pesticides. The first survey covered mainly Europe, USA, and other OECD countries. Additional surveys are underway in collaboration with the Secretariat of the Basel Convention to cover Asia and Latin America. A more comprehensive report of this activity will be given by the consultant commissioned to carry out the work later in the consultation.
- FAO has led the way in independent monitoring of obsolete pesticide prevention and disposal projects. With the assistance of the partner organisations that have supported

this work, FAO intends to publish guidelines on independent monitoring that will be used in ASP projects and other similar projects elsewhere.

- Container management is an issue which is common to all countries but solutions are lacking. FAO is working to develop viable guidance for developing countries on techniques that can be used to manage empty pesticide containers. In doing so FAO is collaborating closely with other international organisations and with successful container management projects that have been developed.
- FAO developed comprehensive training tools on inventory, safeguarding and environmental assessment of obsolete pesticides. The training has been delivered in national training sessions in about 10 countries, and in regional training sessions in Africa and Latin America with additional sessions planned for Latin America and Asia. The training packages are in constant evolution, and have been published already as an FAO guidance document. However, due to their frequent updates it is planned to make the training available in electronic form which can be easily updated.
- Fao has commissioned and collected data from preliminary inventories of obsolete pesticides in 86 countries worldwide. As new information is generated it is updated and stored. New tools are also under development for data collection and storage. In addition, information about activities in countries around the world is collected and will eventually be made available through the revised FAO website on obsolete pesticides.
- A number of the existing guidance documents are now several years old and in need of update or revision. This task is gradually being undertaken and the first revision has almost been completed on the guidelines for destruction of bulk quantities of obsolete pesticides.

Future plans and prospects

FAO will continue to work on the topics it has developed to support countries in identifying, preventing and disposing of their obsolete pesticide stocks. Specifically in the coming months the FAO project team will:

- Provide the Technical Support Unit (TSU) to ASP country projects and at programme level, ensuring that all technical aspects are executed in accordance with appropriate international laws ands standards, and that countries receive the technical assistance they require as and when it is needed.
- Develop a project that will help to coordinate and support activities in the countries of Eastern Europe, Caucasus and Central Asia (EECCA) for submission to GEF. The project will be developed in collaboration with the International HCH and Pesticides Association and in consultation with other UN and bilateral agencies operating on similar topics in the region.
- Provide Training of trainers (ToT) in inventory, safeguarding and environmental assessment of obsolete pesticides in Latin America and Asia.
- Continue to provide direct technical support to projects in a number of countries where projects are underway (Mozambique, Syria, Ethiopia, Yemen) or under development (Paraguay, Bolivia, Eritrea)
- Continue or initiate activities to pilot new technologies and methods for the treatment of obsolete pesticides and contaminated materials such as soil and techniques for preventing future accumulation of obsolete pesticides or pesticide related adverse impacts on health and the environment.
- Maintain and enhance collaboration with the relevant stakeholders working in areas related to obsolete pesticide stocks,

Key issues and constraints

A number of issues constrain the continued activity and realization of the desired work programme.

The first of these is the continued delay in the initiation of Africa Stockpiles Programme activities. The delays are entirely out of the control of FAO yet have led to the complete exhaustion of funds available to the FAO programme. If the ASP does not start before the end of 2004, thereby allowing a flow of new funds to the FAO project, then the positions of programme staff and the continued operation of the programme is in jeopardy.

It should be noted that the FAO programme has committed itself to the development and success of the ASP to such an extent, that not only has almost $1 million been contributed in cash and in kind to the process, but little effort has been put into developing alternative programmes and securing funds for them as it was believed that the ASP would be virtually all encompassing and would allow little capacity for additional activities.

The delays currently encountered are the responsibility of the World Bank acting as Implementing Agency for mobilization of the $25 million GEF grant to the ASP. Despite all efforts, it has not been possible to accelerate the processes within the Bank that will gain earlier approval of the project and hence release funds to Fao or the countries to begin operations.

The Africa Stockpiles Programme on obsolete pesticides in Africa

Mark DAVIS
Coordinator and Chief Technical Advisor
Global Programme
Obsolete pesticides
FAO/Rome

The Work of FAO

FAO has track record of 10-years global activity on obsolete pesticides since it first established a programme in 1994 following repeated requests from member countries. During this period FAO has focused on (a) awareness raising, (b) provision of technical guidance and guidelines, (c) Training of national and regional experts in technical aspects of obsolete pesticide prevention and disposal, and (d) development, coordination and management of projects in at least 15 countries

Aims of the ASP

The prime objectives of the ASP are:
To identify, remove and safely dispose of existing obsolete pesticide stockpiles
To put in place measures to prevent any re-accumulation of new obsolete pesticide stocks
These objectives have equal status and are to be met in all 53 African countries over an estimated period of 10 to 15 years.

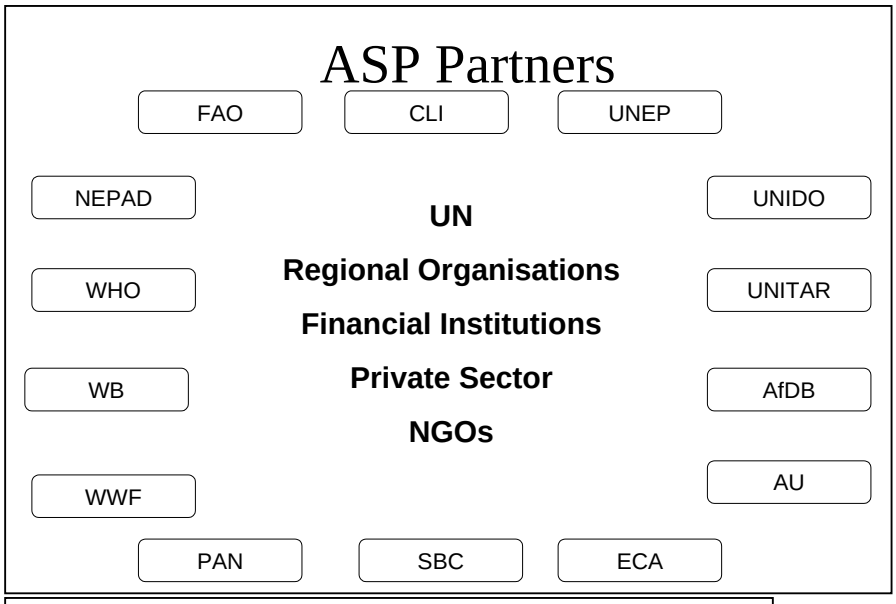
ASP Structure

The ASP institutionally has been developed and will be implemented by a strategic partnership of organisations (see below). This partnership recognises the respective strengths of each partner while also acknowledging that no single partner could effectively implement a programme of the scale and complexity of the ASP alone.

The programme is also phased to allow progressive expansion of activities as capacity is built in the region and in the organisations supporting the ASP. Each phase will last 3 to 4 years and will comprise a number of country projects, cross cutting activities and programme level support components. It is estimated that the programme will be completed in 3 to 4 phases. Phase-1 is expected to started this year (2004) or early in 2005.

ASP Partners

The ASP partners include an amalgam of a number of UN Regional Organizations, Financial Institutions, Private Sector, NGOs presented below in a format showing linked relationship:



Note: For the meaning of acronyms refer to the abbreviations

The Role of FAO in ASP

FAO has been a key development partner in the Asp from its earliest days. Much of the programme was designed around data gathered by FAO, project design concepts developed by FAO and technical and operational guidance produced by FAO. FAO has raised a significant proportion of the funds that will be used to implement phase I of the ASP and has also contributed close to $1 million in cash and in kind towards the development of phase I of the ASP.

As the ASP commences activities, FAO will provide the Technical Support Unit (TSU) for the programme. The role of the TSU will be to support countries in executing their national projects for prevention and disposal of obsolete pesticides, ensuring that technical support is provided as and when it is needed, that technical inputs to countries from various sources are coordinated.

In addition the TSU has and will continue to take the lead in developing projects for countries participating in the ASP. FAO led the development of project in the seven countries participating in ASP Phase I – P1 (the initial project) and is planning to work in an additional eight countries during the first year of activities to develop projects for the prevention and preparation for disposal of obsolete pesticides. These eight countries will form the so-called ASP Phase I – P2 project.

In some cases funds raised for country projects with the assistance of FAO are also managed through FAO. This is either at the request of the donor or the recipient country. Where this is the case it is an additional role undertaken by the TSU.

The TSU will also develop and coordinate the technical monitoring and evaluation programme and support countries in its implementation to ensure that activities are

completed in a safe, effective, legal and acceptable manner on behalf of the ASP and its partners.

Phase-I country projects will focus on the following two groups of countries aiming at specific tasks to be achieved.

P1 - Disposal and Prevention		P2 - Prevention and preparation for disposal	
No	Country	No	Country to be selected from
1.	Ethiopia	1.	Benin
2.	Tanzania	2.	Botswana
3.	Mali	3.	Cameroon
4.	Morocco	4.	Côte d'Ivoire
5.	Tunisia	5.	Egypt
6.	South Africa	6.	Eritrea
		7.	Ghana
		8.	Lesotho
		9.	Mozambique
		10	Nigeria
		11	Rwanda
		12	Senegal

Budgets and funding

The total budget for ASP phase I – P1 is approximately U$50.6M which is broken down as follows:

Areas of expenditure	US$ Million
Country projects:	40.0
Preparation projects:	2.5
Cross cutting activities:	3.5
Technical support unit:	3.5
Coordination unit	1.1

Sufficient funds have been secured for P1 with a $25 million grant from GEF of which approximately $23.5 million will be used in P1 and $1.5 million will be held over to P2. The GEF grant is matched by contributions from several donors including Belgium, Canada, CLI, France, Finland, Japan, Netherlands and Sweden. An additional estimated $17-18 million will be needed to fully realise P2.

The timetable for development of the ASP is summarized as follows:

Date	Task to be undertaken
December 2000	Developing concept
October 2002	GEF approval of $25m
2002-2003	FAO develops country projects
2003-2004	World Bank appraisal process
Jan 2005	Bank approval
Spring 2005	Project launch

Summary

The ASP is an evolution of the existing project at FAO. FAO will provide technical support and coordination for ASP country projects. This represents significant expansion in work but simultaneously FAO will also continue to work globally assisting other countries although such undertaking is subject to availability of funding. The cost of the FAO basic programme is approximately US$ 1.5 million per year.

Country Project Summaries

Introduction

This report covers the World Bank (WB) appraisal process, the status of developments in Mali, Morocco, Tunisia, Nigeria, Ethiopia, South Africa, Tanzania and related topics.

World Bank appraisal process

Country projects were drafted in May 2003 but appraisal was delayed owing to WB internal processes. Actual appraisal missions by FAO, WB and Crop Life international (CLI) took place in March 2004. The appraisal examined the technical and financial aspects, finalized the project budgets and reworked the budgets in May 2004 taking into consideration the fact that less funding was available than was anticipated at the outset.

All anticipated country budgets were reduced significantly including the scope of activities. Subsequently a revised Aide Mémoire was produced in August 2004. Negotiations are scheduled to start in October 2004 and subsequently the date for the WB approval is expected to take place in January 2005.

Mali

In Mali there is about 500 tonnes obsolete pesticides mostly of which were leftover from locust use and cotton production. There are 3 to 7 heavily contaminated sites and there is a need for urgent and extensive prevention programme.

Estimated cost breakdown necessary for the management of stocks in Mali

Item	Cost in US$ M
Management	1.590
Pesticide disposal	2.253
Soils	3.540
Prevention and capacity building	0.753
Total	8.146

Below is shown limited examples of bad conditions of obsolete pesticides

Morocco

In Morocco about 870 tonnes obsolete pesticides exist. The Prevention programme will mainly focus on training. Request for contaminated site remediation has been excluded from the project in order to standardize the approach taken in all countries.

The bulk of obsolete pesticides in Morocco were meant for locust stocks and are well managed in good warehouses. Strategic stocks for locust control are still kept in large quantities and unless used or rotated regularly the stocks might become obsolete. The current locust campaign is of course leading to wide scale use of pesticides and hence current strategic stocks will be depleted. Nevertheless, the ongoing policy in Morocco is to hold large strategic stocks of pesticides.

Estimated cost breakdown necessary for the management of stocks in Morocco

Item	Cost in US$ M
Management	0.477
Pesticide disposal	2.850
Soils	0.100
Prevention and capacity building	1.218
Total	4.645

Tunisia

In Tunisia it estimated that about 1,200 tonnes obsolete pesticides exist. The Prevention programme will mainly focus on training. Like Morocco and Mali, the current locust campaign may alter the situation of stocks issues and problems

Estimated cost breakdown necessary for the management of stocks in Tunisia

Item	Cost in US$ M
Management	0.678
Pesticide disposal	3.980
Soils	0.000
Prevention and capacity building	0.348
Total	5.184

Nigeria

In Nigeria it has not been clear as to what quantities of stocks exist in the country. Inventory of current stockpiles indicates very little since only a very small fraction of survey activities had been possible to conduct. There is a need for a design of a project for appropriate inventory and for implementation of prevention programme followed by disposal in ASP Phase II activities.

Limited example of expired pesticides in Nigeria are shown below

Ethiopia – Phase II

The major portion of the Ethiopia project is financed through contributions outside ASP mainly from the following donors:

Country	Fund in US$ Million	Comment
Belgium	2.40	$2.1m is managed through FAO and $1.3m co-managed locally
Finland	1.02	Managed through FAO
Japan	1.35	Managed through FAO
Total non-ASP funding	6.00	Approximately taking into consideration the rate Euro versus USD as part of the funds is in Euro

Each of the donors concerned, support discrete project components as follows:

Belgium	Covers disposal and local costs
Finland	Project management
Japan	Prevention of accumulation of obsolete stocks in future, involving various activities
ASP	ASP's funding component will focus on: (a) Awareness raising, (b) Container management, (c) Soil pilot studies and (d) Environmental assessment and training. Unfortunately the ASP budget to Ethiopia has been reduced from US$ 2.1m to US$ 1.3 which unfortunately seriously affects a number of planned activities.

South Africa

South Africa is far behind compared with Ethiopia in relation to developments concerning issues and problems of obsolete pesticides. This means the country is far less prepared than Ethiopia. This is owing to different factors or problems such as mature market, huge influence of private sector, big issues regarding regulation and prevention and also issues regarding the lack of national capacity within the government Department concerned.

Subsequently, there is a requirement for significant levels of Technical Assistance (namely FAO and CLI) to address issues of the scope of inventory, uncertainties on quantities for disposal. Also the budget expected from the Netherlands earmarked for activities in South Africa was reduced from the initial US$ 3.5M and therefore the remainder of funding has to come from the GEF contribution.

Tanzania

The preliminary inventory data in Tanzania indicates the existence of a massive quantity of stocks of about 1 200 tonnes or more which have seriously affected at least some 350 sites.

In view of the seriousness of the problem, a detailed prevention and disposal project was developed in March 2003 with an initial budget estimate of approx. US$ 8M. After appraisal, unfortunately, the budget was reduced to about US$ 6M. Such a reduction in the budget will definitely cause serious consequences. Many of the prevention components had to be reduced significantly and moreover there is no contingency for disposal of additional stocks or buried materials. The initial budget was developed based on the assumed GEF contribution to the project. The only way foreseen to address the current budget shortfall is to raise additional funds from other sources that will permit activities to be re-instated and to strengthen the project. In any case more attention will be needed to revise the final budget.

Issues at stake

The fund raising process for the Africa Stockpiles Programme has not progressed as anticipated and the appraisal and approval processes are not yet complete. These factors will undoubtedly lead to further delays in the start of the ASP. In the meantime, the countries concerned are asking FAO what is happening and why there are continuous delays? Therefore, there should be adequate justification to the countries from the World Bank for the continued delays; otherwise the credibility of the ASP will be damaged.

The ASP Technical Support Unit

Dr. Kevin HELPS
Technical Officer
FAO Obsolete Pesticides, Global Programme

Status Report

The ASP aims to address the obsolete pesticide issue in Africa and this objective has actually been enhanced by the advent of the Stockholm Convention on POPs.

Why the focus of ASP in Africa?

The FAO Programme on the Prevention and Disposal of Obsolete Pesticides initiated in 1994 focussed on Africa and the Near East. Its main initial objectives were to raise awareness to the issue of obsolete pesticides and to gather information about the status of the problem in these regions. Countries were encouraged and assisted in the preparation of preliminary indicative inventories of their obsolete pesticide stocks. Thus over a period of time a unique and comprehensive body of information was collected that provided the clearest picture available globally regarding the situation of obsolete pesticides in Africa and the Near East. Awareness in this region was also higher in most African countries than elsewhere because of the FAO initiative. In addition, practical experience in Africa had been gained by FAO, GTZ and others as a result of projects implemented in various countries. The issues and problems in Africa have the largest potential impact on local communities owing to lack of awareness on health and environmental problems created by pesticides and the fact that Africa had also been used in on many occasions as a dumping ground for hazardous waste that sometimes included obsolete pesticides.

A total of six countries have been identified with well-documented problems and are therefore listed as beneficiaries from ASP Phase I - Project 1. The process of country project development has been led by FAO since 2002 and all the participating countries will have ratified the Stockholm Convention, a condition to qualify for the ASP assistance.

ASP technical assistance

Country programme/s are only part of the wider ASP initiative and therefore there is a need for a series of Global components as follows:

- Programme Coordination Unit (PCU) – providing overall coordination for the ASP, fund raising, and secretariat functions to the ASP management bodies. This unit will initially be hosted by the World Bank but is expected to move to an African based organisation during the course of Phase I;
- Cross Cutting Activities Management Entity (CCAME) – providing coordination of non-country-specific activities such as knowledge management, information services, promotion and publicity and addressing cross-cutting technical issues. The CCAME will be hosted by WWF;
- Technical Support Unit (TSU) – providing technical guidance, support and coordination to country projects. This unit will be hosted by FAO and is described in more detail below.

The TSU will work at two levels as follows:

The ASP Programme level: This addresses or relates (a) to project *implementation*, (b) offering impartial technical advice, (c) monitoring and evaluation of country activities, (d) preparation of technical guidelines provided through a Technical Support Unit (TSU) at FAO

The ASP country level: This relates (a) to project execution*, (b)* day-to-day assistance to the country teams, (c) addresses the diverse needs of the prevention and disposal components. There are very few individuals with experience of both and therefore it needs to split the country level Technical Assistance (TA) based on components provided by consultants.

Why should the TSU be hosted at FAO?

Among the UN agencies working on chemical related issues, FAO has the mandate to deal with pesticides management issues. There is of course acknowledgement of the roles other UN agencies play in relation to pesticides, POPs chemicals and hazardous wastes such as WHO on public health pesticides, UNEP on POPs, Basel Convention on Hazardous Waste and UNIDO on pesticide production and waste management. Nevertheless, FAO both leads on pesticide management issues and on the prevention and disposal of obsolete pesticides.

The location of the TSU at FAO also acknowledges the experience gained since 1994. As a UN agency FAO is impartial and operates in the best interest of the country. FAO also has an extensive network of representations in almost every African country which can assist with communications and liaison in the country. FAO also has a proven track record of project implementation and execution including project development and lessons learnt, and was also an initiator and key player in the ASP development.

Funding and budget

FAO is not a donor to the ASP and has no financial resources to contribute. The FAO obsolete pesticide programme has been and must continue to be funded by externally contributed funds. Different donors have supported activities in specific geographical regions, individual countries, or defined types of activities. Thus, separate budgets have covered activities in Africa, Asia and Latin America, but most of these are almost completely depleted and will activities beyond the ASP are scheduled to end in the coming months. A question remains as to how countries in developing regions outside Africa will be supported in dealing with obsolete pesticides?

As a matter of policy, FAO has supported the development of the ASP as a solution to the problems of obsolete pesticides in Africa. In practical terms the FAO Obsolete Pesticides project team have worked for almost four years in support of the development of the ASP through submission to GEF, development of country projects and approval of the programme by the World Bank and individual bilateral donors. The total contribution of the FAO team in terms of staff time, costs and materials amounts to between $850,000-1 million over the four years. During this time also, the FAO team has not focused on developing alternative programmes that may fund its continued activities since it was believed that the ASP would both be all-encompassing thereby allowing little time for other activities, and be operational by the fourth quarter of 2003. Neither of these assumptions is proving to be correct.

Pertinent issues

When the ASP starts, the existing FAO project will become the TSU and will focus mainly on Africa. But FAO will continue to receive calls for assistance from non-ASP African countries, and from countries in Asia, Latin America, Eastern & Central Europe and the Near East, but unless there is a budget for operations in these regions, calls for assistance will go unanswered.

Summary

The need for technical support to the ASP is met by the FAO project. The needs of other countries will not be met unless donor support is secured. FAO's activities in other Regions need to continue if the ASP is to be replicated elsewhere and the problems of obsolete pesticides are to be adequately addressed. The countries need access to impartial advice and assistance and therefore the need for a Global Watch on obsolete, banned and unwanted pesticides remains firm. Although FAO is not a major donor, Eritrea and Syria have FAO funded projects through the FAO/TCP Technical Cooperative Programme (see below).

Syria and Eritrea status report and future plans

Dr. Kevin HELPS
Technical Officer
FAO Obsolete Pesticides, Global Programme

The status on Syria covers (a) inventory project, (b) What was found, (c) action taken, (d) current status and (e) possible developments in future.

Syria Inventory Project

The project initiative in Syria started with a limited budget of US$ 40,000 obtained through the collaborative agreement of UNDP/FAO. This amount enabled an indicative inventory to be completed between December 2002 and July 2003.

What was found in Syria

Ownership of Stocks

Ownership	Number of stores	Qty in (t)
Ministry of Agriculture (MoA)	13	210.0
Ministry of Health (MoH)	2	2.7
Agriculture Cooperative Bank (CAB)	63	326.5
Farmers Union (FU	4	1.2
Agriculture Research Centre (ARC)	1	4.0

Geographical distribution of stocks and summarized inventory

City	Stores	Total Kg + litres
Damascus	A+B+D+E	145,241.80
Dar'a	A+B+D+E	94,755.00
Alsweda	A+B+D+E	16,400.00
Homs	A+B+D+E	18,762.75
Hama	A+B+D+E	22,408.00
Tartus	A+B+D+E	8,625.00
Latakia	A+B+D+E	13,690.00
Idleb	A+B+D+E	40,423.00
Aleppo	A+B+D+E	29,383.00
Alhaskeh	A+B+D+E	44,500.00
Alraqqa	A+B+D+E	10,407.00
Der Ezor	A+B+D+E	96,997.00
Total		541,592.55

Inventory Summary

The preliminary inventory has been successfully completed (although with many difficulties) with confirmation of the existence of over 540 tonnes of obsolete stocks in Syria. This figure may still not be conclusive since not all owners have declared all stocks of pesticides in their ownership. Only very small quantities of POPs pesticides were found and therefore GEF funding for a national project to dispose of obsolete pesticides is unlikely. The problems encountered were typical of other affected countries, but the results of the inventory secured so far, allow formulation of a national prevention and disposal project.

Action taken

Formulation of an action plan was the primary task of the exercise, and an FAO TCP project for US$ 380,000 was prepared. This will deal with Environmental Assessment (EA), safeguarding and centralisation of stocks from the various affected sites. The aim is also to develop national capacity through Technical Assistance (TA) supplied by FAO and consultants as a preliminary step towards a comprehensive prevention and disposal project.

Current status

The current status is that the TCP is a 12-month project which was activated in August 2004. The inception mission took place in September followed by training of technical staff members and going through a procurement process which will take place in October 2004

What is safeguarding?

Safeguarding activities in action

Safeguarding refers to the reduction of risk at sites where obsolete pesticides are located by containing the chemicals, their containers and other contaminated materials in new, UN approved containers. The new containers and their labels are designed to allow the products to be shipped internationally for destruction or treatment elsewhere in accordance with the appropriate regulations (e.g. the International Maritime Dangerous Goods Code (IMDG)). Carrying out safeguarding in-country by trained local staff under the supervision of an international consultant builds capacity in the country for the management of hazardous waste materials, and also reduced the ultimate cost of a disposal operation in the country.

Eritrea

Eritrea has a similar scope of work to Syria although project development is not yet as advanced. FAO supported the initial inventory and EA training in Eritrea in November 2003 at the start for the EA Tool Kit development. It has been possible to identify significant stocks in one geo-political area referred to as Zoba.

As in most developing countries what was found was very messy, hazardous materials at various sites including Pesticides, POPs, containers and sprayers that had to be disposed of.

These are sites and stocks where most hazardous and dangerous stocks were found in the midst of family members and where children live.

What needs to be done

Preliminary investigations in Eritrea have revealed that the situation is bad, and the country has requested assistance in solving the problem from FAO on several occasions. Further efforts need to be made to complete the picture of the actual quantity and extent of the obsolete pesticides problem. Plans are underway to develop an FAO TCP project for Eritrea but it is unclear at this time whether FAO will be able to support this project. There are however hopeful signs that this issue might be resolved. Once the TCP project is confirmed, it will be possible to complete a detailed inventory and a complete Environmental Assessment, (EA), followed by safeguarding and centralisation of the stocks that currently exist and those that will be identified in due course.

Environmental Management Tool Kit

Franck BOUVET
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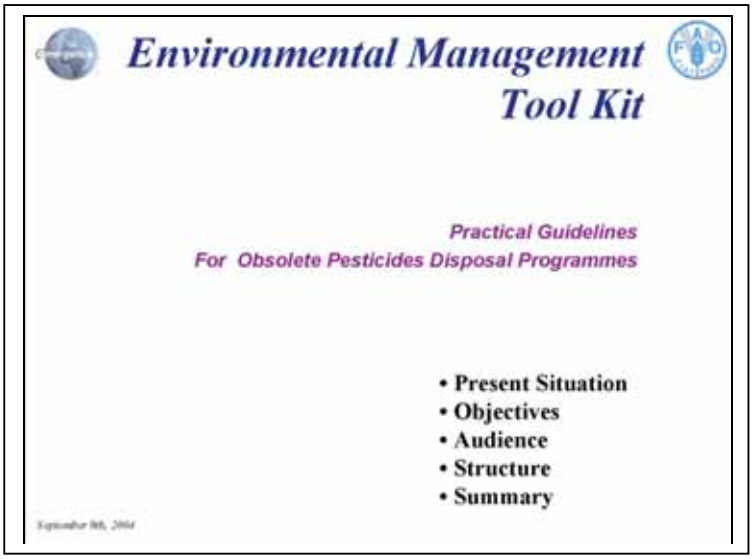
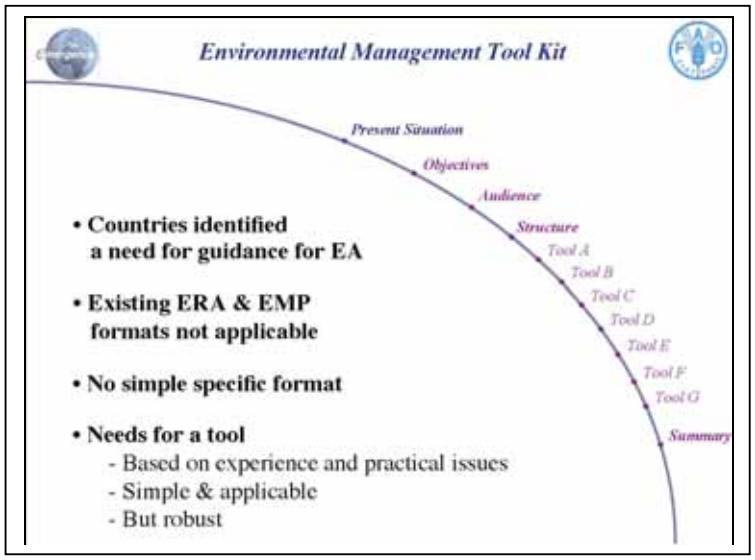
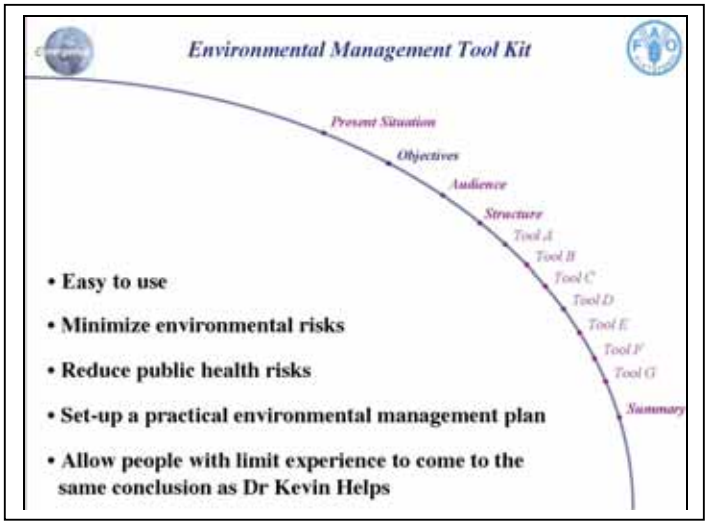
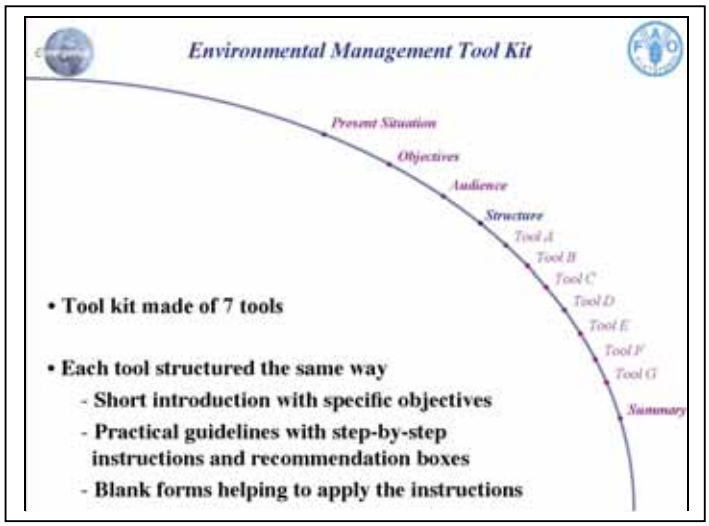
The Environmental Management Tool Kit (EMTK) is an essential component of cleaning up and repackaging of obsolete pesticide stocks. It is a tool that allows sites to be ranked according to the risk they pose to health and the environment thereby ensuring that the highest risk sites can be identified and dealt with first, and that new storage sites are selected with a clear understanding of their environmental impact. The tool kit is an environmental requirement demanded also by donors to be implemented under all hazardous chemical operations. Most institutions and/or donors make it a basic requirement before releasing funds. FAO is developing, updating and perfecting the EMTK to ensure its operational effectiveness while also ensuring that it is user friendly. The following presentation on the EMTK was delivered at the consultation meeting in Rome by Franck Bouvet, author of the EMTK.



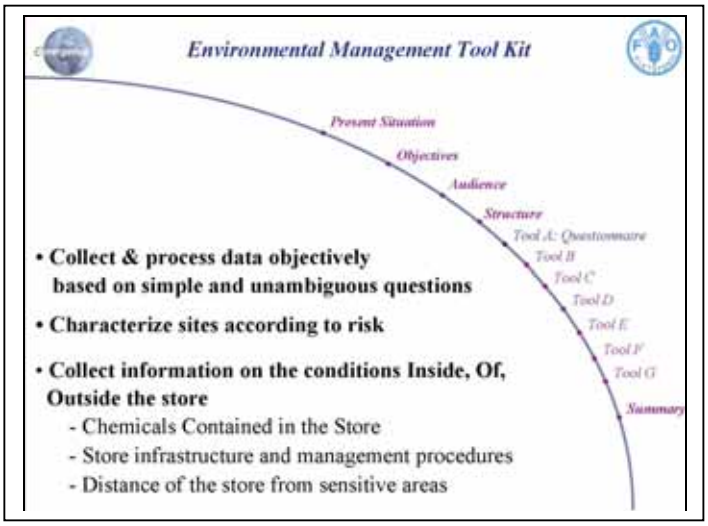


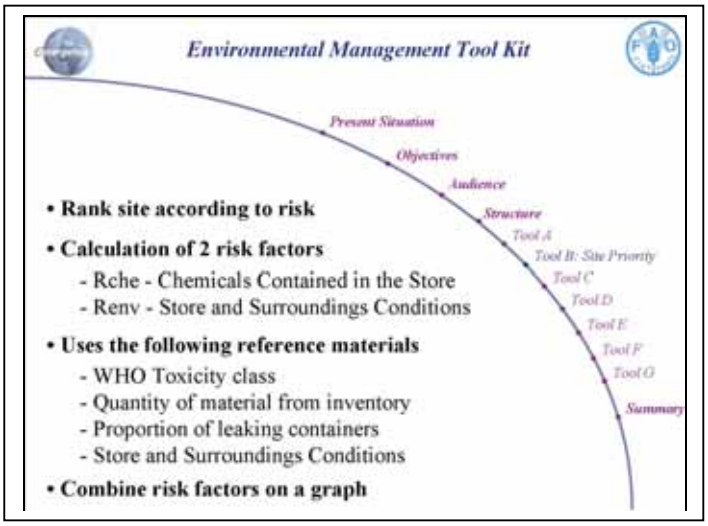

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• Easy to use
• Minimize environmental risks
• Reduce public health risks
• Set-up a practical environmental management plan
• Allow people with limit experience to come to the same conclusion as Dr Kevin Helps

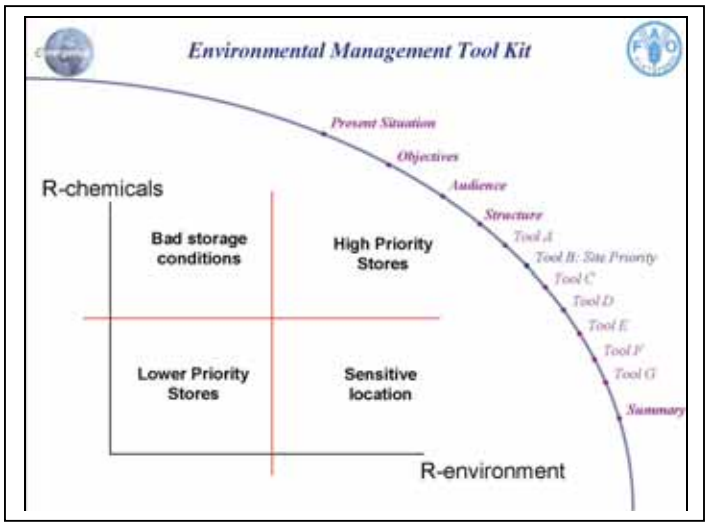

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• Country project management teams
• Field managers
• Consultants
• Anyone involved in a planning and field work

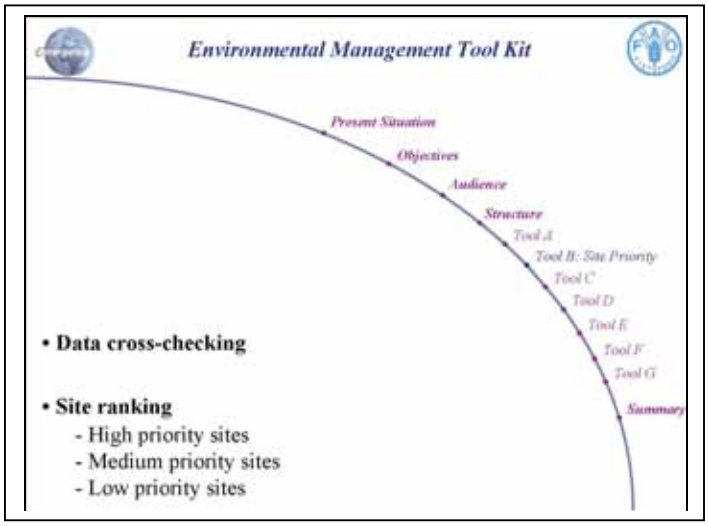

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• Tool kit made of 7 tools
• Each tool structured the same way
- Short introduction with specific objectives
- Practical guidelines with step-by-step instructions and recommendation boxes
- Blank forms helping to apply the instructions

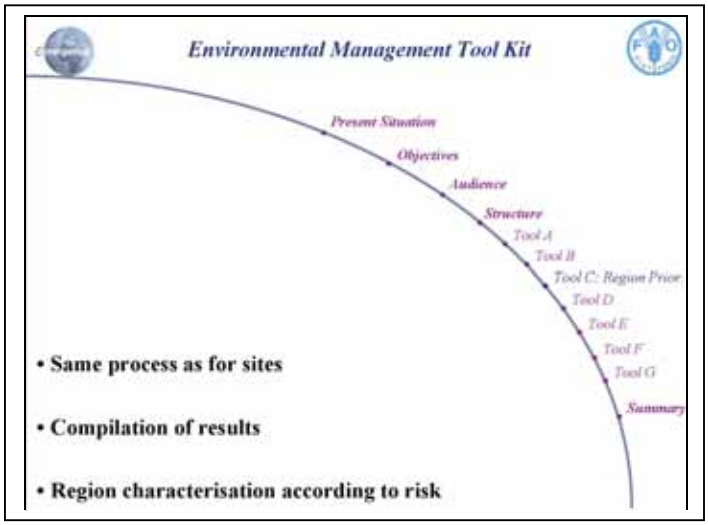

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
A Environmental and Public Health Risk Questionnaire for Sites
B Site Prioritizing
C Region Prioritizing
D Selection of Interim and Final Collection Centres
E Management of Collection Centres
F Set-up a Transport Plan
G Set-up an Environmental Management Plan
Glossary


Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A: Questionnaire
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• Collect & process data objectively based on simple and unambiguous questions
• Characterize sites according to risk
• Collect information on the conditions Inside, Of, Outside the store
- Chemicals Contained in the Store
- Store infrastructure and management procedures
- Distance of the store from sensitive areas

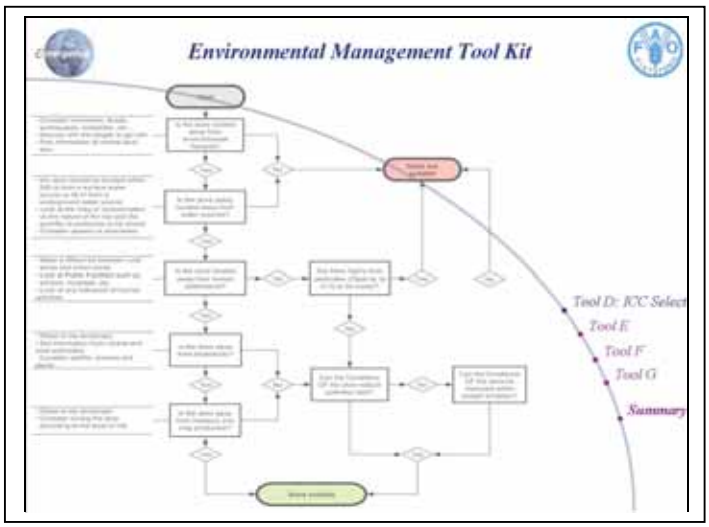

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B: Site Priority
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• Rank site according to risk
• Calculation of 2 risk factors
- Rche - Chemicals Contained in the Store
- Renv - Store and Surroundings Conditions
• Uses the following reference materials
- WHO Toxicity class
- Quantity of material from inventory
- Proportion of leaking containers
- Store and Surroundings Conditions
• Combine risk factors on a graph

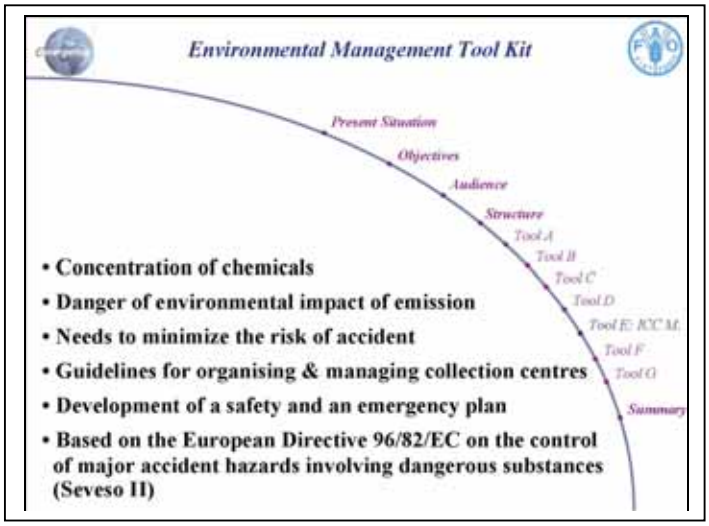

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B: Site Priority
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
R-chemicals
Bad storage conditions
High Priority Stores
Lower Priority Stores
Sensitive location
R-environment

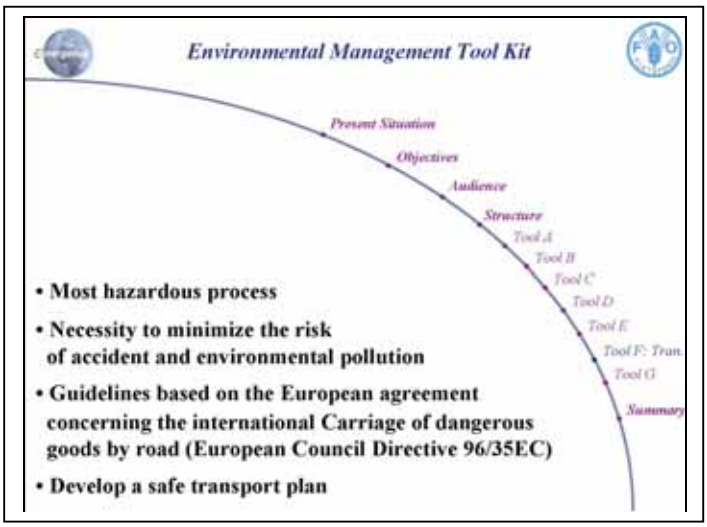

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B: Site Priority
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• Data cross-checking
• Site ranking
- High priority sites
- Medium priority sites
- Low priority sites

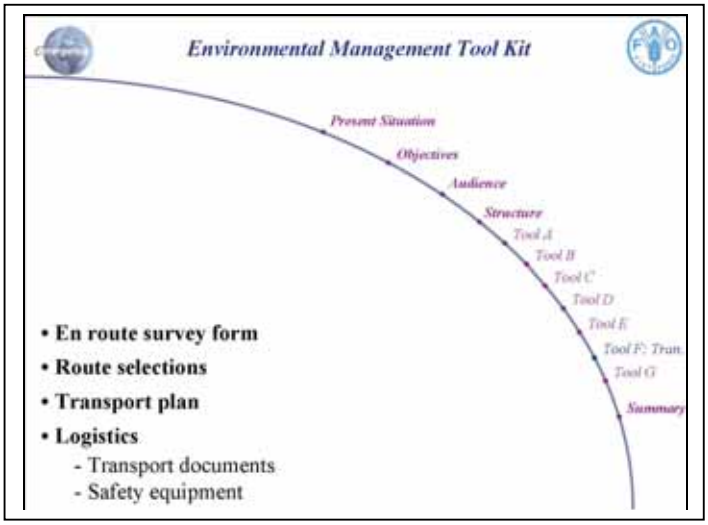

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C: Region Prior
Tool D
Tool E
Tool F
Tool G
Summary
• Same process as for sites
• Compilation of results
• Region characterisation according to risk

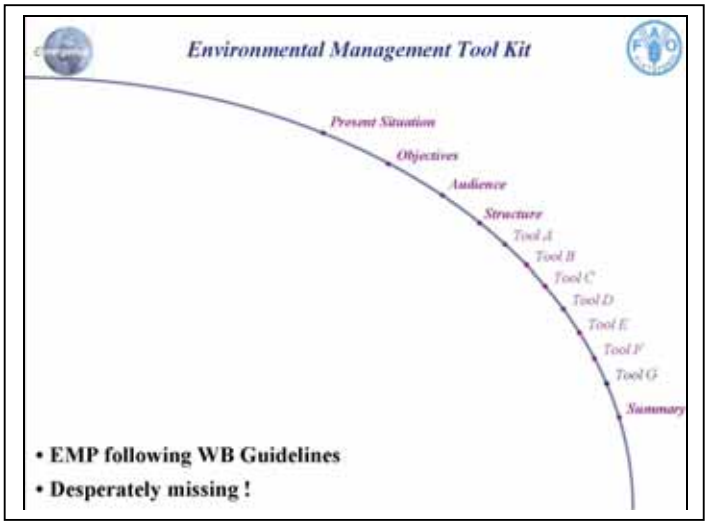

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D: ICC Select
Tool E
Tool F
Tool G
Summary
• Select collection centres
• Two flowchart using Yes / No answers
- Pre-selection of stores meeting minimum environmental standard
- Final selection of stores based on logistic and economical constraints
• If no stores meet the minimum environmental standard?
• Cost benefit analysis and available budget
• Use what exists wherever possible

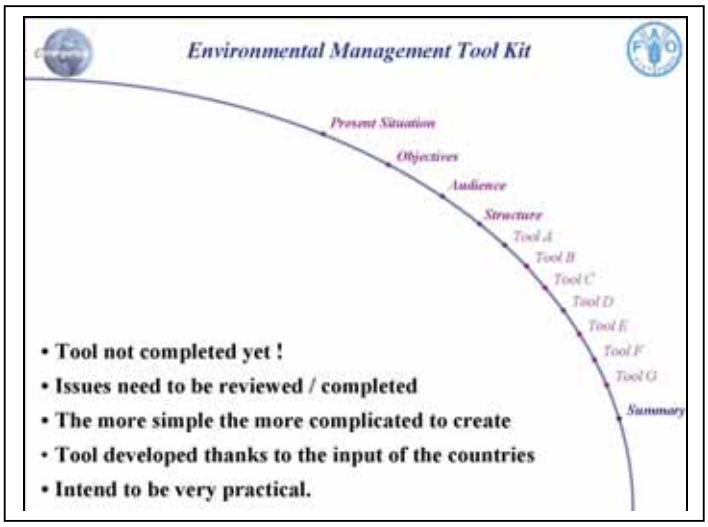

Environmental Management Tool Kit
Tool D: ICC Select
Tool E
Tool F
Tool G
Summary

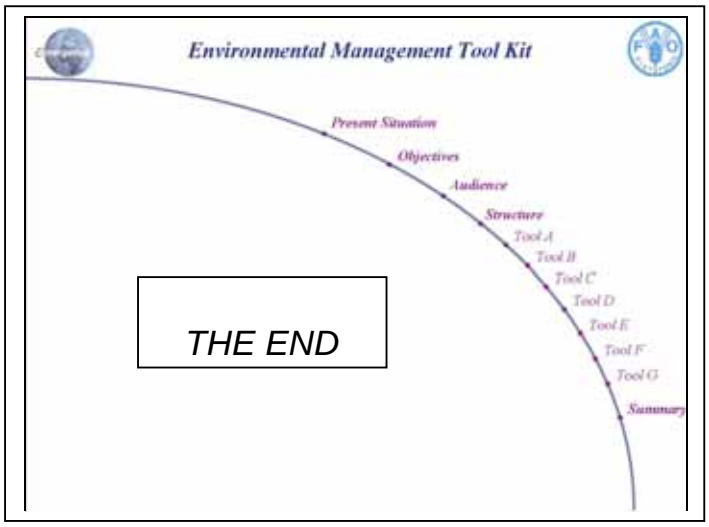

Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E: ICC M.
Tool F
Tool G
Summary
• Concentration of chemicals
• Danger of environmental impact of emission
• Needs to minimize the risk of accident
• Guidelines for organising & managing collection centres
• Development of a safety and an emergency plan
• Based on the European Directive 96/82/EC on the control of major accident hazards involving dangerous substances (Seveso II)


Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F: Tran.
Tool G
Summary
• Most hazardous process
• Necessity to minimize the risk of accident and environmental pollution
• Guidelines based on the European agreement concerning the international Carriage of dangerous goods by road (European Council Directive 96/35EC)
• Develop a safe transport plan


Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F: Tran.
Tool G
Summary
• En route survey form
• Route selections
• Transport plan
• Logistics
- Transport documents
- Safety equipment


Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• EMP following WB Guidelines
• Desperately missing !


Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
• Tool not completed yet !
• Issues need to be reviewed / completed
• The more simple the more complicated to create
• Tool developed thanks to the input of the countries
• Intend to be very practical.


Environmental Management Tool Kit
Present Situation
Objectives
Audience
Structure
Tool A
Tool B
Tool C
Tool D
Tool E
Tool F
Tool G
Summary
THE END

Service providers, survey and database

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Mr. Richard THOMPSON is a consultant and in independent waste management with 20 years experience with the industry. His technology experience is focused on High Temperature incineration, waste treatments and recycling, landfill, site clean-ups. He also practices in market evaluation of new technologies and legislation in IPPC, related with Landfill, Incineration and Hazardous Waste Directives. He has international experience in logistics, international regulations, Basel Convention, transport and packaging requirements.

Market survey and database

The purpose of the survey was to identify organisations that are able to participate in the ASP and other obsolete pesticide projects. Service Providers with Capabilities identified include: (a) waste disposal technology (mobile and fixed) for pesticides, contaminated containers and soils, (b) field Capabilities - turnkey projects, repackaging, logistics, on-site remediation, inventories and (c) consultation - project oversight, training

Sources of Information

Sources of available information were from (a) known service providers, (b) trade associations in EU and US, (c) other UN agencies, NATO, (d) literature / web searches, (e) EPAs especially USEPA, (f) other consultants

Structure of market survey

The structure of the market survey was devised as a three part questionnaire, collecting information about (a) the organisation/s, (b) their facilities and technologies, and (c) their field capabilities and expertise. By using Microsoft documents and emailing the questionnaire electronically, made data submission simple for the organisations and expedited compilation into the database.

Market survey - organizations

The information obtained about the organisations included (a) contact details, (b) ownership, (c) generic capabilities and (d) relationships - governments, group companies, partnerships and subcontractors.

Market survey on facilities/technologies

This topic considered, location, capability, types of pesticide and pesticide waste, capacity, whether available is mobile, fixed or both, authorisation to operate, experience in pesticides, systems accreditations and cost elements.

Market survey on field teams and consultancy expertise

The focus under this topic was mainly, (a) on level of capability and expertise (i.e. project management, site assessment, decontamination, repackaging, logistics, on-site operations), (b) human resources at the disposal of the company concerned whether available on secondment or on contractual basis and (c) project experience.

The survey was undertaken during September and October 2003. Analysis of the initial response is shown in the table below:

Result of initial response								
No	Organisation Type	Ceased Trading	Declined	Message rejected	No response	Returned Questionnaire	Total	%
1	Cement Manufacturer		2		7	2	11	8.3%
2	Environmental Engineer		4	1	16	5	26	19.5%
3	Incinerator		3	1	9	20	33	24.8%
4	International Advisory Organisation					2	2	1.5%
5	Logistics				1	1	2	1.5%
6	Other waste treatment operator	1	1	2	11	6	21	15.8%
7	Remediation Specialist		2	2	9	6	19	14.3%
8	Technology supplier		6		2	11	19	14.3%
Total		**1**	**18**	**6**	**55**	**53**	**133**	
%		0.8%	13.5%	4.5%	41.4%	39.8%		

Service Provider Database

The database was designed to holding all the information from the survey and to allow users create and edit new records and to retrieve information. The database uses Microsoft Access and is available on the network at FAO Rome. It has the same structure as the survey questionnaires - organisation, facility and/or technology, field capability. The database provides a user-friendly interface, and is managed by the Obsolete Pesticides Team.

Data

Initial data from Market Survey was entered. A subsequent follow-up was made to obtain information in the case of filling known gaps, in particular with large multinational service providers and new service providers / enquiries at FAO, who are requested to complete questionnaires. At the time of the Consultation Meeting the database contained information on 120 organizations, 66 Facilities and / or technologies and 40 Field teams / consultants.

The geographic distribution of technologies yielded the following picture

Distribution of Technologies								
Technology Group	Africa	America Central	America North	Asia East	Australasia and Oceania	Europe Central and Eastern	Europe Western	**Total**
Bio-remediation			4				5	**9**
Combustive Destruction	2		4	2	1	1	29	**39**
Non-Combustive Destruction		1	6		3		2	**12**
Pre-treatment and concentration			2				3	**5**
Sequestration							1	**1**

Organisations in database, distribution of technologies and database Issues

In order to ensure the information in the database is current, it is necessary to regularly review of data. This will identify service providers that are no longer active (e.g. AVR), changes at service providers either in ownership or in name (e.g. Rechem to Shanks), development or acquisition of new technologies or capabilities, and changes in contact persons. The data in the database is exactly as provided by the organisation. This data must be audited and reviewed, before any decisions or actions are taken to engage an organisation.

Observations

There seems to be great interest from EU incinerators (Waste Management Companies) as most are keen to secure business or simply fighting for survival in a market with significant excess capacity. This has led to closures at Shanks and AVR, with the possibility of more to come in Germany. Conversely there is low interest from established US technology. Cement Kilns are generally uninterested in pesticides, focussing instead on high energy, high volume, and low profile wastes. In this case, Holcim is the only active player for pesticides and has undertaken a trial in Vietnam. Economics appear to make cement kilns an attractive option for liquid wastes. In some countries, the public, the civil society or NGOs severely object the use of cement kiln for disposal of waste such as that in Mozambique where the plan to use a cement kiln was abandoned in the late 1990s. The option was then to ship 900 tonnes of waste overseas for disposal at a cost of (US$ 9.5 million).

There was interest from organizations with non-combustion technologies as they attempt to break into the market. However, because of issues of high costs, lack of development funding and poor competitiveness, some organizations are withdrawing from the market, - e.g. Accentus Ag++ process. There is low interest too from large Environmental consultancies such as ERM, and Environs, and there is little or no response from organizations in developing regions.

Follow up on developments

A joint project with Secretariat of the Basel Convention (SBC) is planned to survey developing regions in (a) South America/Caribbean (FAO), (b) Asia (SBC). The progress of cement kiln trials should be monitored, as well as the remediation projects that use non-combustion technologies including EDL ball milling at Mapua, New Zealand and Suez/BCD at Spolana, Czech Republic.

Issues for ASP

International logistics are increasingly more complex and costly for three reasons:

- Compliance with the Basel Convention on transboundary movements of hazardous waste has limited flexibility for changes in shipping routes;
- Costs for insurance for waste shipments are rising and with a reducing number of underwriters providing cover; and
- A limited and reducing number of shipping lines accepting cargoes of waste.

In view of such complexities, and the potential decline in incineration capacity with further closures of facilities, export of obsoletes stocks and POPs pesticides for incineration will increasingly become less attractive and more difficult. Therefore there is need to explore disposal options that can be deployed close to the stockpiles. The question remains whether developing countries could handle hazardous wastes under a system that is internationally acceptable and environmentally safe, where installation of modern destruction methods can be expensive and unjustifiable for the quantities of waste that exist in each of the affected countries?

Ethiopian Experience on Obsolete Pesticide Disposal

Biratu OLJIRA
Project Manager
Ethiopia

This presentation covers issues and problems of obsolete stocks in Ethiopia and progress achieved so far in the project for prevention and disposal of obsolete pesticides in Ethiopia.

Highlights of areas of focus

- Survey and evaluation of data
- Selection of disposal options for Ethiopia
- Securing donor support
- Country obligations and contributions
- Project Management
- A series of activities undertaken
- Capacity building components
- Examples of highly affected sites
- Preparation for project Phase - II
- Lessons Learnt
- Future plans and concerns
- Summary

Survey and Evaluation of Data

The Ministry of Agriculture and rural Development (MoARD) of the Government Ethiopia seriously felt the need for taking the initiative in National inventories of obsolete stocks roundabout 1995. The necessary budget was allocated from local sources and concurrently assistance and guidance were sought from the Food and Agriculture Organization of the United Nations (FAO/UN). The initial phase of the inventory was completed in 1996 and this therefore was considered a major step forward at the time.

In order to determine as to which varieties of pesticides or chemicals were involved and which and what quantities were obsolete or not, it became necessary to make accurate assessment of all pesticides existing in unacceptable conditions lest the true scale of the problem would have not been known. The effort also included identifying affected sites that would require immediate action or attention before deciding to stabilize or determining prioritisation for action. The decision helped to have clear understanding of the situation and enabled to formulate appropriate and environmentally acceptable strategies that would allow dealing with the problem adequately and above all safely and without harming the environment and endangering the human health. Such careful assessment at the outset was also useful in the identification and choice of a suitable disposal option and for preparation of disposal plans.

The FAO guideline for conducting inventory of stocks was followed to the letter. Bigger organizations including State Farms submitted information of obsolete stocks in their possession and subsequently the data received or directly obtained during the process of inventory were compiled, and doubtful or unknown chemicals were analysed in the laboratory of the MoARD.

Close examination of the inventory demonstrated that accumulation took place over a period of 40 years. Different owners were involved and invariably almost all stores and sites were badly affected. Initially over 1,200 tonnes of obsolete stocks were secured having affected over 452 sites. At that stage it was believed that the information gave a complete picture of the situation in Ethiopia but unfortunately not so as the latter investigation confirmed.

It was also confirmed that that over 350 tonnes or 29.2% of the total of 1,200 tonnes identified were banned pesticides referred to as persistent Organic Pollutants (POPs)

Causes of accumulation

Similarly to the situation in most developing counties, the causes for accumulation in Ethiopia were identified as having been mainly owing to the following:

- Uncoordinated donations.
- Substandard or unacceptably poor storage system and total lack of proper management is a common phenomenon. In some cases sound and nice looking stores are used for storing pesticides but unfortunately such stores lack ventilation and the temperature often remains very high in relation to the outside temperature which leads to accelerated deterioration of pesticides.
- Inappropriate formulation of pesticides received or improper package sizes. For example UL:V formulations were delivered where no ULV application equipment was available, or pesticides were supplied in bulk containers of 200 litres or 50kg where only small quantities were needed by local users.
- Product deterioration due to extended storage far beyond the shelf life of chemicals.
- Lack of legal controls in the country in the past.
- Poor assessment of pesticide requirements resulting in massive oversupply.
- Inability to practice or being unaware of the need for complying with a system referred to as the first-in-first-out (FIFO). This means pesticides that have been delivered first stay behind far long while new arrivals are taken out for use.

Disposal Options for Ethiopia

The basic criteria used for selection of disposal options among others included some salient points such as, environmental issues, human and animal health, quantity involved, technological options that are available, effectiveness of the methodology to be considered and finally cost.

It was discovered that there weren't easy disposal methods that are cheap, safe, versatile and applicable for bulk quantities of obsolete stocks. Bulk hazardous wastes require environmentally sound disposal methods that Ethiopia doesn't currently have and is unlikely to possess in the foreseeable future. In view of this it was decided that local disposal options were out of the question owing to the high cost of installation of disposal facilities as compared to the total waste involved in this project.

The use of a local cement kiln was considered but was deemed to be unacceptable simply because there is no local monitoring capacity, no funds to adapt the cement kiln into a disposal facility, and doubts about the efficacy of cement kilns for the destruction of pesticides in developing country situations. There is neither appropriate legislation nor enforcement ability, or the necessary experience to use cement kilns in Ethiopia. There wasn't a desire on the side of the cement kiln companies to use their facility for disposal of wastes. Besides, the Government was and is not convinced to allow the use of cement kiln

for such purposes because basically cement kilns are designed to produce cement and not for destruction of wastes and therefore using them for disposal purposes can't be guaranteed to be environmentally safe either on the short or long term.

Therefore in the absence of better alternatives, high temperature incineration was chosen for the disposal of obsolete stocks originating from Ethiopia. For the time it was considered as being the best option, though it might have its own limitations. Unfortunately, there aren't licensed and dedicated high temperature incinerators in Africa that would accept hazardous wastes for disposal. Thus the choice was to export the wastes concerned to European countries where commercial facilities are available and where they accept waste for destruction. That is the situation as it concerns obsolete stocks identified to date in Ethiopia and is likely to remain the case in the foreseeable future not only for Ethiopia but also in other developing countries where disposal facilities are seldom available.

Donor Support

The Ethiopian government was convinced that prevention and disposal of its obsolete pesticide stocks was a matter of high priority and thus was among the top priority list of national concerns that required quick and positive action.

Initially the budget estimate of about US$ 3 million was thought to be sufficient for the destruction of the identified obsolete stocks. But this being too high for the National budget, it became necessary to seek donor support. At the outset various organizations were approached such as FAO, the German cooperative agency (GTZ), the Swedish international development Agency (SIDA), and others. Fortunately, a quick response was received from FAO. This led to the collaborative understanding between SIDA and FAO. SIDA sponsored a Taskforce Mission, i.e. a fact finding mission organized under FAO supervision constituting seven different experts from various disposal backgrounds in December 1998 headed by a Team Leader from FAO.

Members of the taskforce, on arrival in Ethiopia divided into groups and visited different affected sites. Subsequently the team confirmed that the quantity estimated initially as being 1,200 tonnes was re-estimated as being 1,500 tonnes nationally. The initial cost estimate for the project being lower than it should have been was put at US$ 4.5 million. This new estimate and information gathered during the Task Force mission enabled a project document to be formulated that was submitted to various donors seeking financial support. The project was presented at the end of the Taskforce's mission to the donor community locally (in Addis Ababa) at a meeting held in December 1998.

Ethiopia had been fortunate that by the end of the meeting a total of US$ 4.5 million was either pledged or confirmed for support as listed below in order of the size of the fund pledged for support:

No	Country/Donor	Amount pledged in USD (million)	
1	Netherlands	2.25	
2	Sweden	1.25	
3	USAID	1.00	
4	GCPF/CropLife	0.00	Promised to pay US1 for every kg or litre of waste originating from CropLife member companies.

The donors listed above paid their contributions according to the pledges they made except CropLife which has so far failed to honour its obligation.

Country Obligations and Contributions

The Ethiopian Government provided high-level institutional support at the Ministerial level from the outset. It has been ensured that all stakeholders would declare their stocks of obsolete pesticides. The public was made aware through the media such as radio, newspapers, etc.

Measures were taken to ensure the allocation of a national counterpart budget. Ratification of the Basal Convention for the trans-boundary movement of wastes was undertaken in time. Assignment of a full time senior project counterpart was ensured to work on the project to ensure that good coordination, liaison and collaboration took place between national institutions and external organisations such as FAO and international contractors. Since the Government was also responsible for providing support to the project in kind, office space was allocated which served the purpose. Co-ordination and working linkage with Regional Agricultural Bureaus (RAB) and general co-ordination with all relevant offices and activities were provided ensuring the project was participatory and collaborative.

A National Project Coordination Committee (NPCC) was established which included major stakeholders. The NPCC met on a regular basis under the Chairmanship of the FAO Representation and in its office. The NPCC stakeholders included: MoARD/FAO, Environmental Protection Authority, Ministry of Health, Ministry of Finance and Economic Cooperation, Ministry of Foreign Affairs, Ethiopian Agro-Chemical Association and NGOs. The NPCC has been vital in bringing the stakeholders together, usually every three months, to discuss progress of work, plans for actions and any issues arising from the project activities. It was a forum where the project management received suggestions and comments during discussions on issues relevant to the project to ensure that project activities proceeded in an effective, smooth and transparent manner.

Project Components

The project has three major features, namely, (a) disposal of the existing obsolete, (b) Prevention of future accumulation and (c) capacity building. The capacity building component includes, training, raising awareness of the society at all levels. There is also a major commitment to strengthening and reinforcing the practical and theoretical knowledge of staff and upgrading of equipment of the Pesticide Chemistry Lab

Project Management

The Ethiopian Project on prevention and disposal of obsolete stocks has been a joint undertaking between FAO and MoARD since it began operation in April 2000. FAO provided a Project Manager and the MoARD provided two Federal counterparts. The Project Management office remained responsible for all aspects of Project implementation and execution while the MoARD facilitated the provision of an additional 20 Regional counterparts.

Activities Undertaken

From conception of the idea to get rid of obsolete stocks in Ethiopia it took four years (1996-2000), and the actual activity of cleaning, repackaging and disposal having taken a total of 3 years including verification of the inventory taken earlier. The resulting verified inventory is summarized in the table below:

Verified (t)	Category
3,000	Total waste in the country
400	Identified and as usable after analysis in the MoARD laboratory
2,600	Requires disposal
1,500	Budget secured from three donors discussed above was adequate only for disposal of this total

A tender for the initial estimate of the 1,500 tonnes was made under the FAO International Procurement rules, resulting in a competitive bidding process among hazardous waste Management Companies. Ekokem of Finland was selected as the contractor for the project. A total of 1,575 tonnes were cleaned up and repackaged of which 1,507 tonnes were dispatched to the Ekokem's incineration facility in Finland and destroyed. However, of the total repackaged, 68 tonnes were left behind owing to the insufficiency of the fund at hand and is therefore waiting to be included for disposal during the Project Phase-II.

Over 800 tonnes of obsolete stocks have been verified as having originated from CropLife member companies, but unfortunately and as already indicated above no payment has been made towards the disposal.

Capacity Building Components

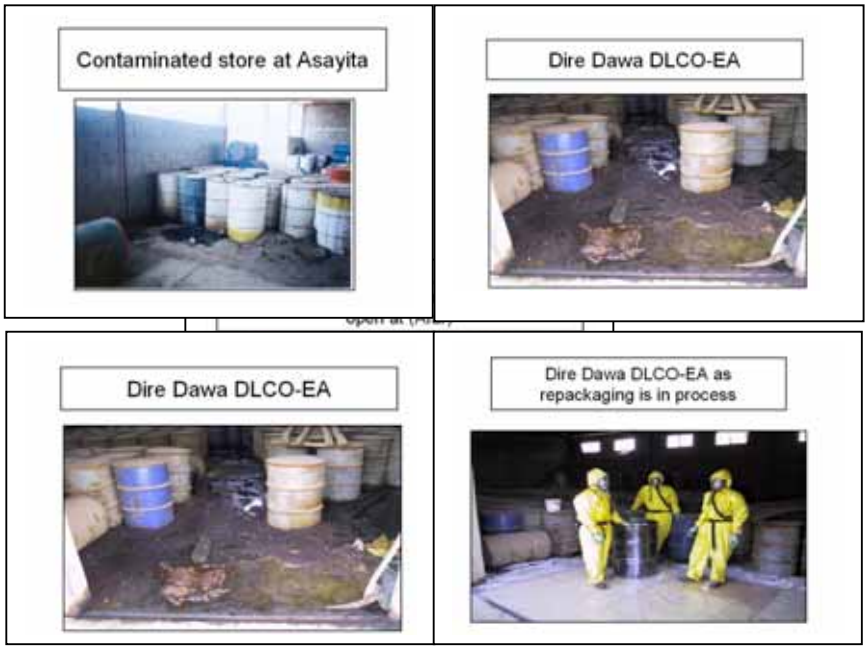
At the outset FAO trained 40 staff members of the Ministry including Federal and Regional levels for the process of taking a detailed inventory of obsolete pesticide stocks. The pesticide analytical laboratory was upgraded and a number of laboratory technicians and analytical chemists received on-the-job training. However, a requested comprehensive upgrading of the lab was postponed due to budget constraints.

In addition, a total 25 selected field operational staff were trained by the waste management company, Ekokem on health and Safety i.e. US OSHA Hazardous Materials, First Aid (to the level of International Red Cross and Labelling & Packaging (according to the International Maritime Dangerous Goods Code IMDG). The trained counterparts were given extensive responsibility for supervision of field activities under the guidance of the international contractor.

Examples of highly affected sites and the need for prioritisation

Priorities were given to highly affected sites during the first phase operation taking into consideration a number of factors such as quantities involved on affected site, proximity to water sources, proximities to urban centre, public institutions, etc.

Budget limitations, human health and related environmental issues, were other criteria used for prioritisation. Some of the affected sites and the process of cleaning up are shown in the pictures below:



Preparation for Second Phase

The donors for the implementation of the Prevention and Disposal Project Phase-II, are the Governments of Belgium, Finland and Japan. As soon as an agreement was signed with FAO Ethiopia, funds were released and operations started in November 2003.

Funds secured by source for Phase-II are as follows:

No	Donor	Fund in US$ (m)	Category of operation
1	Belgium	3.4	For disposal and Management
2	Finland	1.2	Management
3	Japan	1.1	Prevention of accumulation
4	Africa Stockpile Programme	1.3	Disposal of soils, containers and capacity building (reduced from the initial of US$ 2.6 million pledged)
5	CropLife	0.4	For incineration of CLI derived products
Total		7.4	

In due course consultants were employed and local staff were either hired or assigned to the project. Verification of the Environmental Risk Assessment (ERA) was started along with the clean-up and packaging process following training of local staff. Phase-II differs from Phase-I fundamentally because the entire project is managed by national staff who acquired experience during Phase-I of the project as opposed to FAO appointed experts or consultants.

The shipment and disposal of obsolete pesticide stocks overseas will be done by competent waste management companies appointed under the FAO procurement system.

Quantification, location, identification and verification of remaining obsolete stocks are being undertaken at present by locally trained staff.

During Phase-II, the prevention component will be given much stronger emphasis. It is also planned to address disposal of pesticide containers and contaminated soils including buried stocks. The planned date for starting the main activities of the project has been delayed, owing to prolonged administrative procedures for recruitment of additional project staff. Also the need for careful selection of a competent company through an international bid was an additional factor that contributed to the delay in the commencement of field activities.

Lessons Learnt

The willingness of the Government of Ethiopia to ratify International Conventions e.g. Basel, with reference to waste management and cross border transport has helped to accelerate events. Also, the ratification of other associated conventions, namely the Rotterdam (PIC) and the Stockholm (POPs) conventions were landmarks. The Basel convention facilitated notification Procedure although no previous experience existed in complying with its procedures. Complying with the correct procedures on shipment of waste from the country of origin to country of destinations was crucial to the final sound disposal of waste concerned.

Waste destined for shipment has to go through a series of channels such as customs clearance, completing the requirements for local transport and complying with International shipping regulations. Insufficient information for example on estimation of quantities or in case of leakage of waste while in transit can cause serious delays and environmental problems.

The impact of logistic arrangements should not be underestimated as poor logistics can cause serious delays. Positioning a storekeeper on site at all times is important. Road conditions and long distances will have serious impacts on time and therefore prior knowledge of road conditions and prior visits to affected sites is important.

Utilization of casual labourers should be considered carefully. Persons from the regions where work is taking place should be involved where possible and appropriate. In this case training considerations, safety requirements, health and physical fitness, effectiveness at work, motivation for work, honesty, respect for time and others should be ensured as well as ensuring that the language barrier should not hamper operations.

Organizing various working groups to work together in harmony for a given goal is important. In the case of this project, FAO/MoA, company staff, labourers, regional and Federal experts, drivers, storekeepers, Paramedic Nurse, the community, local authorities, and others all had to collaborate.

Transparency, among stakeholders, FAO, MoARD, Donors, EPA, MoH, MoFA, MoFED, NGOs, etc. and exchanging and sharing views and opinions were positive to the project operation in Ethiopia.

National Project Coordination Committee (NPCC) quarterly Meetings involving stakeholders concerned, who were established at the outset of the project operation, helped and facilitated reporting activities, presenting and discussing future work plans, accepting suggestions, analysing comments and making useful decisions.

Making decisions

It is possible that accidents might occur at any time and anywhere even if adequate precautions are taken in advance. Trucks on route or in transit can be involved in serious accidents owing to high speed and particularly when using double-trailer trucks. Appropriate solutions need to be in place anticipating that such accidents might occur. For example, in Ethiopia a truck loaded with repackaged waste overturned not because of speed but simply because of bad road conditions. Fortunately, the accident was not serious and was quickly resolved but all concerned in the area and the relevant national authorities were quickly informed and alerted just in case the accident might turn out to be serious in terms of environmental pollution. Solutions employed to prevent accidents included, limiting the speed for trucks, avoiding using double-trailer trucks and abiding by strict rules for escorting trucks with trained personnel. These have contributed and to the success of the project operation.

An accident that is referred to is shown below:

Truck Accident View [a]

Truck Accident view [b]

Truck Accident View [c]

Future Plans and Concerns

It is expected that the quantities of obsolete pesticides ultimately found in Ethiopia might increase, as there are already indications from recent field visits and late declaration of stocks received from various sources. It is therefore necessary to look out for such eventualities and therefore additional donor support may be needed to ensure that no waste is left behind and that the objectives of the project are fully achieved.

Although preparations are underway for pushing activities forward, there still remains much to do despite the fact that strategic work plans are already in place.

Identification of a competent disposal company has been finalized through FAO and therefore plans for work will have to be prepared jointly with the company concerned.

Personnel involved in the project are very aware of the issues of obsolete pesticides and are therefore ready to assist in preventing future accumulation of stocks. Plans are being refined in finding ways for further upgrading of the Pesticide Chemistry laboratory but additional funds might be necessary to add more modern and badly needed equipment and to replace aging equipment.

It is an advantage for a country to take the initiative on its own rather than waiting for others to initiate, provided that the necessary funds are secured.

Efforts will continue to be made to have accurate inventory data to allow firm budget planning. It has been useful that the country has been involved from the outset and that no difficulties are anticipated in the operation unless the source of finance dries up.

As already indicated, prevention is equally as important as disposal of existing obsolete stocks and therefore Ethiopia must assess its need for pesticides before buying and ending up again accumulating stocks.

Contributors and acknowledgement

The Ministry of Agriculture of the Ethiopian Government highly appreciates and acknowledges the benevolent and unreserved contribution of funds and support in finding solution to the serious environmental hazards and problems to the human health that the country faced. Also due thanks go to FAO for the coordination and provision of its full technical and managerial support both for Phase-I and also for Phase-II and the donors, namely the Governments of the Netherlands, Sweden, Belgium and Finland, Japan, and the USAID

The slogan for the Ethiopian Prevention and disposal project stands as:
"NEVER ACCUMULATE HAZARDOUS WASTES

MINISTERIO DA AGRICULTURA E DESENVOLVIMENTO RURAL
DIRECÇÃO NACIONAL DE AGRICULTURA
DEPARTAMENTO DE SANIDADE VEGETAL
REPARTIÇÃO DE REGISTO E CONTROLO DE PESTICIDAS
(PROJECT: UTF/MOZ/073/MOZ)

National inventory and prevention of accumulation of pesticide stockpiles in Mozambique, Phase-I

Khalid CASSAM
Project Manager
Mozambique

The presenter: Mr. Khalid Cassam is a Mozambican, Portuguese Speaker and working as an Agronomist. He is a graduate from University of Mozambique (UEM) in 1997 with a degree of BSc. After completing his studies with the Faculty of Agronomy, he worked in a private sector company known as Agro and Vet Products. He has been working with MADER since February 2001. From February 2002 he is promoted as Head of Pesticide Registration and Control Sector of National Pest Control (NPC)

Disposal of obsolete stocks in Mozambique falls under the responsibility of the Ministry of Agriculture and Rural Development of Mozambique (MADER)

In the past, two disposal operations had been completed. The first took place in 1993 with support from GTZ (Government of Germany) and with the involvement of Shell Co., where a total of 160 tonnes of DDT/Monocrotophos was cleaned up, repackaged and disposed of overseas.

The second took place from 1999 to 2001 with the help of the Government of Denmark through its International Development Cooperation Agency (DANIDA) where a total of US$ 9.5 million was made available with an intention for upgrading a cement kiln for the purpose of disposal of obsolete pesticide stocks and other wastes. The idea was to have a system of sustainable waste management for the country. But the plan to use a cement kiln in particular attracted a stiff opposition from international and national NGOs. The idea was abandoned and instead the fund was used to dispose of 900 tonnes of obsolete pesticides and POPs pesticides by shipment to Europe for incineration at a dedicated hazardous waste facility.

Causes of accumulation

Like in many other developing countries there were many causes of obsolete pesticide which included the following:

- Lack of appropriate storage facilities and poor stock management
- Wrong assessment of needs and subsequently overstocking of unwanted pesticides
- Importation of pesticides close to the expiry of their shelf-life
- Often pesticides were delivered with unsuitable products or unsuitable packaging

- Lack of co-ordination among different government agencies such as one importing pesticides, the other not releasing stocks on arrival at ports. Such actions often led to pesticides becoming obsolete even before being cleared from the customs warehouse.
- Lack of appropriate Government policies supporting the use of alternative methods of pest control such as IPM or others.
- Widespread lack of awareness of the inherent danger of pesticides affecting the environment and the human life.
- Gaps or weakness in pesticide regulations.
- Absence of outbreak of red locust that led to non-use of 20% pesticides imported in anticipation that pesticide outbreaks would occur.

The situation in relation to project, phase-I

Despite the removal of waste twice as indicated above, the problem of obsolete pesticides in Mozambique remained serious. In view of this, additional donor assistance was sought. But to do this there was a need to prepare a project document which would focus first and foremost on inventory of stocks to see as to what quantities exist and what their impacts are, as well as how to begin to plan for a better and well coordinated method for disposal for the third time that ensures measures will be in place to avoid future accumulation.

In order to make a start, FAO assisted in the preparation of a project document in 2002. The first draft of the project was ready in January 2002. In April 2002 the parties concerned including relevant Government Departments and FAO discussed the draft on three separate occasions before the final version was completed.

Still within the same year (2002) FAO negotiated with the Government of Japan in search of financial support for the project. BY 2003 Japan accepted the request for support and approved a fund of US$ 850,269. It was then agreed for this sum would be transferred to the Government of Mozambique and three months later a further agreement was reached for the fund to be transferred to FAO Mozambique for the purpose of administration under a project Code *UTF/MOZ/073/MOZ.*

Objectives of project UTF/MOZ/073/MOZ

The objectives of the project focused on issues and problems of obsolete pesticide stocks with a focus on the following features:

- Undertaking a thorough Inventory of obsolete stocks according to the FAO and other relevant International guidelines.
- Assisting in the adjustment and harmonization with existing legislation.
- Developing a project proposal Phase-II for disposal of stocks identified and verified during phase-I.
- Holding a meeting of donor and stakeholders to solicit financial support for phase II.

What was done

Immediately after securing of the financial support from Japan the following actions were undertaken:

- In August 2002 (even before the project was approved), FAO provided funds for a study by a local consultant of the regulatory aspects of registration and management of pesticides.
- Also in August 2003 - a Project Manager Team (PMT) was assigned and posted at the National Directorate of Agriculture.
- Sensitisation of Provincial Directorate of Agriculture and Rural development was undertaken.
- Trainings involving various relevant sectors at the provincial level were conducted.
- The process of inventory was put in proper perspective through the PMT.
- Environment Impact Assessment (EIA) training was complemented involving all relevant participants.
- Training of Trainers (ToT) in safe use and management of pesticides was coordinated and conducted with CropLife (CLI). In this case 28 persons were trained of which at least 20 of the provincial staff members would have to train each at least 10 persons in their respective areas.
- A case study was conducted with reference to awareness programmes, and evaluated data and organized regular progress reports for submission to a project steering Committee (PSC).

A total of 98 persons were trained with specific focus on the following points: (a) warnings and measures to be taken on risk assessment, (b) site assessment, (c) what data to collect while taking inventory, (d) where to find and organize data and how to analyse it, (e) site evaluation, (f) selection of appropriate personal protective equipment (PPE) taking into consideration the types of activities to be taken at any given time and affected sites or stores, (g) how to report data (h) how to address appropriate measures for prevention of accumulation of obsolete stocks, etc.

A series of examples of seriously affected sites and trainings undertaken in a pictorial format given below:

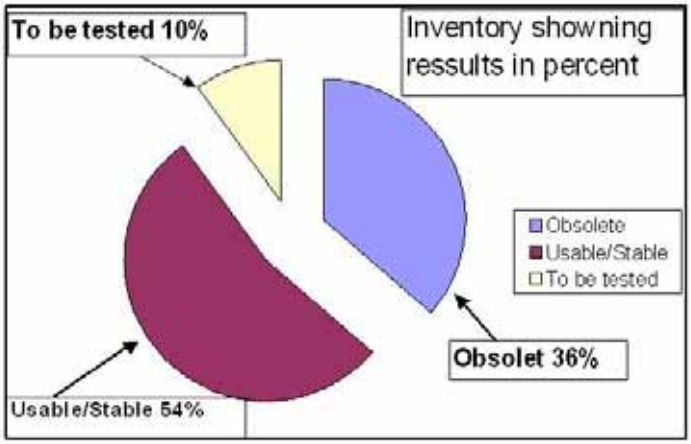
Trainings of participants in progress

Process of inventory in progress with training

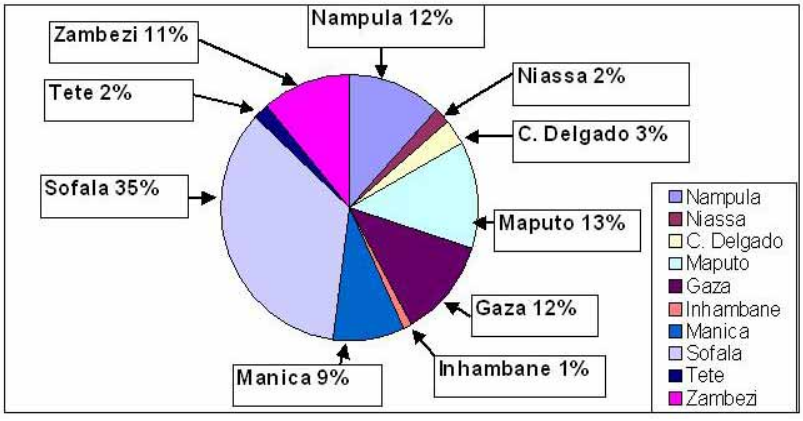
Preliminary information yielded 3,599 empty containers of all types and sizes

Preliminary information confirmed 10 sites badly affected with large quanties of waste

Preliminary results - Pesticides



Preliminary results - products



Constraint's finding

The majority of government stores visited by the PMT are in bad condition and in need of urgent attention. Invariably difficulties existed in terms of the location of stores and that containers were leaking, making it difficult to clean up sites. Often the way stocks were found was in a much unorganised condition making it difficult to sort out stocks by type of chemicals etc.

Follow up of activities

Follow up activities in Mozambique will focus on (a) analysis of unknown stocks and organizing data of inventory identified, (b) Pursuing the study of environmental site assessment, (c) continuation of awareness raising exercises.

At the conclusion of the process of inventory taking, a project document will be prepared aiming for Phase-II activities with the assistance of FAO. The Phase-II project will then be submitted to the donor community at a meeting that will be held to search for the necessary financial assistance to clean up and dispose of all the stocks that will be identified during Phase-I. Project Phase-II will also address the question of preventing accumulation of obsolete stocks in the future coupled with the need for capacity building.

One hurdle remaining for Mozambique is that it has not yet ratified the Stockholm Convention on POPs, which is a condition for participation in the Africa Stockpile Programme (ASP), a strategic partnership that aims to clean up obsolete stocks from all the countries in Africa. The deadline for ratification is in December 2004 and therefore attempts will be made to take action before this date although this cannot be guaranteed because an election will take place in the country shortly and the change in government will undoubtedly slow down processes such as convention ratification.

Obsolete Pesticides in Latin America and the Caribbean

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Highlight

There isn't a single country in the developing world or among countries that are in economic transition that doesn't have deposits of obsolete, banned or unwanted pesticide stocks.

The statement in this presentation should demonstrate the trend of the situation of obsolete pesticide stocks and POPs pesticides in Latin America and the Caribbean. The figures of obsolete stocks indicated below are only preliminary indications and so they are not near to actual figures in tonnes if thorough and detailed investigations are made in each of the countries and also if containers, heavily contaminated soil, etc. are taken into consideration.

Current situation

With the support of the FAO programme for the prevention and elimination obsolete pesticides, pre-inventories and inventories of obsolete pesticides have been prepared in Latin America and the Caribbean. The results are shown in the table below.

Total number of obsolete pesticides in Latin America and Caribbean
(Source: FAO, 2004)

No	Country	Obsolete stocks in tonnes	Year	No	Country	Obsolete stocks in tonnes	year
1	Argentina	42	2001	12	Mexico	1,151	2001
2	Belize	15	2000	13	Nicaragua	1,031	2001
3	Bolivia	160	2003	14	Panama	43	2001
4	Brazil	288	1999	15	Paraguay	315	2004
5	Colombia	317	2001	16	Peru	24	2001
6	Costa Rica	734	2001	17	Santa Lucia	6	2002
7	Dominica	443	2002	18	St. Vincet & Grenada	1	2001
8	El Salvador	176	?	19	Surinam	31	?
9	Equador	16	2001	20	Trininada & tobago	71	2000
10	Guatmela	200	2001	21	Uruguay	15	1999
11	Honduras	169	2001	22	Venezuela	1,426	2004
Total		**2,560**				**4,114**	
Grand total						**6,674**	

The above total of obsolete stocks given by country in tonnes is a result of preliminary inventories undertaken in 22 countries and as indicated above should considered incomplete simply because the data doesn't include empty containers, highly contaminated soil, buried pesticide waste and contaminated materials such as spraying equipment and undeclared waste. It is also probable that these inventories do not include all stocks of obsolete pesticides in each country.

About 99% of the preliminary inventories were prepared more than a year ago and thus the quantities are likely to have greatly increased as was the case for example in Bolivia and Paraguay . Bolivia's preliminary inventory was 14 tonnes but subsequent inventory identified 160 tonnes. Likewise Paraguay's initial inventory was 79 tonnes but subsequent inventory gave 315 tonnes; without taking into consideration some 4,000 tonnes of pesticide contaminated cotton seeds, and therefore even in these two countries further verification will be needed. In fact in the case of Paraguay the total of 315 tonnes was discovered after a pesticide warehouse caught fire and the Government requested FAO assistance and assessment of the situation. This investigation confirmed that the condition under which the stocks were kept posed serious problems to human health. The results of the assesment of the obsolete stocks led to the development of an FAO Technical Cooperation Project (TCP) to undertake a detailed inventory and to find ways to eliminate the stocks that might be identified and to implement adequate measures for avoiding accumulation of obsolete stocks in future.

In Colombia FAO continues supporting the project of stabilization of affected sites considered as high risk to human health and the environment.

In Bolivia, besides having supported the process of inventory taking of obsolete pesticides, FAO is committed to conducting the First Latin American workshop for training of trainers in the management of obsolete pesticides. This is scheduled to take place in Bolivia in November 2004. The workshop is part of a process of initiating methods for stabilization of stocks in countries that face high risks of environmental contamination and affecting human health. Bolivia has a project designed for disposal and prevention of accumulation of obsolete stocks. However, as the necessary funds are not yet available the country keeps on looking for financial support from donors for the implementation of the project.

Obsolete pesticides identified during the process of inventory

In general, the inventory in Bolivia revealed that different pesticide groups exist including organochlorines, carbamates, organophosphates, organometallics and others that are found either in mixed conditions or kept separately. It is known that 13 % of the obsolete pesticides identified are POPs. Most of the pesticides identified are kept or located at central urban areas or in populated rural communities under storage conditions that are unacceptable and substandard. Some stores are also close to collapsing or have collapsed with no roofs or doors. The stores either belong to the State or the private sector.

A few examples of the obsolete pesticides discovered during the process of inventory should provide facts of the dangerous and hazardous situation as shown in the following pictures taken during visits to affected sites.

Examples of very common sites of spills and leaks of obsolete pesticides in almost all affected sites

Obsolete pesticides and contaminated soil left behind after a warehouse caught fire in Paraguay

Examples of obsolete pesticides and containers in very poor condition

Obsolete pesticides are commonly found to be handled without appropriate precaution and in many instances are used, buried or burned.

An indication of spread of obsolete pesticides in Latin America is shown by the size of logo placed in the countries shown on this map.

Causes of accumulation of obsolete Pesticides

The main causes of accumulation are poor or inappropriate management, inefficient pesticide inspection, poor or unacceptable storage systems, mismanaged commercialisation, excessive purchases and donations that are not coordinated, limited or no knowledge about the inherent danger of pesticides and their misuse among the population of all affected countries. Added to this, there are widespread management difficulties or problems typical of developing countries. These include lack of economic resources, lack of expertise, unawareness or widespread ignorance referred to as high indexes of illiteracy, lack of facilities or technology, environmental degradation and above all corruption and lack of political will to solve the inherent problems of each of these areas. Therefore the problem keeps getting worse and so does the scale of obsolete pesticides. While the problem is already unmanageable and difficult, pesticide consumption is on the increase. For example in 1999, the consumption of herbicides of four countries namely, Brazil, Ecuador, Paraguay and Uruguay was 38.868 tonnes and in 2001 the consumption level in these countries increased to 57.889 tonnes i.e. a net increase of 49%.

Conclusions

The total of 6.774 tonnes of obsolete pesticides indicated above is the tip of an iceberg of the real problem and therefore should be considered as a reference point for the existence of obsolete pesticides in the region which is far beyond imagination.

The very existence of obsolete pesticides in unacceptable and dangerous conditions in each of the countries constitutes huge, and in many cases irreversible environmental problems not only for the countries but also for the whole region.

Recommendations

1. It is important that the Latin American and the Caribbean countries develop a regional project with some basic and well-thought out strategies to come up with appropriate and permanent solutions to the problems of obsolete pesticides. It should be ensured that countries comply with the principles and guidelines of the FAO Code of Conduct on the Distribution and Use of Pesticides and also accept the guidelines of the various Conventions on environmentally harmful chemicals including pesticides.

2. There should be common strategies that should be implemented leading to exchange of information among the countries concerned to address common problems, to eliminate obsoletes stocks, avoid future accumulation of obsolete stocks, prevent environmental degradation, develop policies, protect the environment, minimise contamination of foods, fauna, flora and to protect and safeguard human health.

3. There is a need for positive, common and collaborative strategies for the region. It is therefore important to form a body of representatives of Latin American and the Caribbean to bring together a dedicated expert group that would focus on human and environmental resource to play key roles in influencing governments by showing the urgency of the need to promote sustainable agricultural development.

Prevention and Disposal of Obsolete Pesticide Stocks in Ethiopia

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Project outline

The Belgian Ministry of Cooperation and Development (DGCD) provided financial support to the Ethiopian disposal of obsolete stocks in addition to other donor sources including contributions by the Ethiopian Government. The level of the budget contribution in figures is €3,552,000 (i.e. €3,470,000 and from Ethiopia, €82,000). The partner Government Authority on the side of the Ethiopian Government is the Ministry of Agriculture and Rural Development (MoARD)

The Implementing agency on the side of the Belgian Government is the Belgian Technical Cooperation (BTC). The Partner agencies of the project include FAO, World Bank, Finland Japan and GEF as and when the ASP funding becomes available. The planned Starting date of the project operation was March 2003 but actually it started in November 2003 during which recruitment of Project Staff were initiated and a meeting of the Steering Committee was conceived. The project is scheduled to last a total of 36 months.

Information on BTC

The BTC Headquarters in Brussels

If one is interested to know more about BTC, it is situated in Brussels and can't be missed and therefore advantage should be taken to visit when possible.

The Belgian implementing agency (BTC) was created in 1999 and became operational in 2000. It is responsible for formulation and implementation of Belgian bilateral projects. It is a Public company with the purpose aimed at social affairs. It has 250 bilateral projects under its management distributed in 30 countries operating with an overall budget of €100 million per year. It has an employment force of 100 staff based at its Headquarters in Brussels

supported by an additional 140 experts assigned in various projects and also has 18 permanent Representations in 18 partner/collaborative countries.

The Ethiopia project

The present project being the second phase of the disposal operation it is not considered a new project. The first phase was implemented by FAO with the financial support of the Governments of the Netherlands, Sweden and the USAID. Therefore this project is a continuation of the Phase-one to get rid of the obsolete stocks that were left behind because of lack of the necessary funds.

Major objective of the project

Obviously the main input to the Ethiopia project is finance. The project focus is therefore is on safe disposal of 1,000 tonnes of obsolete pesticides existing in over 700 affected sites. Among others, the process includes identification, cleaning up, decontamination, repackaging, collection, centralization at several interim and within a total of eight major collection centres which will be followed by transporting shipping overseas and destruction of the toxic waste concerned under high temperature incineration facility operating close to 1,200^{o}C.

Major Concerns

As highlighted by FAO on several occasions, obsolete, banned and unwanted pesticide stocks in Africa are major environmental and human health concerns in almost all developing countries and therefore Ethiopia is not an exception. Obsolete stocks are widespread covering almost the entire country in Ethiopia and most of the obsolete pesticide stocks are heavily leaking or had already leaked and contaminated the environment. Most are very poorly managed and/or kept in unacceptable or substandard stores or left in the open with no trained person/s to manage them while being kept either in stores or in the open without shade or shelter. Pesticides that are being identified often lack labels and therefore the names, types and origins of the chemicals concerned are difficult to determine thus requiring expensive and often difficult analytical procedures. Ultimately it is only proper and careful handling, safe and internationally acceptable methods of disposal that should be implemented to get rid of the existing stocks concerned at high cost.

Main difficulties

The main difficulties ahead in connection with the operation of the project is technical complexity such as identification, repackaging, shipment and disposal that should have to strictly comply with international procedures and regulations and the basic guidelines of the United Nations Basel Conventions (UNEP/BC) which controls or restricts the transboundary movements of toxic wastes.

Conclusion

The experience is and will be challenging for the Belgian Technical Cooperation simply because the Belgian bilateral cooperation had no specific expertise in the field of obsolete pesticides or their destruction.

Global Environmental Facility (GEF) and implementation of the Stockholm Convention

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Background on the GEF

GEF is an independent financial mechanism which was founded in 1991 to assist developing countries and countries with economies in transition to protect the global environment. As of May 2003 its total member countries was 174 and it is the single largest source of funding to activities benefiting the global environment.

The Focal Areas of the GEF cover the following six major areas

1. Biodiversity
2. Climate change
3. International waters
4. Ozone depletion
5. Land degradation
6. Persistent organic pollutants

Portfolio of Projects

The portfolio of project financing is distributed in various operational programmes in the following proportions:

1	Biodiversity	40%
2	Climate Change	39%
3	International Waters	12%
4	Ozone Depletion	5%
5	Multi-focal	4%

GEF's Unique Role

GEF plays key roles in (a) complementing existing funds but not substituting existing aid programs, (b) Supporting projects with global environmental benefits for which official development funds are not normally available, (c) Pays the added (i.e. incremental) costs necessary to protect the global environment beyond what is necessary for national development.

Global Environmental Conventions

- GEF is the “financial mechanism” for the following conventions:
- Convention on Biological Diversity
- Convention on Climate Change
- POPs Convention (interim)
- Convention to Combat Desertification
- GEF collaborates closely with other treaties and agreements to reach common goals (e.g. International Waters, Montreal Protocol)

Investments since 1991

The investments so far undertaken by GEF have been encouraging, taking into consideration the following financial support it provided:

1. A total of $4.5 billion in grants, supplemented by more than $13 billion in co-financing
2. More than 1,300 projects in 140 developing countries and transitional economies
3. More than 3,800 small grants directly to NGOs and communities

Governance

The GEF Council constitutes 32 members; 18 recipients and 14 donors, representing constituency groups of all member countries. It meets every six months to review and approve all projects, business plans and policies. The GEF Assembly is made up of representatives of all member countries. They meet every four years to review general policies, operations, and amendments to the GEF Instrument. Conventions provide guidance on policy and program issues.

GEF Partner Agencies

GEF's partner agencies include the following 10 members:

- United Nations Development Program
- United Nations Environment Programme
- World Bank
- African Development Bank
- Asian Development Bank
- European Bank for Reconstruction and Development
- Inter-American Development Bank
- Food and Agriculture Organization
- UN Industrial Development Organization
- International Fund for Agriculture Development

Project execution

Project execution is undertaken mainly by the following categories of organisations or sectors:

1. Government Agencies
2. UN Specialized Agencies
3. Non-Governmental Organizations
4. Private sector and
5. Institutes / Universities

Operational principles

The principles governing the GEF's operation of project undertaking are governed by the following eight main criteria:

- Country-driven and endorsed by host Government
- Produce identifiable global benefits
- Participation of all affected groups and transparency
- Consistency with the Conventions
- Possess strong scientific and technical merit
- Financially sustainable and cost-effective
- Include processes for monitoring, evaluation, and incorporation of lessons learned
- Play catalytic role that leverages other financing

GEF's position as a co-financier

Basically GEF is a co-financier and the key concept behind it is that it focuses (a) on providing “new and additional” funds to address global environmental issues and that, (b) additional sources of funding must complement the GEF grant fund.

Funding Categories

The funding categories that GEF takes into consideration are the following:

- Full-size projects ($1 million and up)
- Medium-sized projects (up to $1 million)
- Financing is available to prepare projects
- (Project Development Fund, PDF-A up to $25,000 and PDF-B up to $350,000; more for regional projects)
- Small Grants Programme (up to $50,000)
- Enabling activities (up to $500,000 for NIPs)

Preparing for Implementation of the Stockholm Convention

GEF is the interim financial mechanism for the Stockholm Convention (as indicated in Art. 13 and 14). In October 2002, the GEF Assembly added POPs to the GEF mandate and since then GEF has committed $250 million for POPs activities under the current replenishment period which runs for four years i.e. 2003 to 2006.

Milestones

The major milestones achieved to date under GEF include the following:

1995	Operational Strategy; explicit reference to POPs in Operational Program No 10 of International Waters Focal Area
1998	Overall Performance Study
1998	Strategy for addressing POPs in context of IW
1998/99	Development of: (a) Strategic priority setting projects (b) (RBA, pilot NIPs) (c) Demonstration projects (DDT, pesticides)
Jan 1999	INC-2 "Readiness" to serve as financial mechanism
Feb 2000	STAC brainstorming on POPs
May 2000	GEF Council: "Addressing POPs"
Nov 2000	GEF Council: "Draft Elements of an Operational Program"
May 2001	GEF Council: "Initial guidelines for POPs enabling activities"
Oct 2002	GEF Assembly: Adoption of POPs Focal Area

Eligibility to access GEF's fund

The following are conditional to accessing GEF's financial support for POPs related activities:

- Developing countries or country with economy in transition;
- For POPs National Implementation Plan funding;
- Countries should be signatory or party to the Convention, or be in the process of becoming a party in order to receive enabling activity funding;
- For further activities beyond NIPs country/countries must be party to the Convention (project preparation funding is possible during the interim period).

Initial assistance provided to NIPs

GEF is helping 122 countries to prepare *National Implementation Plans* for the Stockholm Convention. This activity is known in the GEF as ***"***enabling activities*."* The NIP is intended to help countries identify and prioritise capacity building, policy and regulatory reforms, and investments needed to implement the Stockholm Convention. This is required under Art. 7 of Convention

Currently, more than 122 countries are working with the GEF for the preparation of their NIP as follows:

Proposals approved under expedited procedures	98
Proposals pending approval	8
Countries following normal project cycles	4
Countries part of UNEP/GEF pilot project	12

National Implementation Plans

Progress/Priorities of NIPs developments are focused on the following points:

(a) Foundational capacity building (including NIPs)
(b) Policy/regulatory reforms and investments based on priorities that emerge from the NIPs
(c) Demonstration of innovative technologies and practices (e.g. alternatives to DDT; destruction technologies)

Draft operational programme (I)

Expected outcomes

(a) Institutional and human resource capacities are built and strengthened;
(b) Policy and regulatory frameworks for management of POPs and other chemicals are strengthened;
(c) Reduction in the use of POPs pesticides (vector control, termite control and agricultural production).

Draft operational program (II)

Expected outcomes (2):

1. Safe and cost-effective alternatives to POPs available;
2. Stockpiles of POPs are managed and wastes contained or disposed of.

Some POPs-related Activities undergoing or in progress

1	PCB management	(Algeria, China, Moldova)
2	Destruction technologies	(Slovakia, Philippines)
3	Disposal of Obsolete Pesticides,	(African Stockpile Programme)
4	Alternatives to termiticides,	(China; Global multi-country)
5	By-products: Hospital Wastes,	(Global multi-country)
6	Alternatives to DDT,	(Central America, East & South Africa)
7	STAC workshops	

Summary

- The GEF was designed to provide incremental resources additional to traditional bilateral or multilateral assistance
- The GEF is the interim financial mechanism of the Stockholm Convention
- US$ 250 million have been committed for POPs under the current replenishment
- The GEF is assisting 122 developing countries and countries with economies in transition to prepare a NIP
- The GEF is already assisting and will assist countries to implement their NIP

Contacts and sources of information

GEF Focal Points:
http://theGEF.org/participants/focal_points/focal_points.html
Project database:
www.gefonline.org

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The GTZ experience on obsolete stocks

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Database and possibilities for taking advantage of it

The GTZ presentation focused on an improved database system for taking inventories of obsolete pesticide stocks and other chemicals (POPs) in developing countries.

The database provides easy data entry as well as a variety of methods for data analysis and presentation. When data is collected from different countries, it can be organized and displayed either across a given national inventory or with reference to a series of countries.

Data entry is supported by reference tables of relevant and related information, and while entering the data its validity can be verified where appropriate and as often as needed. All the functions of the database are executed by buttons and a toolbar without difficulties. The system is equipped with an extensive evaluation system. The most important one is the information system to summarize different data from selected stores, material Safety Data sheets, UN Numbers, analytical results, WHO Classification etc. The 'Product Specific Information base' is to aggregate data regarding a generic term, e.g. a location or product, etc. In addition to pre-selected buttons, it is also possible to search for specific information. Within the database a special function helps to integrate information about the infrastructure of the stores, photos of affected sites concerned and the condition within stores, condition of obsolete pesticide stocks and maps of location of sites.

The Database “Inventory Data Information System (IDIS)

IDIS is based on Microsoft (MS) Access**.** GTZ is willing to provide the database on a voluntary base to the FAO, AGPP, Prevention and Disposal of Obsolete Pesticides Project as a contribution for the effort made or being made in taking inventories of obsolete pesticide stocks in developing countries and particularly for use in connection with the African Stockpile Programme.

Some activities and requests received

GTZ received a request from the Government of Nepal to support the disposal of 74 tonnes of obsolete pesticide stocks from the high risk store of Amlekhganj. Subsequently, under the guidance of BMZ, based on GTZ's management of projects related to Chemical Safety, CropLife International and Bayer AG agreed jointly on a technical proposal aiming to initiate an analytical survey to evaluate the situation within the relevant sites in Nepal. However, to date the Government of Nepal has not reacted positively to the offer. This is the case despite Nepal having submitted a request for assistance at the outset.

GTZ is also planning a disposal operation in Pakistan to safeguard, collect and dispose of up to 40 tones of a mixture of obsolete pesticides located in Karachi, Pakistan. The project will be carried out on behalf of a former producer of the pesticides concerned.

Basel Convention on the control of transboundary movements of hazardous wastes and their disposal

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Basel Convention (BC)

In 1989 the Basel Convention (BC) was adopted and on 05 May 1992 entered into force. In September 2004 a total of 162 countries that are parties to the Convention are scheduled to meet at the Conference of Parties to be held in Geneva.

The main objectives of the BC are (a) regulation of transboundary movement of hazardous wastes and (b) enhancement and promotion of environmentally sound management of hazardous wastes including pesticides as waste.

The control system for transboundary movement was initiated in 1989 and in 1995 the BAN amendment was adopted (by a decision COP III/1 1995) which has been ratified by 49 parties. In 1999 the protocol of liabilities and compensation was adopted (by Decision COP V/29, 1999).

Some features of the Convention that are specifically relevant to disposal of obsolete pesticides from developing countries are the following:

Notification and control System (Art. 6) (1)

The State of export shall notify, or shall require the generator or exporter to notify, in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes or other wastes.

The State of import shall respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information.

Notification and control system (Art. 6) (2)

The State of export shall not allow the generator or exporter to commence the transboundary movement until it has received written confirmation that:

The notifier has received the written consent of the State of import; and

The notifier has received from the State of import confirmation of the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question.

Notification and control system (Art. 6) (3)

Each State of transit which is a Party shall promptly acknowledge to the notifier receipt of the notification. It may subsequently respond to the notifier in writing, within 60 days, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information.

Notification and Control System (Art. 4)

Require that hazardous wastes and other wastes to be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal.

Require that hazardous wastes and other wastes that are to be the subject of a transboundary movement to be packaged, labeled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labeling, and transport, and that due account is taken of relevant internationally recognized practices.

Harmonization of forms and procedures for notification between OECD, EU and the Basel Convention, is scheduled for consideration by COP 7 in October 2004.

The Environmentally Sound Management (ESM)

General obligation of the Parties of Art. 4 ensures that the following major points are implanted or adhered to:

- Generation of hazardous wastes is reduced to a minimum,
- Availability of adequate disposal facilities is ensured,
- Transboundary movement is reduced to a minimum,
- Management of wastes in an environmentally sound manner, including disposal,
- Cooperate in activities with other Parties in order to improve ESM and to prevent illegal traffic,
- Technical Guidelines for ESM shall be decided by the COP, and
- Development of Technical Guidelines, e.g. on POPs waste.

Implementation of the principle of "ESM"

Implementation of the principle of Environmentally Sound Management has distinct points that it addresses or has addressed including the following:

- Development of Technical Guidelines (since 1992) on specific waste streams including treatment technologies, etc.
- Establishment of Regional Centres for Training and Technology Transfer (COP/III, 1995
- The Basel Declaration on Environmentally Sound Management of hazardous wastes (COP V/1, 1999),
- Strategic Plan for the Implementation of the Basel Convention to 2010 (COP V/1, 1999,
- Partnership programme and project developments (since 2002), e.g. Mobile Phones Partnership,

- Cooperation with other UN entities and partners, e.g. Stockholm Convention and Rotterdam Convention, World Health organization (WHO), UNEP, FAO, etc.

Basel Convention Regional Centres (BCRCs)

Main functions

1. Training, technology Transfer, information exchange, consulting, re-awareness-raising
2. Important role in the implementation of the Basel Convention:
3. Entrusted with the implementation of priority measures of the Strategic Plan
4. Carry out projects within the framework of the Strategic Plan

OEWG 1: 15 projects financed, totalling US$ 880,000
OEWG 2: 6 projects financed, totalling US$ 320,000

1. Business plans of the centres: - identify workplan, time table, etc
2. Framework Agreements: - two Framework Agreements have been signed for the South Pacific Regional Environmental Programme (SPREP) and for the Basel Convention Coordinating Centre in Uruguay

Operational Regional Centres

At present there are a total of 13 Basel Convention Regional Centres (BCRCs) that are in operation as listed below:

Regions	Regional Centres
Africa	Egypt, Senegal, South Africa, Nigeria
Asia and Pacific	China, Indonesia, SPREP
Central and Eastern Europe	Russian Federation, Slovakia
Latin America and the Caribbean	Argentina, El Salvador, Trinidad and Tobago, Uruguay

Technical Guidelines for POPs waste

POP	Lead country	Status
POPs	Canada	To be adopted by COP 7 in October 2003
PCBs, OCTs, PBBs	Canada	To be adopted by COP 7 in October 2004
DDT	Mexico	1st draft expected before COP 7
Pesticides and HCB	SBC/IHPA	1st draft expected before COP 7
Dioxins and Furans	Australia	1st draft March 2004

Projects on obsolete pesticides

African Stockpiles Programme (ASP): The Secretariat of the Basel Convention (SBC) is a member of the African Stockpiles Programme (budget for phase 1 is estimated at US$ 50,000,000). Other partners include: World Bank, FAO, WWF, African Union, UN-ECA, etc.

The Basel Convention Regional Centre in Trinidad and Tobago, has been contracted by UNEP Chemicals and the SBC to undertake survey of obsolete stocks of pesticides, and POPs pesticides. This is with the view of preparing a regional proposal for the disposal of obsolete pesticides in the Caribbean.

The BCCC Basel Convention Coordinating Centre in Uruguay has been selected as one of the institutions to develop and conduct a case study of regional and sub-regional centres for the purpose of facilitating capacity building and transfer of technology in accordance with article 12 of the Stockholm Convention on POPs. A regional workshop is being carried out from 6 to 9 September 2004 in Caracas, Venezuela with the view of sharing the experience of Venezuela as regards the disposal of obsolete pesticides.

FAO with a contribution of US$ 10,000 surveys capacity in Latin America and the Caribbean for the environmentally sound destruction of obsolete pesticides and the remediation of contaminated sites carried out by the BCCC in Uruguay. (FAO provided funds of US$10,000).

Activities of the Basel Convention entities in Central and Eastern Europe

Regional Workshop on the Preparation of a Regional Approach for the Environmentally Sound Management of POPs as Wastes in Selected Central and Eastern European Countries took place in (May 2004) in Bratislava. Also Development of follow-up projects on the ESM of PCB wastes and PCB containing equipment and the ESM of obsolete stockpiles of (POPs) pesticides are being followed up.

UNEP Chemicals concerning obsolete stocks

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UNEP Chemicals recalled its cooperation with FAO on obsolete stocks of pesticides in the Latin American region and its participation in the Africa Stockpiles Programme (ASP). Another area of UNEP Chemicals involvement in obsolete stocks which had also been discussed in details earlier in the meeting was the development of National Implementation Plans (NIPs) for the Stockholm Convention.

UNEP was supporting over 50 NIP projects as a GEF Implementing Agency. The projects were being managed by UNEP's Division of GEF Coordination in Nairobi, while UNEP Chemicals continued to provide general support through such activities as regional training workshops and the publication of technical guidance, often in collaboration with agencies like FAO and WHO, for example in relation to DDT, termite control and obsolete stocks.

UNEP Chemicals also provided information on a higher-level initiative, the "SAICM" or Strategic Approach to International Chemicals Management, for which it is the Secretariat. SAICM had the potential to address some of the needs identified for improved donor coordination and resource mobilization during the present consultation on obsolete pesticides.

SAICM was mandated by UNEP Governing Council and endorsed by the World Summit on Sustainable Development (WSSD) in 2002. It seeks to engage all stakeholders in a constructive planning process to give new impetus and cohesion to international efforts on human health and environment. In effect it will provide a road map for international chemical safety, *inter alia*, to mainstream and prioritise chemicals management as a sustainable development issue. While not yet agreed, it is likely that SAICM could comprise a Ministerial political declaration, a strategic policy overview and a detailed plan of implementation with concrete targets and timetables until 2020.

Preparations for SAICM have been guided by an 11-organization steering committee made up of FAO, GEF, IFCS, ILO, OECD, UNEP, UNIDO, UNITAR, WHO and the World Bank. The actual development of SAICM is being done by the so-called preparatory committee or "Prepcom". Prepcom was held in Bangkok in November 2003. There were about 450 participants including 128 Governments and over 60 NGOs drawn from a good range of stakeholders such as agriculture, environment, health, labour, industry, development and foreign affairs.

The initial session in Bangkok was largely scoping, that is establishing the (very large) range of issues that might be covered by SAICM. The list includes policy issues, coordination requirements and capacity building.

The second session will be held in Nairobi from 4 to 8 October 2004. It will need to give more structure to SAICM and make as much progress as possible since there will be time for only one further Prepcom session, in 2005, prior to the final conference scheduled for early 2006 in conjunction with UNEP Governing Council. A key objective for SAICM is that it be adopted not only by UNEP Governing Council but also subsequently by the governing bodies of other international organizations so that chemicals management is formally integrated and prioritised in their work programmes in a coherent fashion.

International Programme on Chemical Safety (IPCS) Pesticide Package

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The International Programme on Chemical Safety (IPCS) Pesticide Package system with reference to safety and pesticide management encapsulates the following four areas of basic layout:

Pesticides Data Management System
Pesticides Databank
Product Writer
Training Manual Multilevel Course

Pesticides Data Management System

Pesticides Data Management System addresses issues of Pesticide Exposure Reporting System (PER) with a focus on Recording, collection, pooling, analysis and information on pesticide exposures and poisonings.

IPCS Pesticides Databank

The data bank takes into consideration the following 10 important points:

1. Environmental Health Criteria on pesticides,
2. Health and Safety Guidelines on pesticides,
3. Poisons Information Monographs on pesticides,
4. International Chemical Safety Cards on pesticides,
5. IARC's publications on pesticides,
6. JMPR publications,
7. WHO Classification of Pesticides by Hazard,
8. Manual on Diagnosis and Management of Pesticide Poisoning,
9. FAO/WHO Data Sheets on Pesticides,
10. Contact information on other reliable pesticide sites on the web.

Product Writer

Product writer, highlights and takes into consideration the 19 major points listed below:

1. Identity,
2. Composition,
3. Hazard Identification,
4. First Aid/Management,
5. Fire Fighting Measures,
6. Accidental Release Measure,

7. Handling and Storage,
8. Exposure Controls/Personal Protection,
9. Physical and Chemical Properties,
10. Stability and Reactivity,
11. Toxicological Information,
12. Ecological Information,
13. Disposal,
14. Transport Information,
15. Other Information,
16. Presentation and Packaging,
17. Illustrative Cases/Incidents,
18. Documentation History,
19. Annotations.

Multilevel course on the safe use of pesticides and on the diagnosis and treatment of pesticide poisoning

This is an important point as it is directly related with issues and problems affecting both the environment and human health. Training is one of the basic necessities without which it is impossible to guarantee sound pesticide management. The various elements that need to be covered during a given training depend, on levels of training offered and the target participants. The IPCS trainings are designed to accommodate the objectives that need to be achieved. This is outlined in few of the following paragraphs.

Levels of modules in practice

Basic: A simple level for participants in any course

Intermediate: A more detailed level for participants with operational responsibilities, or who work with compounds of high hazard, and need more understanding of preventive measures.

Advanced: Level for participants with a scientific background, or who are trained in the management of poisoning.

Module A: General

Pest and pesticides

- Pesticides names according to target species,
- Pesticides actions on target species,
- Systemic pesticides,
- Technical product, active ingredient and formulation,
- Household pesticides toxicity,
- Definitions of hazard and risk.

Section 2: Absorption and effects of pesticides

Subject A: Absorption
Routes of entry: through
the skin, mouth, lungs, broken skin

Subject B: Adverse effects of pesticides

- Acute and long term effects,
- Body storage: Dose and effects,
- Relationship of dose to exposure or effects,
- Pesticides and cancer,
- Pesticides and endocrine disruption and reproductive effects.

Section 3: Personal protection

Subject A: Protective hygiene

- Objective of protection,
- Washing,
- Eating and drinking at work,
- Smoking at work,
- Chewing,
- Household pesticides,

Subject B: Insecticides

The main part of the human body to be paid attention to ensure protection include, head and neck, lower legs and feet, hands, eyes, lungs, washing and clothing of equipment.

Section 4: Protection of others

Subject A: Other people

Introduction to the subject matter to highlight the importance of transport by truck, boat, storage of pesticides, locking up, storing and using household pesticides, exclusion from sprayed crops.

Subject B: Other organisms: The environment

- Results of pesticide contamination,
- Disposal of wash water in a pit,
- Disposal of containers by burying,
- Disposal of containers by burning,
- Decontamination of containers,
- Disposal of large quantities,
- Disposal of obsolete pesticides.

Section 5: Chemical groups and modes of action of pesticides

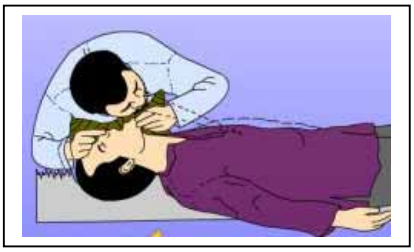
Subject A: **General points**

- Names of pesticides,
- Modes of action of pesticides,
- Mixtures of pesticides in the field,
- Manufactured mixtures of pesticides.

Subject B: **Insecticides**

- Organophosphorus compounds
- Carbamate compounds
- Organochlorine compounds
- Pyrethroid compounds

Section 6: First aid treatment of pesticides poisoning



Subject B: Treatment

- General principles,
- Organophosphorus poisoning,
- Carbamate poisoning,
- Organochlorine poisoning,
- Pyrethroid insecticide poisoning,
- Anticoagulant rodenticide poisoning,
- Calciferol poisoning,
- Chloralose poisoning,
- Thallium poisoning,
- Paraquat and Diquat poisoning,
- Glyphosate poisoning,
- 2,4 Dichlorophenoxyacetic Acid (2, 4D) poisoning,
- Pentachlorphenol poisoning,
- Poisoning by metals,
- Thiocarbamate fungicide poisoning.

Section 7: Medical treatment of pesticides poisoning

Subject A: **History, signs and symptoms**

- History,
- Organophosphorus poisoning,
- Carbamate poisoning,
- Organochlorine poisoning,
- Pyrethroid insecticides,
- Anticoagulant poisoning,
- Calciferol derivatives poisoning,
  - Fluoroacetate poisoning,
  - Zinc Phosphate poisoning,
  - Chloralose poisoning,
  - Thallium poisoning,
  - Paraquat and Diquat poisoning,
  - Glyphosate,
  - 2, 4 2,4 Dichlorophenoxyacetic Acid,

- Pentachlorophenol and related compounds,

Section 8: Other related materials

Subject A: Administrative
- Selection of staff
- Records of exposure to pesticides
- Reporting of cases poisoning

Subject B: Scientific subjects
- Field testing of activity
- Interpretation of cholinesterase results

Section 9: Evaluation

Other references that should be consulted from time to time and when the needs arise include the following:

1. Preventive health risks from the use of pesticides in agriculture,
2. Instructions for treatment and use of insecticide-treated mosquito nets,
3. Management of poisoning,
4. International Cod of Conduct on the Distribution and use of pesticides,
5. The WHO recommended classification of pesticides by hazard,
6. Pesticides training tool kit, a Guide to community workers.

USAID US Foreign Aid

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The paper submitted was wide ranging and not specifically devoted to issues and problems of obsolete pesticide stocks but rather covered wider policy issues on aid and aid related guidance. An extract of the US-Foreign Aid overview is highlighted below:

The 2002 National Security Strategy assigns development a new prominence in U. S. national security, along with diplomacy and defence. At the same time, there is an intense debate in the foreign policy community about how to enhance effectiveness of foreign aid.

Evolving role of foreign assistance

Given many threats to national security in the post-Cold War, post 9/11 world, U.S. foreign assistance must address more than humanitarian and developmental goals. Conditions of instability and insecurity that arise from terrorism, trans-national crime, failing states, and global disease must be mitigated for sustainable economic and social development to take root and flourish.

The U.S. foreign assistance now must be understood as addressing five more operational goals.

1. Promoting transformational development
2. Strengthening fragile states
3. Providing humanitarian relief
4. Supporting U.S. geo-strategic interests
5. Mitigating global and trans-national ills

Each goal presents distinct challenges, and achieving each will require different knowledge and response. While all require a deep understanding of the local context and drivers of change, each must be approached with different consideration for risk, programme design, and accountability.

From the perspective of long-term U.S. interests, the goal of transformational development remains the best investment. Only through building good policies, stable institutions, and local capacity will developing countries create their own prosperity and their own security. As a nation develops, it has less need for external aid to deal with disasters and conflict or to address disease pandemics and trans-national crime.
Stable, prosperous, democratic nations make better partners for the United States as they address their own interests from a foundation of interdependence. And, such countries offer growing opportunities for mutually beneficial trade investment.

Not all countries enjoy the conditions needed for transformational development. In countries that are not committed to reform, conventional development programmes are unlikely to advance development. In fact, assistance actually may mask underlying instability or contribute to state fragility. Hence, it is critical to invest resources in these countries very carefully, with clear expectations as to what is possible in the short term, and with flexibility tailored to changing circumstances.

Increasing the effectiveness and policy coherence of foreign assistance

Donors have learned much about development and aid effectiveness in the past five decades, including the following:

- Foreign aid is essentially supportive, while local leadership and participation are critical.
- Progress is primarily a function of commitment and political will to rule justly, promote economic freedom, and investment in people.
- Institutions, not resources, matter most.
- Foreign aid and trade are complements to - not substitute for - each other.

There are clear avenues for improving U. S. foreign aid effectiveness, including:

- Clarify the goal of aid and align the resources with those goals.
- Allocate aid across and within countries more selectively.
- Emphasize strengthening institutional capacity.
- Place more emphasis on host country partnership, ownership, and internal participation.
- Pay more attention in the constraints of absorptive capacity.
- Improve donor coordination and harmonization.
- Ensure more timely and effective graduation from traditional development assistance.

What must change to achieve greater effectiveness and policy coherence

Important changes are already underway, including:

USAID and State coordination - building on the National Security Strategy, USAID and the State Department have recently created a Joint Plan to harmonize foreign policy and development goals. Both are increasing administrative and policy coherence through the creation of the Joint Management Council and Joint Policy Council. In all core goal areas, State and USAID will work more closely to build the political commitment and that underpins reform and progress.

USAID and Millennium challenge corporation - USAID will assure strong complementarity between its development portfolio and that of the MCC, employing principles of selectivity

based on commitment and performance in countries that can aspire to MCC eligibility or are good candidates for transformational development.

USAID Fragile States Strategy - USAID will improve its strategic analysis of state fragility and conflict vulnerability. USAID will also identify new programme approaches for use in selected fragile states and increased organizational responsiveness to the internal dynamics of these states.

Resources Rationalization - Strategic management of resources (including policies, strategies, resource allocation, programme guidance, and results reporting) will be phased in to better distinguish and align resources by specific area within USAID's strategic budgeting process.

With support from key executive and legislative decision makers, further reforms could help achieve even greater effectiveness and coherence.

Increased availability and flexibility of resources for transformational development and fragile states are needed to achieve the core foreign aid goals. With the current budget structure, geo-strategic concerns and transformational issues are well funded. In countries that will not immediately benefit from the MCA, sufficient resources appropriate for transformational development are quite limited relative to needs. In particular, funds that support economic growth strategies are scarce.

Recommendations

1. The meeting considers the Africa Stockpiles Programme (ASP) to be the single most important and prominent initiative dealing with obsolete pesticides on the international agenda, but notes with disappointment the continued delays in implementation of the Programme. The meeting urges the ASP partners and in particular the World Bank as Implementing Agency for the GEF grant to the ASP, and as administrator of several donor funds to the ASP, to expedite implementation of the programme without further delay.

2. The meeting acknowledges the success of the FAO Programme on the Prevention and Disposal of Obsolete Pesticides in raising international awareness about the health and environmental risks from obsolete pesticide stocks and providing guidance and technical assistance to countries in preventing and eliminating obsolete pesticides.

3. The meeting noted the direct link between the issue of obsolete pesticides and the entry into force of the Stockholm Convention on Persistent Organic Pollutants which requires the production and use of POPs chemicals to cease and stockpiles of POPs to be safely eliminated. The meeting also notes that the Global Environment Facility acting as interim financial mechanisms in support of the Stockholm Convention administers funds destined to support the implementation of the Convention in GEF eligible countries. Since the majority of POPs chemicals are pesticides and since these feature prominently in obsolete pesticide stockpiles in developing countries and economies in transition, the FAO Programme on the Prevention and Disposal of Obsolete Pesticides is urged to access GEF funds to support these activities.

4. Mozambique has a well-developed project on the inventory and risk assessment of obsolete pesticides and has raised a significant proportion of the funds needed for cleanup and prevention of obsolete stocks. The government is not however, in a position to ratify the Stockholm Convention in time to meet the deadline imposed by the ASP for inclusion in Phase I of the Programme. The meeting recommends that subsequent phases of the ASP be designed in a more flexible way to consider the inclusion of additional countries which have ratified the Convention, secured co-financing and which can demonstrate progress in addressing the problem of obsolete pesticides.

5. Noting the massive scale of the obsolete pesticides problem in the Eastern Europe, Caucuses and Central Asian region (EECCA), the meeting encourages IHPA and FAO to expedite the development of a proposal for submission to GEF and calls upon donors to support co-financing of the project.

6. The meeting recommends to continue working at regional level, e.g. in Latin America and the Caribbean, Asia and the Middle East to gain a better understanding of the extent of the problem of obsolete pesticides and to assist countries in addressing the issue.

7. Noting that GEF funds require co-financing in order to be mobilized, the meeting requests that FAO assist in the mobilization of the required co-financing.

8. The success of the FAO Programme on the Prevention and Disposal of Obsolete Pesticides has generated significant and increasing demand from FAO Member States for action and assistance on obsolete pesticides. The meeting notes that funds to support activities in countries outside the scope of the ASP will be entirely depleted by the end of 2004. The meeting calls upon FAO and donor organisations to support the continued

operation of the Programme on the Prevention and Disposal of Obsolete Pesticides as a global programme.

9. The meeting notes that the current upsurge of locust populations in Africa is leading to extensive applications of pesticides in many countries. Since a large proportion of existing obsolete pesticide stockpiles came about as a direct result of previous campaigns for the control of locusts, the meeting calls upon FAO to ensure that lessons are learned from past experience and that all measures are taken to prevent the creation of new stockpiles of obsolete pesticides and associated pesticide contaminated waste. The prevention efforts should be advised by the FAO Programme on the Prevention and Disposal of Obsolete Pesticides which can provide the necessary expertise. The resources needed for design and implementation of the prevention efforts should be allocated adequate resources from the funds available for locust control campaigns.

10. The IOMC working group on Obsolete Stocks should fulfil its stated role more effectively in order to promote and coordinate activities related to pesticides in general and obsolete pesticides specifically between UN agencies and other international organisations. The meeting calls upon the IOMC working group to meet more frequently.

11. The meeting welcomed the continued support of the Government of Japan for obsolete pesticides activities including the ASP that are implemented through FAO. It was further noted the FAO's active coordinating role is required so that the effectiveness of on-going and possible new projects would be fully ensured by securing and mobilizing resources from other donors.

12. Noting the value of the technical guidance on various aspects of prevention and disposal of obsolete pesticides that FAO has produced, the meeting calls upon the Programme on the Prevention and Disposal of Obsolete Pesticides to update existing guidance documents and to produce additional guidance on relevant topics, and in particular:

    - Pesticide container management
    - Monitoring of obsolete pesticide projects
    - Environmental Assessment of pesticide storage facilities
    - Service provider database
    - Further development of the inventory database in collaboration with GTZ

13. The meeting recognized that preventive measures for avoiding the obsolete pesticide should be based on the revised version of the international Code of Conduct on the Distribution and use of pesticides (Code) as the Code provides guidance on all pesticide matters covering the full life -cycle of pesticides, focusing on risk reduction and recommending the use of IPM.

FAO warns of pesticide waste time bomb in poor countries

FAO makes news releases from time to time to make people, nations, countries aware of the looming danger of hazardous waste of obsolete pesticides and pesticides belonging to the family of Persistent Organic pollutants. Below is the news release at the conclusion of the FAO 7th Consultation, 8-9 September 2004

Agency running out of funds for cleanup operations - donor appeal 9 September 2004, Rome -- High quantities of toxic chemical waste from unused or obsolete pesticides are posing a continuing and worsening threat to people and the environment in Eastern Europe, Africa, Asia, the Middle East and Latin America, FAO warned today.

For example, it is estimated that the Ukraine has around 19 500 tonnes of ageing chemicals, Macedonia 10 000 tonnes, Poland 15 000 tonnes and Moldova 6 600 tonnes.

Stocks in Asia are currently recorded at 6 000 tonnes, a figure which does not include China, where the problem of pesticide waste is believed to be widespread. In the Middle East and Latin America together around 10 000 tonnes have been declared and countries are asking FAO increasingly for help.

"Affected countries are calling - ever more frequently and with greater urgency - for assistance to remove their obsolete pesticide stocks and prevent the further accumulation of toxic waste," said Mark Davis, head of FAO's programme on the Prevention and Disposal of Obsolete Pesticides on the occasion of an expert consultation held in Rome. "Unfortunately, without additional funds from donor countries, FAO will be unable to respond to its member nations that need assistance because funding for an FAO programme on the prevention and disposal of obsolete pesticides is ending by the end of this year," he added.

Hazardous waste obsolete pesticides are left over from pest control campaigns. Stockpiles have accumulated because a number of products have been banned for health or environmental reasons, but were never removed and disposed of. Stocks remain where they are stored and often deteriorate to contaminate the environment and put people at risk. The worst affected are frequently poor rural communities that may not even be aware of the toxic nature of the chemicals they are daily exposed to.

The waste sites contain some of the most dangerous insecticides like the Persistent Organic Pollutants (POPs) aldrin, chlordane, DDT, dieldrin, endrin, heptachlor and organophosphates. The condition of obsolete pesticide stocks varies from well-stored products that can still be used in the field, to products that have leaked from corroded steel drums and other containers into the soil.

Ethiopia: Repackaging obsolete pesticides in preparation for shipment

Yemen: Pesticide containers accumulate with no safe disposal method

Algeria: Obsolete pesticides have accumulated some of which are more than 40 years old.

Pesticide poisoning is common close to unmanaged sites in Africa. The amount of obsolete stocks in 53 African countries is estimated at 50 000 tonnes, FAO said. FAO is participating in the Africa Stockpiles Programme (ASP), a multi-partner initiative, which aims to clear obsolete pesticide stocks from African countries and put in place measures to prevent the problem from recurring. Nevertheless, several African countries that cannot benefit from the ASP in its first phase of activities are calling on FAO for immediate assistance.

"Countries such as Algeria, Cameroon, Somalia, Eritrea and Senegal are deeply concerned about the continuing severe health and environmental impacts of their obsolete pesticide stocks," Davis said.

With financial support from Japan, FAO has recently identified around 600 tonnes of obsolete pesticides in Mozambique, despite a previous clean up. Japan has provided $850 000 for this project and has committed a further $1 million for clean up and prevention.

The Netherlands has contributed about $8.9 million to FAO's prevention and disposal of obsolete pesticides and has pledged an additional $2 million to help with the Africa Stockpiles Programme.

"Clean-up and prevention measures urgently need to be combined. The awareness of a targeted and limited use of pesticides, respecting human health and the environment, needs to be urgently raised in many countries. More countries are showing a desire to address the problem of pesticide management and use," Davis said.

The clean up of one tonne of obsolete pesticide waste costs around $3 500. Most developing countries do not have the facilities for safe hazardous waste disposal.

The present upsurge of locusts in Africa requires extensive control measures. Affected countries and FAO are making all efforts to ensure that this campaign does not result in further obsolete stocks and that effects on the environment are being reduced.

FAO has been the lead agency in dealing with obsolete pesticides in developing countries since 1994. FAO activities include initiating and coordinating national inventories, coordinating and monitoring disposal projects, publishing guidelines on prevention and management and public outreach. FAO also promotes and supports integrated pest management programmes and strong pesticide control measures.

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ANNEX II: Agenda and timetable

Rome, 8 - 9 September 2004

WEDNESDAY, 8 SEPTEMBER 2004	
09.00	Registration of participants
09.30	Opening of the Consultation
09.45	Election of Chairman and Rapporteur
	Adoption of Agenda
10.30	Introduction to the meeting
10.45	Update on activities: FAO

	FAO managed or supported country projects: Ethiopia, Yemen, Mozambique
	• Proposed projects: Eritrea, Syria, Paraguay, Bolivia
	• Emergency interventions
	• Regional activities: Latin America, Asia, Near-East, Africa, Eastern Europe, Caucasus & Central Asia (EECCA)
	• Africa Stockpiles Programme:
	  • Report on progress with ASP development
	  • Country projects developed
	  • FAO Technical Support Unit
	  • Other FAO activities
	• Guidelines produced and under production
	• Training
	• Data and information collection, management and dissemination
	• Service providers, Survey and database (FAO Consultant Report)

14.00	Update on activities by other agencies in similar areas in various orders of convenience not necessarily as listed below
	• FAO Consultant report on obsolete pesticides • BELGIUM • GTZ • JAPAN • UNEP • UNEP/SBC (Secretariat of the Basel Convention • World Bank (GEF) • WHO • KEMI • IHPA • PAN-AFRICA

Agenda and timetable (continued)

16. 30	Update of regulatory aspects regarding the transport of hazardous waste (IMDG; Basel Convention; Bamako Convention; etc.)
	THURSDAY, 9 SEPTEMBER 2004
09.00	Inter-organizational collaboration to ensure synergy and avoid duplication of effort: An overview of current activities and a discussion of the potential for strengthening collaboration.
11.15	Technical guidance: Short presentations of new topics (Database of service providers; Risk Assessment Tool; Container Management) followed by discussion on needs for new guidelines and updates and other ways of providing technical assistance.
14.00	Programme of future activities
15.45	Conclusions and workplan derived from morning session
16.30	Conclusion and statements by participants Adoption of recommendations
17.00	Closing remarks by Mr. N. A. van der Graaff Chief, Plant Protection Service (AGPP)