

GUIDELINES

**INITIAL INTRODUCTION
AND SUBSEQUENT
DEVELOPMENT OF
A SIMPLE NATIONAL
PESTICIDE REGISTRATION
AND CONTROL SCHEME**



**FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS**

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1. INTRODUCTION

Correctly used, pesticides are of considerable value to mankind as an aid in the production of wholesome food and fibre. But wrongly used or where there are inadequate controls on what can be used they can cause considerable harm to man and his environment. These Guidelines are intended to provide assistance to those countries that do not yet have a pesticides registration and control scheme in operation. It discusses the need for controls, the scope of a simple scheme, and makes the point that before controls can be put into place there must be appropriate legislative powers. While for countries with a considerable pesticides market and the necessary infrastructures a comprehensive scheme is warranted, such a scheme may be beyond the financial and administrative resources of many smaller nations. These Guidelines provide suggestions as to how a simple pesticides registration and control scheme can be put into operation.

2. REGISTRATION

2.1. Definition

The Pesticides Code of Conduct (1) defines registration as meaning: "the process whereby the responsible national government authority approves the sale and use of a pesticide following the evaluation of comprehensive scientific data demonstrating that the product is effective for the purposes intended and not unduly hazardous to human or animal health or the environment".

The registration process is usually carried out through a review of data provided by the registrant, rather than the national authority producing the data. Often decisions are made by a Committee (e.g. Board, Pesticides Advisory Committee), which either may be responsible for the final decision or which makes a recommendation to the appropriate government officials.

2.2 Objectives

The objective of regulating pesticides is to provide society with adequate protection from adverse effects while not denying it access to benefits from their use.

Registration enables authorities to exercise control over quality, use levels, claims, labelling, packaging and advertising of pesticides, thus ensuring that the interests of end-users are well protected. The registration legislation must provide a system under which the public's interest as well as the manufacturers' rights are protected. If every pesticide has to be registered the public will know that the product on sale has satisfied the requirements of the law, before being allowed to be used.

2.3 Responsibilities

Various sectors of the community have varying responsibilities under any pesticide registration and control scheme. Most of these are set out in the "International Code of Conduct on the Distribution and Use of Pesticides" (1).

2.3.1. Manufacturers

The prime responsibility rests with the manufacturer who must first be satisfied that the product fulfills the many requirements of the public and the government authorities charged to watch the public interest. The GIFAP publication: "A Guide to Implementation for the Agrochemicals Industry" (2), clearly sets out these responsibilities as far as the pesticides industry is concerned. Manufacturers should, as far as possible, sell certain restricted pesticides directly to users and not distribute such pesticides through vendors.

2.3.2. Governments

Government policy should be aimed at protecting the public and the environment from excessive exposure to harmful substances while also preserving and increasing the variety and usefulness of products that contribute to food supply, protection of health and to the standard of living. Many of the responsibilities of governments, in so far as control of pesticides is concerned, are covered in the Code (1).

2.3.3. Vendors

Those engaged in the sale of pesticides to the end-user have a big responsibility to make sure that they supply only pesticides which are permitted for use, those which are effective for control of the pest, and yet will not be harmful to man and the environment.

2.3.4. Users

The final link in the distribution chain is the user who is the person who ultimately applies the pesticide to the target. They must accept that they have a responsibility towards themselves, their families, their neighbours, the community and the environment and towards those who may consume the food which was grown with the aid of pesticides. Label directions and advice on how to use that pesticide safely must be heeded. Unless this is done the users may find that they no longer have access to a particular pesticide as an aid in the production of food, because of public concern.

3. DESIGNING A PESTICIDE REGISTRATION SCHEME

3.1 Need for Control of Pesticides

A pesticide must be effective in the control of the target organism when it is applied in a convenient manner at a predetermined rate. Few pesticides possess a high degree of specificity, with most of them being toxic to non-target organisms as well as to the target organisms. They, therefore, carry a potential health hazard to those who handle them as well as to those who consume the treated crop, unless they are used properly. The public is increasingly demanding a greater degree of control over availability and use of pesticides.

Many countries, especially those with highly developed technologies, have set up regulatory procedures to control the production and use of pesticides. The elaborate regulatory procedures of developed countries are also usually strengthened by a comprehensive enforcement system. Such a system, and the regulatory procedures it is designed to enforce, makes demands on available resources which developing countries will often find difficult, if not impossible to meet.

However, developing countries do not need to initially introduce an elaborate regulatory scheme in order to control pesticides effectively. Developing countries should design regulatory procedures suited to their own specific needs, and should not attempt to adopt all the elements of regulatory schemes used in developed countries. The standards set for acceptance of a pesticide in one country, such as an industrial food-exporting country with a temperate climate, an abundance of available fertile land and advanced agricultural technology, would not necessarily be the same as those applied in another country with different agricultural practices, different climate or economy.

Before any legislation for pesticides' control is developed for the first time in a country, a thorough assessment of the country's needs should be undertaken by an expert in registration requirements.

When a country has decided that some measure of pesticides' control is desirable and feasible, and once a commitment to that is reached, it will need to decide on the extent of the resources and effort to be put into that control.

3.2 Pesticides Code (1)

The FAO Conference being aware of the need to control the import, availability, sale or use of pesticides in many developing countries, has adopted the Code (Resolution 10/85), which is voluntary in nature, to serve as a point of reference, particularly until such time when countries have established adequate regulatory infrastructures for pesticides. Although the Code is voluntary, countries are encouraged to use the Code whenever possible as a legally binding instrument in the control of pesticides.

Article 6 of the FAO International Code of Conduct on the Distribution and Use of Pesticides deals with regulatory and technical requirements mentioned in paragraphs 6.1.1 and 6.1.2 of that Article dealing with Government responsibilities:

6.1 Governments should:

6.1.1. take action to introduce the necessary legislation for the regulation, including registration, of pesticides and make provision for its effective enforcement, including the establishment of appropriate educational, advisory, extension and health-care services; the FAO Guidelines for the registration and control of pesticides should be followed as far as possible, taking full account of local needs, social and economic conditions, levels of literacy, climatic conditions and availability of pesticide application equipment;

6.1.2. strive to establish pesticide registration schemes and infrastructures under which products can be registered prior to domestic use and, accordingly, ensure that each pesticide product is registered under the laws or regulations of the country of use before it can be made available there."

In designing a pesticide registration scheme an important initial step is to decide what chemicals are to be controlled, which required the term "pesticide" to be clearly defined. A useful definition of a pesticide is that given in the FAO Code of Conduct, namely:

"Pesticide means any substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of plants or animals causing harm during or otherwise interfering with the production, processing, storage, transport, or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs, or which may be administered to animals for the control of insects, arachnids or other pests in or on their bodies. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant, or agent for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport."

Depending on the resources available, a country may choose to control all chemicals as stated in the definition. On the other hand, chemicals used as plant growth regulators, defoliants, desiccants, or agents for thinning fruit or preventing the premature fall of fruit, may not be controlled during the initial stages of a scheme. Nevertheless, it is essential that pesticides used in agriculture, public health, veterinary, households and in timber treatment, be controlled under the scheme.

3.3 Types of Control Scheme

The next step is to decide on the form of regulatory procedure. There are several options including:

3.3.1. Preventive Scheme

In principle it would be forbidden to produce, import, sell, use or otherwise dispose of pesticides unless explicitly allowed. The resource needed to enforce such a scheme is usually considerable, but if adequately enforced the scheme is practically foolproof.

3.3.2. Retrospective scheme

Companies would be free to produce, sell, use or otherwise dispose of pesticides within the framework of a basic set of rules and be called into account if they failed to comply with these rules. However, while such a system may be relatively simple to operate, the real disadvantage is that any regulatory action will only take place after the incident has occurred.

3.3.3. Government Scheme

This type of scheme allows only Government organizations to produce, sell or import pesticides. The drawback to this scheme is that it involves considerable bureaucracy and limits individual incentive.

3.3.4. Regional Scheme

Under this type of scheme, two or more countries with similar agricultural and political backgrounds would have a common scheme and be able to share resources which otherwise may be limited.

The final decision on the type of regulatory scheme to be followed will have to be based on an assessment of the agricultural and economic structure of the country, taking into account the legislative and political factors. It is also important that a careful assessment be made of the enforcement potential, as the real value of the regulatory procedure is the ability to be able to enforce the requirements. For the purpose of this Guideline it will be assumed that the preventive scheme (3.3.1) has been chosen.

3.4 Legislative Requirement

It must be emphasized that it is preferable not to define terms such as "Act", "Regulation", "Rule", etc., as their meaning may differ from one country to another. Such a diversity comes from different legal traditions and different constitutional systems.

It must be recognized that the science of pesticides is rather technical, and constantly under active development. Consequently, changes in the extent and manner of pesticides' control will occur rather frequently. Legislation should acknowledge such a technical nature and respond promptly by giving, when appropriate, binding effect to new technical requirements. The more a requirement is technical, the lower is the hierarchical legal level at which it should be established. In principle, the executive power has a technical competence and flexibility of action that no legislative power can be expected to possess. Therefore, the basic text which is adopted by the legislative power gives the scope and structure for the legislation, contains general principles, includes a section dealing with penal sanctions and normally has a provision delegating to the executive power the adoption of principles of more technical content aimed to implement the provisions contained in it. The executive power may then call a body to enforce the text and make effective and efficient control of pesticides in the country. Such a body may also be delegated the power to transform technical requirements into legally binding requirements.

3.5 Responsible Government Authority

It is very important that careful consideration be given to determining which authority should be responsible for designing, operating and enforcing any regulatory scheme.

Considering the extensive use of pesticides in agriculture, the Ministry of Agriculture has most often been selected as the appropriate authority. However, since aspects of the protection of human health, the environment and the economy are also involved, full discussions with concerned Government Departments must be undertaken.

4. PLANNING THE ESTABLISHMENT OF A REGULATORY AUTHORITY

4.1 Types of Organization

The regulatory authority can be one of several kinds.

4.1.1. Government

The scheme can be run within a Government Ministry, with Ministerial responsibility for the regulatory decisions.

4.1.2. Statutory Authority

In this case the operation would usually be carried out by a Board set up by an Act of Parliament or by a Presidential Decree. There may, or may not, be direct Ministerial responsibility depending on how the body is set up. In most cases, the statutory authority would report to the appropriate Minister.

4.2. Need for Coordination

The need for coordination between the various Government Departments cannot be over-emphasized, so that all aspects relating to pesticides can be controlled centrally by one comprehensive process. As pesticides are widely used in modern agriculture, they already form an important part of the work of many Government Departments. In many countries, the agricultural departments may be concerned with evaluating the need for pesticides in the growing and establishment of agricultural crops. The Health Department, although often primarily involved with the public health aspects of pesticides, should assess the occupational health aspects of the use of the various types of formulations. It must also work closely with the medical profession on methods of treating poisoning cases. The department of the environment will be concerned about environmental effects of pesticides and the trade department will be involved with any possible adverse effects on trade that wrong use of pesticides may have. There must also

be close cooperation with the Department of Customs or other agencies which are responsible for import and export controls in the country for effectively implementing the legislation and to benefit from the Prior Informed Consent (PIC) scheme (Article 9 of the Code).

5. **RESOURCES**

In planning the introduction of a registration and control scheme for pesticides it is necessary to make some key decisions on the resources required and in particular:

5.1. **The Pesticides Registration Director**

This is a key position and the success of the scheme very largely depends on the appointment of a suitable person. The Director, or Registrar, as the person may be called, should be a scientist, preferably with some knowledge and experience in agriculture. He must be provided with an adequate number of staff, funds and facilities to implement the scheme, and should be responsible to the Secretary General of the Ministry. It is essential that good working relationships be established with other Government Departments and that he has access to international bodies such as FAO, WHO and several countries with a registration scheme. He will need the use of a library and to have access to technical literature. He will also need to be able to publish lists of registered pesticides and give advice on the safe use of pesticides. The Director must, as far as possible, be appointed as the Designated National Authority (DNA) under the scheme for implementation of PIC for the import of banned/severely restricted pesticides, and be responsible for exchange of information on hazardous pesticides (Article 9 of the Code).

5.2. **The Advisory Committee**

An Advisory Committee (Board, Pesticides Committee) will need to be convened when the Pesticides Control Law (see 6.) has been passed. However, until the law is passed, it would be useful to establish a Working Group, the composition of which could be similar to, if not identical with, that of the proposed Committee. Its composition and mode of operation must be left to the discretion of the individual countries, but in general membership should be comprised of technically qualified senior officers from relevant Departments, including Health, Forestry, Environment, etc. The appointment of non-government representatives must be confined only to certain sub-committees established to carry out specific tasks. Precaution must be taken to ensure that such sub-committees are not responsible for deciding on matters such as registration, as this may lead to bias and may also result in lack of confidentiality of information supplied for registration. There must be adequate resources to be able to service the Committee which, in turn, may decide to appoint technical committees. The Committee should establish policy and general direction in the regulation of pesticides, advising the Government accordingly.

5.3. Inspectors

To enable the law to be enforced, inspectors will need to be appointed and trained. These persons would initially visit retailers and inform them of the proposals put forward prior to the passing of the law and of the proposed legal requirements. Following the enactment of the law and after a period of grace legal action may need to be taken against breaches of the law. This may be a costly operation and adequate resources will be needed to support such actions.

5.4 Funds

It is essential to have funds to operate an agency for the control of pesticides. It is usually inadequate to depend on Government budget. Therefore, funds must be collected for by the agency's use. There are several ways in which funds may be generated, namely:

5.4.1. Registration and Licensing Fees

Every pesticide, for which an application is received for registration, must include a fee for the processing of the application. In addition, a fee may be collected for each product that is registered. The registration of each pesticide should also be renewed once every three to ten years and fees collected for the renewal of each registration. Annual licensing fees may also be required to be paid by the person who registers the pesticide as well as by the distributors, retailers, etc.

5.4.2. Tax on imports

In addition to, or in lieu of, registration fees, every import/consignment of pesticides may be subjected to payment of a tax amounting to about one percent of its value. This can be controlled by the country's Department of Customs and Excise . In countries which do not have adequate foreign exchange for the purchase of foreign articles and equipment for the operation of the control scheme, the tax may partly, or in its entirety, be collected in foreign currency.

5.4.3. Sales Tax

In addition to registration fees a sales tax of about one percent may have to be paid on the value of sales in the country.

It is emphasized that all funds collected should be fully used by the pesticide control organization; otherwise no benefits will be derived from the control of pesticides .

6. THE PESTICIDES CONTROL LAW (LEGISLATION)

For a preventive type of registration and control scheme (3.3.1.), as covered in these Guidelines, it will be necessary to have legal powers for effective control of pesticides. These should apply to the import, sale, labelling, storage and disposal of pesticides.

The FAO Guidelines for Legislation on the Control of Pesticides (4) set out in great detail the areas to be ideally covered by the legislation. Emphasis should equally be placed on the importance of taking into consideration the current and future ability of the country to carry out the scheme, the legal framework and the degree of support which the government of the country can provide. It is very important that countries draw up procedures to meet their own needs. It may be that there is some existing law under which pesticides can be regulated, such as, for example, a law covering environmental aspects and under which regulations to control pesticides may be developed. While it may generally be considered desirable to have a separate Pesticides Act (Decree), the passage of a special law may take considerable time whereas, under an existing law, the legal backing for a registration and control scheme could come into force much more speedily.

As a condition sine qua non, the law should state that no person or organization may sell or offer for sale within the country any pesticide unless:

- 1) it has been registered and assigned a registration number by the appropriate authority, or,
- 2) it is covered by a trial or provisional clearance from the authority for use only under the conditions stipulated in that clearance.

7. IMMEDIATE CONTROL OF PESTICIDES

7.1 Initial Action

The national regulatory authority identified by the legislative statute to exercise control over pesticides must be granted all necessary powers within the context of that legislation, to enable it to carry out its activities. This may include, inter alia, powers to issue subordinate enactments such as notices, rules and guidelines relating to pesticides. It is a prerequisite that all pesticides should be controlled by the national authority. However, it may be advisable to exclude nutrients, soil conditioners, human drugs and adjuvants.

7.2 Working Group

The establishment of an effective pesticide registration scheme may take several years. It may take a long time for the legislation to be passed if a new legal instrument is required. Meanwhile, a Working Group can be set up (see 5.2) which could recommend the first steps to be followed to ensure adequate control. Countries which do not have any control over the import, manufacture or sale of pesticides may, as a first step, wish to control the availability of highly hazardous pesticides as well as those that are ineffective. If a Designated National Authority has not already been appointed, it is essential that this be done immediately so that the country can participate and benefit from the PIC scheme and from exchange of information on hazardous pesticides. They may wish to recommend that the following actions be taken:

7.2.1. Market Survey

Identify the kinds of pesticides available and their major uses through market surveys, discussions with industry representatives and extension workers;

7.2.2. **External Contacts**

Contact Registrars of pesticides in countries with similar climatic and socio-economic conditions for information on availability/restriction/prohibition of pesticides in their respective countries, particularly those in Class Ia and Ib of the WHO Hazard Classification (5). Further information and relevant publications on pesticides may be obtained from FAO, WHO or UNEP (refer to Appendix I for addresses);

7.2.3. **Interdepartmental Discussions**

Discuss with Directors of Customs, Trade and Industry, Health and Legal Department to establish an immediate and simple means of control at point of entry into the country;

7.2.4. **Develop a Schedule**

Draw up a proposed list of pesticides which will be restricted (indicate to which extent) and/or prohibited

7.2.5. **Discuss Schedule**

Discuss proposed schedule with extension workers and industry representatives;

7.2.6. **Regulate**

Officially publish the proposed schedule to come into force in about 6-12 months' time under appropriate existing laws, stating that pesticides listed in the schedule can only be imported, manufactured, formulated, packed, repacked or stored for sale if they are approved by the Working Group established for this purpose.

It must be stressed that a country wishing to control pesticides must have the ability to control the entry of pesticides into the country. The responsible regulatory authority must coordinate with the Customs Agency in carrying out this task. It is essential for the responsible authority to keep Customs fully and clearly informed on pesticides which are allowed to be imported. The information should include specifically trade name/importer or supplier, and the list regularly updated.

8. **SUBSEQUENT DEVELOPMENT OF A SIMPLE NATIONAL CONTROL SCHEME FOR PESTICIDES**

When the Pesticides Control Law comes into force the country will then decide whether or not to develop a comprehensive registration and control scheme along the lines set forth in the FAO Guidelines for the Registration and Control of Pesticides (6)

and Addendum (7) or, eventually, due to market size, infrastructural and economic reasons, to develop a simple scheme to suit its own needs. This Guideline deals with the second option - a simpler scheme.

8.1. Formally Appoint Committee

The Pesticides Committee, if there is to be one, will be formally appointed under the law. Membership should consist of government officials' representatives who are involved in pesticides, as a minimum, and others such as from the Departments of Agriculture, Health, Environment and Customs (see para 5.2). A secretariat, under the supervision of the Registrar, will also be appointed to handle day-to-day operations.

8.2. Functions of the Pesticides Committee

The Committee's main function, which will have been spelt out in the Law, will be to ensure that the Law is applied and should, therefore, be granted the necessary legal powers carry out this function. The end result of the Committee's deliberations should consist in a list of pesticides which are registered. Pesticide products which are not on that list will not be accepted for importation. While considering whether or not the pesticide should be registered and be accepted for importation, the following points will need to be taken into account by the Committee:

8.2.1. Need

Is the pesticide required for the control of a pest in the country?

8.2.2. Registration in other Countries

Has the pesticide in its formulation been registered to be marketed in one or more countries with similar climatic and socio-economic conditions?

8.2.3. Hazard

Is the pesticide thought to create no undue hazard to users and to the environment under normal handling practices in the country?

8.2.4. Certificate of Analysis

Will the consignment be accompanied by a certificate of analysis from the manufacturer to guarantee the active ingredient content of the pesticide? If the amount of pesticide to be imported is important, it may be justified to insist that the product should follow adopted specifications of FAO if intended for use in agriculture and of WHO for use in public health respectively. If specifications from these Agencies are not available, then the manufacturer's specification, or that of any other established agency,

can be provided. The certificate of analysis must state the active ingredient content of the consignment, which must not differ from the declared value, taking into consideration the permissible tolerance.

8.2.5. **Labelling**

Will the pesticide have a minimum amount of label as may be required under maritime regulations for the transport of toxic chemicals?

The Customs Department should be informed that a pesticide included in the list must not be imported unless it is accompanied by a permit and that all conditions stipulated by the Committee are met by the importer.

From time to time, samples of the consignment imported may be drawn for analysis to check the quality of the product. If laboratory facilities are not available in the country, then assistance should be sought from international agencies such as FAO.

8.3. **Generic Registration**

Generic clearance of pesticides is a system of providing blanket approval for the import, manufacture and use of pesticides containing certain active ingredient(s) once the initial registration has been approved. The advantages of generic approval seem to be recognized as providing increased competition and lower prices. On the other hand, problems introduced, among others, include lower quality pesticides.

It is essential to draw samples and carry out the identification and toxicological assessment of the impurities on the particular generic product to be marketed. Therefore, generic clearance of pesticides must be discouraged, and instead, a well-run "me-too" system which allows the registration after an exclusive use period is a way of dealing with the question of second registrations. However, data on physical and chemical properties and impurities, and acute toxicity studies on the particular formulation must be provided. If necessary, toxicological studies on impurities must be supplied, thus ensuring supplies of quality pesticides to end users, without encountering the pitfalls of generic approvals.

8.4. **Elements of a simple Registration and Control scheme**

A country that is operating a simple scheme will obviously not have the resource to undertake the evaluations of the registration data such as that outlined in the FAO Guidelines (6 and 7). The following is given as an indication of how a country may wish to operate a pesticides registration scheme without carrying out a comprehensive evaluation of the data.

8.4.1. **Chemical and Physical Properties**

These data should be supplied with every application for registration, as they contain certain essential information, such as formulation type, concentration of active

ingredient, nature of solvents and other information. For a list of the information which should be supplied, see Addenda to Guidelines (7).

8.4.2. Efficacy Data

Data should be supplied by the person wishing to register the product to show that the product will provide effective control against the pest on which it will be used. Local trials should preferably be carried out but, if this is not possible, the person responsible for the registration of the pesticide should supply results from trials conducted against the same pests in the same or similar climatic conditions, preferably using internationally accepted test protocols. FAO, in conjunction with EPPO, is developing a number of test protocols for pests of tropical crops. It is anticipated that these will be available in the near future. When considering efficacy data the Pesticides Committee may also look at whether there is a need to use a pesticide to control the problem, e.g., is hand weeding more acceptable in a particular situation?

8.4.3. Toxicological Data

Few countries operating a simple registration and control scheme will have the expertise available to undertake a comprehensive evaluation of the toxicological data that is normally available as part of the registration package. In these cases it is suggested that the person who registers the product be required to provide documented evidence that the pesticide is registered in a country which has a sophisticated scheme. Information on WHO classification of the formulation should be supplied. It is suggested that, if the formulation is in either Class Ia or Ib, then registration should only be allowed if its use is essential to control the pest. Guidance should also be sought from the information available from other countries and, in particular, through the joint FAO/UNEP Information Exchange and Prior Informed Consent procedures (8). Assistance will also be available from WHO on matters concerning the toxicology of pesticides.

8.4.4. Residue Data

Generally, there will no laboratory facilities available to undertake residue analyses in the country, but it will be necessary to provide the necessary information to support any proposed pre-harvest interval. The official responsible for registration should be required to supply the results of residue trials carried out either in the country where registration is sought or in countries with a similar climate and similar crops so that a pre-harvest interval can be set. In addition, Codex MRL values and JMPR toxicological or residue information have to be requested.

8.4.5 Environmental Data

It will be necessary to provide information on the environmental effects of the pesticide for which registration is sought, giving results which are relevant to the situation of intended use. In many cases, these will be supplied from overseas and where

specific problems in a country, the Committee may need to ask the official responsible for the registration to have a special study carried out.

8.5 Labelling Requirements

Requirements for labelling are detailed in two FAO Guidelines (9 and 10). While it is highly desirable that every effort should be made to have labels in the language of the country affixed to pesticide containers, it must be recognized that it may not always be possible to achieve this for a number of reasons. Also, as many users may be illiterate it will not always be a practical solution to get a message across on how to use the product safely to absolutely insist on local language labelling. However, experience and surveys have shown that pictograms developed by GIFAP/FAO (10) to be used on labels are generally understood as well by illiterate users as by those who can read.

If it is not possible to supply pesticides labelled in the local language for whatever reason, then suppliers could be requested to use the FAO pictograms as an aid to encourage their safe use. Literature should also be made available in the local language, giving explanations on how to use the pesticide. Comic strips have proved useful for illiterate users and training sessions at village level are most valuable. The Pesticides Committee, as part of its overall responsibilities, should maintain an active coordinating role on all aspects of pesticides in order to ensure safe use.

8.6 Inspectors

It will be necessary to train inspectors to carry out inspections of sales outlets and to take samples for analysis if such facilities, or access to them, exist. An FAO Guideline on this subject is available (11). The inspectors should be given the necessary training by the staff of the Registrar and have the necessary legal powers allowing them to take action.

8.7 Extension Service

Officers of the Extension Service should, at all times, be fully aware of the pesticides which are registered and should be provided with information on safe use by both the authorities and the industry, information which, in turn, they can pass on to the end-users. Training of farmers on safe handling and correct use can also be carried out by the Extension Service in cooperation with members of the pesticide industry. The training course, whenever possible, must include the subject of Integrated Pest Management, encouraging the judicious application of pesticides and good agricultural practices.

9. **PRIOR INFORMED CONSENT**

The Prior Informed Consent (PIC) clause refers to the principle that international shipment of a chemical that is banned or severely restricted in order to protect human health and/or the environment should not be authorized without previous agreement (where such an agreement exists) or conflicting with the decision of the relevant authority in the importing country.

To ensure the implementation of this principle, a PIC procedure has been established jointly between FAO and UNEP, whose aim is to create an international system, whereby participating importing countries will obtain information concerning chemicals whose use is banned or severely restricted in other countries; decide whether to allow, restrict or prohibit future imports of such chemicals; and notify other countries on a formal basis of their decision concerning such imports. Exporting countries are then expected to inform their export industry of these decisions and take steps, within their authority, to ensure that their export industry does not make shipments conflicting with the decisions of the participating importing countries.

Decisions on PIC must, as far as possible, be made by the Pesticide Committee or a similar group of government officials, including the Designated National Authority (DNA) of a particular country. Further details on the subject are available in "Guidance for Governments" (8).

It must be pointed out that, although the participation by a country in the PIC clause is highly beneficial, it cannot be a substitute for a well-run pesticide control scheme. Therefore, every endeavour should be made to establish such a scheme.

10. **CONCLUSION**

While it is not recommended that short cuts should be taken when considering whether or not to register a pesticide, it is clear that, due to the considerable amount of resources and expertise required to operate a comprehensive scheme such as that recommended by FAO (6), some countries are not in a position to operate such a scheme. In these particular cases, information and actions of other countries and information from international organizations should be relied upon for many of the decisions. The ultimate objective, however, would be for all countries to have the infrastructures, experience and expertise to enable them to make decisions according to their needs and socio-economic conditions. This is the main objective of the present Guideline.

SOURCE OF FURTHER INFORMATION ON PESTICIDES

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UNEP: The Director
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CH-1211 Geneva 10
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