



Food and Agriculture
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United Nations



World Health
Organization

International Code of Conduct on Pesticide Management

Guidance on the monitoring
and observance of implementation
of the Code of Conduct



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**Guidance on the monitoring
and observance of implementation of the
Code of Conduct**

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Foreword

Intention of this document is to facilitate and encourage monitoring and reporting on observance and implementation of the International Code of Conduct on Pesticide Management. It is derived directly from Article 12 of the Code of Conduct, which states provisions for all stakeholders involved in pesticide management, and provides an approach for monitoring fulfilment of the shared responsibilities of parties under the Code. The guidance is therefore designed for use primarily by governments, the pesticide industry and non-governmental organizations but may also be useful to other relevant entities in monitoring and reporting important aspects of pesticide management.

After a review of the main objectives and benefits of monitoring and reporting on the Code (section 2), the document identifies areas to be monitored (section 3), including priorities in pest and pesticide management. It then clarifies the roles of all stakeholders (section 4) in monitoring and reporting, including those of the Food and Agriculture Organization of the United Nation (FAO), the World Health Organization (WHO), and the United Nations Environment Programme (UNEP), and provides practical advice on the information to be collected (section 5). Step-wise procedures for reporting and follow-up are described in section 6. Reporting forms for both regular and *ad hoc* monitoring are provided in two annexes.

Objective of this guidance on fulfilling the reporting requirements of Article 12 of the Code of Conduct is to obtain a regular flow of information on its observance to strengthen implementation of the Code, to provide data for its future revisions and improvement, and, most importantly, to improve the protection of human health and the environment related to pesticide use and management in agriculture and public health.

Guidance was prepared in compliance with the **FAO/WHO International Code of Conduct on Pesticide Management**, which sets out a framework and voluntary standards of conduct for stakeholders in pesticide management, in particular governments and the pesticide industry. Endorsed by FAO, WHO, governments, pesticide producers, non-governmental organizations and other stakeholders, the Code outlines their shared responsibility to promote best practice and risk reduction throughout the pesticide life cycle. The Code of Conduct thereby establishes the commitment and moral obligation of stakeholders to comply with the agreed standards of conduct and to assume their respective responsibilities. These include governments' responsibility to promote pesticide risk reduction and the industry's responsibility to produce products that are adapted to the context of their use and to provide stewardship of those products throughout their life cycle.

This guidance was prepared with the support of the FAO/WHO Joint Meeting on Pesticide Management (JMPM) to provide further guidance on the provisions of the Code of Conduct related to its observance and implementation. It reflects the joint FAO/WHO approach to pesticide management, thus addressing the topic in both agricultural and public health settings.

FAO and WHO welcome readers' feedback

FAO and WHO consider this guidance to be a living document, which could be improved. They would therefore value any feedback from readers and welcome comments. They would also value examples of how the guidance is used.

Please send your suggestions, comments and examples to pesticide-management@fao.org or VVE@who.int, indicating the title of the guidance and the relevant section and page.

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Declarations of interests

FAO and WHO reported that they had received and reviewed declarations of interests from all FAO and WHO expert panel members who participated in the 15th JMPM and had concluded that none could give rise to a potential or reasonably perceived conflict of interest related to the subjects discussed at the meetings.

Acronyms

FAO	Food and Agriculture Organization of the United Nations
HHP	highly hazardous pesticide
IPM	integrated pest management
IVM	integrated vector management
JMPM	FAO and WHO Joint Meeting on Pesticide Management
NGO	non-governmental organization
UNEP	United Nations Environment Programme
WHO	World Health Organization

1. Introduction

1.1 General

Revised International Code of Conduct on Pesticide Management (FAO/WHO, 2014), referred to below as the "Code of Conduct", is an updated, globally accepted standard of conduct for all aspects of the management of pesticides, including the steps in the pesticide life cycle. Revisions to the Code of Conduct adopted in 2014 strengthened its guidance to reduce the adverse effects of pesticides on health and the environment and to support sustainable agricultural practices. In addition, new topics have been included to better address pesticide management and the pesticide life cycle approach, to cover both the agricultural and the public health uses of pesticides, include integrated pest management (IPM) and integrated vector management (IVM), and add new definitions such as for highly hazardous pesticides (HHPs).

Article 12 (see Box 1) of the Code of Conduct states the provisions for all stakeholders involved in pesticide management, i.e. governments, industry, non-governmental organizations (NGOs), FAO, WHO and UNEP, for addressing various aspects of monitoring the observance and implementation of the Code of Conduct. The provisions can be grouped into the following **three main monitoring objectives**:

1. Promotion of the Code of Conduct

- raising awareness about the Code through its publication (art. 12.1) and effective communication to stakeholders (art. 12.2); and
- promoting the Code's principles and ethics (art. 12.3)

2. Regulatory and operational implementation of the Code of Conduct

- compliance with and adherence to existing regulatory frameworks, whether national legal rules (art. 12.4) and/or relevant international instruments (art. 12.5); and
- monitoring observance and activities and reporting on progress and implementation of the Code (art 12.7 to art. 12.9), with full support from FAO, WHO and UNEP (art. 12.6)

3. Review and improvement of the Code of Conduct

- revision of the Code, as necessary, according to the outcomes of monitoring and reporting and "technical, economic and social progress" (art. 12.10).

This revised guidance represents an update of the 2006 guidelines and supersedes them. JMPM, an advisory body to FAO and WHO (FAO/WHO, 2023) has acknowledged that the original guidelines did not achieve their purpose, as few monitoring reports were submitted during 2006-2022. The reasons may include: lack of awareness of the Code and associated guidance documents; lack of capacity, resources and authority of the JMPM to support countries in addressing problems in pesticide management; and/or lack of motivation by countries and other stakeholders to report on implementation of the Code too frequently or to act on reports that are produced.

Intention of this updated version is therefore to:

- facilitate and encourage monitoring and reporting by providing more manageable, practical options for fulfilling the provisions of Article 12;
- obtain a more regular flow of information about observance and implementation of the Code of Conduct and hence create more regular communication with stakeholders in pesticide management;
- address aspects of monitoring that were not covered in previous guidelines, such as promotion of the Code and compliance with national and international frameworks for pesticide management;
- outline the benefits of participating in monitoring of the Code, for both those who provide data and those who receive the information;

- clarify how the data collected are used and by whom;
- clarify the roles of FAO, WHO, UNEP and the JMPM; and
- provide a user-friendly approach for governments and other stakeholders identified in Article 12, including NGOs and the pesticide industry, to participate effectively in monitoring observance and implementation of the Code of Conduct.

Box 1. Article 12. Monitoring and observance of the Code (as in the 2014 Code of Conduct)

- 12.1 Code should be published by FAO, WHO and UNEP and should be observed through collaborative action by all entities addressed by this Code.
- 12.2 Code should be brought to the attention of all concerned in the regulation, manufacture, distribution and use of pesticides, so that governments, pesticide industry and other entities addressed by this Code, that are in a position to promote sustainable pest and vector management practices, understand their shared responsibilities in working together to ensure that the objectives of the Code are achieved.
- 12.3 All entities addressed by this Code should promote the principles and ethics expressed by the Code, irrespective of other entities' ability to observe the Code. The pesticide industry should cooperate fully in observance of the Code and promote the principles and ethics expressed by the Code, irrespective of a government's ability to observe the Code.
- 12.4 Independently of any measures taken with respect to observance of this Code, all relevant legal rules, whether legislative, administrative, judicial or customary, dealing with liability, consumer protection, conservation, pollution control and other related subjects, should be strictly applied.
- 12.5 Governments and other entities concerned:
- 12.5.1 are encouraged to observe the provisions laid down in any relevant international instruments concerning chemical management, environmental and health protection, sustainable development and international trade, relevant to the Code;
 - 12.5.2 are encouraged, if they have not yet joined, ratified or acceded to such instruments, to evaluate the appropriateness of so doing as soon as possible.
- 12.6 FAO, WHO, UNEP and other relevant international organizations should give full support to observance of the Code.
- 12.7 Governments, in collaboration with FAO WHO and UNEP, should monitor observance of the Code and report on progress made to the directors-General of FAO and WHO and the Executive Director of UNEP.
- 12.8 Pesticide industry is invited to provide reports to directors-General of FAO and WHO and the Executive Director of UNEP on its product stewardship activities related to observance of the Code.
- 12.9 NGOs and other interested entities are invited to monitor activities related to implementation of the Code and report these to the directors-General of FAO and WHO and the Executive Director of UNEP.
- 12.10 Governing bodies of FAO, WHO and UNEP should periodically review the relevance and effectiveness of the Code. The Code should be considered a dynamic text which must be brought up to date as required, taking into account technical, economic and social progress.

This publication identifies the information to be collected and ways to ensure that it will be accessible and used effectively for further implementation of the Code. Over time, it should provide a continual source of information for evaluating progress in observing the Code and for identifying where further work is needed.

1.2 Background

Observance and implementation of the Code of Conduct have been monitored several times since the first edition of the Code in 1985. After adoption of the original Code, governments were invited to report on their efforts to implement it under FAO Conference Resolution 10/85 adopting the Code. In this context, FAO circulated three questionnaires, the first in 1986, a second in 1993 and a third in 2008. In 2017–2018, FAO and WHO also conducted a global survey of the current situation of pest management in agriculture and public health.

First two questionnaires were designed as “mirror images” of the Code of Conduct; they yielded important information on its implementation, which was summarized by FAO (FAO, 1996). That publication covering the responses to the second questionnaire also includes an analysis of the responses to the first questionnaire for collecting baseline information, providing trends by region, how technical cooperation programmes and national regulatory systems have helped to implement the original Code of Conduct, and drawing general conclusions. The analysis was based, however, on responses from governments and lacked direct input from other important stakeholders, such as the pesticide industry and NGOs.

Third survey (FAO, 2010) in 2008 was conducted almost 25 years after initial publication of the Code of Conduct and was based on regular reporting forms completed according to the original 2006 guidelines on monitoring. Although all FAO members were contacted, only 39 countries responded (21 percent response rate). The priorities identified for strengthening pesticide management were: capacity-building of staff involved in pesticide registration, inspection and analysis; awareness-raising of stakeholders; establishment of post-registration monitoring systems; establishment of laboratory facilities for pesticide quality control and residue analysis; management of obsolete pesticides and pesticide containers; and development and promotion of IPM. The areas of progress cited included: poison control facilities, data collection, labelling and storage; and the areas of little progress included: IPM, resistance management, pesticide quality, access to laboratories, less hazardous products, management of empty containers and post-registration monitoring.

2017–2018 WHO/FAO survey (FAO/WHO, 2019) was also based on answers to questions on the regular reporting form of the 2006 guidelines but included questions about pesticide management for vector control in public health. The response rate was better than in 2008 (28 percent for agricultural pesticides and 48 percent for public health pesticides) but still below those expected.

Only a few *ad hoc* cases on specific aspects of observance of the Code of Conduct were received by FAO as per the *ad hoc* reporting form in the 2006 guidelines. The process suggested in the original guidelines proved to be cumbersome and unclear to stakeholders, some of whom had different expectations of the outcomes. As the Code of Conduct outlines a voluntary framework for pesticide management, FAO, WHO, UNEP and the JMPM have no power of enforcement and cannot intervene directly with national jurisdictions when cases of non-observance are reported.

In addition, experience indicates that monitoring of observance and implementation can be resource intensive, both for conducting the activity and for responding. Requirements for responding to excessive, complicated questions (requiring coordination and consultation) may discourage monitoring by governments and other stakeholders.

Lessons learnt from past monitoring activities, including the small number of reports, inadequate participation in monitoring surveys and limited resources, led the JMPM to reconsider the original guidelines and to propose a more transparent, more efficient process.

1.3 Objectives, structure and scope

Overarching objective of the Code and of this guidance is to increase protection of human health and the environment as related to pesticide use and management in agriculture and public health.

With respect to Article 12 of the Code of Conduct, this guidance for monitoring and reporting on observance and implementation has **three main objectives**, outlined in section 1.1:

- 1. Promotion of the Code of Conduct**
- 2. Regulatory and operational implementation of the Code of Conduct**
- 3. Assessment and improvement of the Code of Conduct**

Revised guidance addresses:

- the benefits of monitoring and reporting (section 2);
- information to be monitored under the three main monitoring objectives (section 3);
- the roles of all stakeholders in monitoring and reporting, including governments, the industry, NGOs, FAO, WHO, UNEP, JMPM and other interested parties and individuals (section 4);
- collection by countries of monitoring data (section 5);
- the suggested procedures for reporting and follow-up, including process(es) whereby all stakeholders can collect and report information (section 6); and
- reporting forms for:
 - o regular, detailed monitoring (Annex A) and
 - o *ad hoc* monitoring (Annex B)

Guidance was developed to facilitate monitoring and reporting on most aspects of pesticide management. However, other existing technical guidance (FAO/WHO, 2021) on the Code of Conduct focusing on specific pesticide-related areas may also include sections on monitoring. For example, the guidelines on HHPs (FAO/WHO, 2016) includes a section on surveillance to monitor use of HHPs and the effectiveness of risk mitigation measures.

1.4 Targeted audience and shared responsibility

Guidance is primarily for governments, which “should” monitor observance of the Code and report on the national situation with regard to pesticide management, as required in Article 12.7 of the Code of Conduct. In addition, as stated in other sections of Article 12, other stakeholders and interested parties are “invited” to provide their input in order to reflect the broad group of entities addressed in the Code of Conduct and the shared responsibility for pesticide management. Therefore, the pesticide industry (art. 12.8), NGOs and other interested entities (art. 12.9) and individuals can report on pesticide-associated activities and issues as recommended in this guidance.

All stakeholders can monitor and report an issue on their own initiative (“self-assessment”), should an issue arise. In addition, FAO, WHO and UNEP should give “full support to the observance of the Code” (art. 12.6); therefore, monitoring and reporting are also initiated and supported by the three organizations at given intervals.

1.5 Use of collected information

Governments and other stakeholders provide information about their activities and their progress in pesticide management to FAO, WHO and UNEP. How the three organizations use the information collected and what can be expected from national and international monitoring are outlined below.

FAO, WHO and UNEP, with the JMPM, will:

- receive monitoring reports from governments and stakeholders, either regularly *or ad hoc*.

If the reports address country-specific situations, the organizations will:

- pass the reports on to governments and relevant bodies for their information and response within their jurisdiction
 - and, if requested, will assist countries in responding and taking measures to address the issues raised in the reports in order to observe and implement the Code of Conduct; and
- review and analyse the reports to:
 - assess how the Code of Conduct is promoted and made known to relevant stakeholders;
 - assess implementation of the Code of Conduct, including:
 - exploring current practices in pesticide management at national and regional levels;
 - collecting case stories to demonstrate initiatives for more sustainable agricultural practices; and
 - identifying critical, recurrent issues in pesticide management and presenting them to the JMPM for consideration;
 - assess the relevance and effectiveness of the Code articles; and
 - revise the Code of Conduct and relevant associated guidance, within the competence of the three organizations and the JMPM.

It is important to reiterate that the Code of Conduct is a voluntary framework for pesticide management. The JMPM advises FAO, WHO and UNEP on matters related to the Code and on revising the Code. In that context, neither FAO, WHO, UNEP nor JMPM has an enforcement power to intervene in a country. That is why the three organizations and JMPM therefore pass the information to the relevant authorities, provide technical assistance if requested, and, in the long term, identify recurrent and critical issues that require international attention and action.

In the case of international and transboundary issues, FAO, WHO, UNEP and the JMPM also forward reports to the relevant national authorities (if designated) and bring the issues to the attention of relevant international bodies. International guidance for addressing the issues may already exist, e.g. if they are related to the multilateral environmental agreements, such as the Basel, Rotterdam and Stockholm Conventions (Basel, Rotterdam and Stockholm Conventions, 2023), reference can be made to those precedents.

In order to motivate stakeholders to take part in the process and to interest them to conduct regular monitoring, they must be informed about how the information they collect will be used. They must also be kept informed about the outcomes of the process, so those who fill in the questionnaires see a direct benefit of their work.

2. Why monitor

This guidance was developed to facilitate and encourage monitoring and reporting on the observance and implementation of the Code of Conduct by all stakeholders. The importance of monitoring and of participation should be stressed, as it has several objectives.

1. Overarching objective of the Code is to increase the protection of human health and the environment. This guidance on monitoring should facilitate reporting and, in the long-term, **strengthen awareness, visibility, implementation and effectiveness of the Code**, thereby improving national and international pesticide management.
2. Through regular monitoring of implementation of selected provisions of the Code, with inputs from governments and other stakeholders, FAO, WHO and UNEP will be able to **describe the worldwide status of pesticide management**, with identification of trends over time, worldwide and in particular regions, in reducing the adverse effects of pesticides on health and the environment.
3. Monitoring implementation of the Code should include successful national and regional case studies, innovative approaches and positive trends in pesticide management. Monitoring can therefore **support sustainable agricultural practices**.
4. Monitoring may also be helpful for identifying **and raising awareness about critical areas in pesticide management**. It is therefore an important means for assessment for both the international community and those who take part in collection and surveying. Monitoring can also be used for self-assessment by national governments to improve their decision-making on pesticide management and environmental performance.
5. As a feedback loop, monitoring and reporting should help continuous review of **the Code to ensure that it remains relevant, up-to-date and effective**. Adequate international guidance by FAO, WHO and UNEP is critical to ensure sound international development in the area of pesticides by all stakeholders.

3. What to monitor

Article 12 envisions monitoring of the observance and implementation of all aspects of the Code of Conduct. The areas of focus depend on who is monitoring and reporting. Other provisions of the Code, discussed in section 3.2, call for monitoring specific types of information.

This guidance provides a basis for monitoring the observance and implementation of each provision of the Code of Conduct. In line with the three main objectives of monitoring (sections 1.1 and 1.3), it provides ways to:

1. monitor the **communication, visibility and promotion** of the Code of Conduct (as stated in Article 12.1–12.3) by stakeholders at national, regional and international levels;
2. report on **regulatory and operational implementation** of the Code of Conduct:
 - a. regulatory: to review compliance with national and international legal instruments related to the Code (Articles 12.4 and 12.5) and
 - b. operational: to report on activities and projects for observance and implementation of the Code (Articles 12.6–12.9); and
3. report on the **impacts of implementing the Code on new and emerging issues**, which will guide revision and improvement of the Code (Article 12.10).

In particular, monitoring reports will indicate the extent to which health and the environment are being protected, in line with the overall objectives of the Code. The monitoring system should provide clear information on how well governments, the pesticide industry and others identified in the Code are meeting their responsibilities as set out in the Code.

3.1 Monitoring “promotion” of the Code of Conduct

Under this **first** objective, stakeholders are invited to report on their activities to raise awareness and communicate about the Code and also to promote the Code’s principles and ethics. This could include a range of activities, e.g. brochures, contribution to papers highlighting the importance of the Code and the responsibilities of stakeholders, preparation of tools related to pesticide management, presentation of the principles of the Code at key events, training materials to promote better understanding of the Code, and projects that make direct reference to the Code. The impacts of such activities should be reported to determine whether these awareness-raising activities are effective, such as whether references are made to the Code in national or regional legislation and/or policies, the number of articles on pesticide management issues; a reduction in the number of cases of acute pesticide poisoning; and a reduction in the numbers of cases of environmental contamination and environmental incidents such as deaths of bees, birds and fish. Suggested questions are included in Annex A, Part I of the regular detailed reporting form.

3.2 Monitoring “regulatory and operational implementation” of the Code of Conduct

For this **second** main objective, this guidance recommends that priority be given initially to elements of the Code of Conduct selected on the basis of the following criteria:

- importance to the overall objectives of the Code, especially protection of health and the environment;
- concerns highlighted in past questionnaires and recent experience in implementation;

- ease of monitoring; and
- contribution to a database of useful end-results to allow review of trends over time.

In line with these criteria, the provisions of the Code of Conduct listed in Box 2 are identified as priorities for monitoring. Suggested questions are given in Annex A, Part II of the regular detailed reporting form.

Box 2. Provisions of the Code of Conduct and priorities for initial monitoring

- A. Article 3 on **pesticide management** (including pest and vector management): provisions of the Code on pesticide management, in particular Articles 3.8 and 3.9 on efforts to develop and promote IPM and IVM. In addition, the following articles are critical: Article 3.6 on avoidance of pesticides that require inappropriate personal protective equipment, especially for small-scale users and farm workers in hot climates; Article 3.10 on alternatives to pesticides; and Article 3.12 on resistance management strategies.
- B. Article 4 on **testing pesticides**: provisions of the Code on testing, quality control and effects under field conditions, in particular Article 4.2 on quality of pesticides, Article 4.4 on assistance by exporting governments, and Article 4.5 on post-registration surveillance and monitoring studies.
- C. Article 5 on **reducing health and environmental risks**: provisions of the Code to collect information on health and environmental effects of pesticides, including in relation to occupational exposure, all forms of poisoning, environmental contamination and residues in food and drinking water, in particular Articles 5.1.3, 5.1.6, 5.1.10 and 5.1.11.
- D. Article 6 on **regulatory and technical requirements**: provisions of the Code recommending countries to:
 - develop pesticide legislation that covers all stages of the pesticide life cycle (Article 6.1.1),
 - establish licenses and permits for pest control operators (Article 6.1.3),
 - establish pesticide registration schemes (Article 6.1.4),
 - promote regional collaboration (Article 6.1.8),
 - allow for re-evaluation and re-registration procedures (Article 6.1.9) and
 - collect information on trends and practices in manufacture, use and trade of pesticides and on illegal trade in pesticides (Articles 6.1.11 and 6.1.13).
- E. Article 7 on **availability and use**, in particular provisions of the Code to consider:
 - prohibition of highly hazardous pesticides (Article 7.5)
- F. Other articles on **selected standards of conduct**, in particular:
 - Articles 5.2.4 and 5.2.5 on actions by pesticide industry to reduce risks;
 - Article 5.3 on cooperation by government and industry to further reduce risks;
 - Articles 6.2.4, 6.2.6 and 6.2.7 on industry requirements;
 - Article 10 on labelling, packaging, storage and disposal; and
 - Article 11 on advertising

These provisions, along with a range of possible questions, are described more fully in Annex A, Part II of the regular detailed reporting form.

3.3 Monitoring “assessment and improvement” of the Code of Conduct

Third main objective of monitoring can be met either directly or indirectly. The monitoring questionnaires could include questions for outlining new and emerging issues or for identifying areas of the Code that should be strengthened. Review of stakeholders’ reports can also indirectly indicate to the JPM the continued relevance and effectiveness of the Code articles, whether they should be revised, and about new and emerging topics that should be addressed in a revised Code. For this purpose, all stakeholders should collect and supply information about the provisions of the Code of Conduct that are especially important at national level. They are also invited to outline the areas covered by the Code of Conduct for which there are the most significant problems of full observance. Suggested questions are included in Annex A, Part III of the regular detailed reporting form.

4. Roles of stakeholders in monitoring

Provisions of the Code of Conduct on monitoring differentiate governments, the pesticide industry, NGOs and other stakeholders. For example, Article 12 provides that governments “should” monitor observance and report on progress, whereas it “invites” the pesticide industry, NGOs and others to do so. The type of information to be provided also differs by entity, as described below.

4.1 Governments in collaboration with FAO, WHO and UNEP

Article 12.7 of the Code of Conduct envisions that governments, in collaboration with FAO, WHO and UNEP, will monitor and report on observance and implementation of the Code of Conduct in general. This covers their own degree of observance of relevant provisions and also the degree of observance of the pesticide industry and other entities in their jurisdiction of provisions addressed to them. More generally, governments are responsible for monitoring the extent to which the overall objectives of the Code are being met. Governments should bear each of these considerations in mind as they collect and report on information in response to this guidance.

At given times, FAO, WHO and UNEP will initiate monitoring through their international networks and regional and country offices and will compile and analyse the information received into a monitoring summary report to build awareness and understanding of issues relating to pesticides and to observance and implementation of the Code of Conduct. The three organizations will support effective use of this information, including use of the data to identify opportunities for further technical assistance in response to priorities and needs identified by countries and to consider updating the Code. More detail on the procedures for these activities is given in section 6 of this guidance.

4.2 Pesticide industry

Article 12.8 “invites” the pesticide industry to report on its product stewardship activities related to observance and implementation of the Code. As part of regular and *ad hoc* monitoring (see section 6), the pesticide industry may wish to provide information relevant to its observance of the provisions of the Code, including those addressed jointly to it and other stakeholders. In such cases, the pesticide industry is invited to provide its “monitoring report” to FAO, WHO and UNEP and may choose to present it at meetings of the JMPM. In this regard, it should be noted that certain items contained in Part II of the regular detailed monitoring form (see Annex A) relate directly to activities and responsibilities of the pesticide industry.

4.3 Non-governmental organizations and other interested parties

Article 12.9 “invites” NGOs and other interested parties to monitor activities related to implementation of the Code of Conduct. This encompasses the full spectrum of activities covered by the Code, including those under the responsibility of governments and the pesticide industry. Accordingly, as part of regular or *ad hoc* monitoring (see section 6), NGOs and other stakeholders may wish to provide information relevant to the observance and implementation of any or all provisions of the Code. In such cases, NGOs and other interested parties are invited to provide their “monitoring reports” to FAO, WHO and UNEP and may choose to present them at meetings of the JMPM. In addition, Article 11.3 calls upon international organizations and public sector groups to call attention to departures from Article 11 (on advertising).

4.4 Roles of FAO, WHO and UNEP

As per Article 12.6, FAO, WHO and UNEP are committed to provide full support to the observance of the Code of Conduct and are thus prepared to assist governments and other stakeholders, upon request and subject to available resources, in collecting the information noted in Annexes A and B and during other monitoring activities.

FAO's, WHO's and UNEP's functions in relation to the monitoring and reporting system include:

- circulate and publicize invitations to governments, the pesticide industry, NGOs and others to monitor and regularly report on items covered by this guidance;
- receive the regular and *ad hoc* monitoring reports from governments and other stakeholders;
- forward the regular and *ad hoc* monitoring reports from stakeholders to the relevant national authorities, as appropriate, and, if requested, provide technical assistance to follow up;
- review and analyse the reports; and
 - if the reports address issues of general relevance, or if similar critical issues are reported by several countries, present the case to the JMPM for their information and consideration; and
 - if the information collated indicates inadequate implementation of the Code and inadequate achievement of its main objective to protect human and animal health and the environment, consider revising the Code and associated guidance documents.

As mentioned above, one element of monitoring is helping to identify where technical assistance and other follow-up actions are necessary to promote observance and implementation of the Code. Upon request, FAO, WHO and UNEP should support those efforts, within the available resources. The support might include:

- facilitate sharing of relevant information;
- identify opportunities to coordinate work with other regional or international organizations and initiatives; and
- participate in discussions, technical assistance, capacity-building activities and development of further guidance and training materials.

FAO Conference (or other FAO governing bodies), WHO and UNEP governing bodies may, as appropriate, consider information obtained in this monitoring system. On the basis of such monitoring information and pursuant to Article 12.10, the FAO Conference (or other FAO governing bodies), WHO and UNEP governing bodies should periodically review the relevance and effectiveness of the Code of Conduct.

4.5 Role of the Joint Meeting on Pesticide Management¹

JMPM will be regularly informed by the JMPM secretariat of monitoring activities, including summaries of monitoring reports. They will advise FAO, WHO and UNEP on the recommended follow-up, in particular regarding identified critical issues in pesticide management and necessary revisions of the Code.

¹ Note: JMPM is not mentioned in the Code of Conduct

4.6. Clarification of roles in monitoring

Given the voluntary nature of the Code of Conduct, neither FAO, WHO, UNEP nor JMPM has enforcement powers to ensure compliance of the provisions of the Code or of any of the associated technical or policy guidance. These organizations also do not have the resources for extensive monitoring.

National governments and authorities have jurisdiction for pesticide management issues arising within their country. Any monitoring reports prepared by stakeholders and received by FAO, WHO and UNEP will be forwarded to the relevant national governments or authorities. As mentioned above, these reports will also be provided to the JMPM for their information, consideration and advice.

5. Collecting information at national level

Governments and other entities should have in place systems or the capability to collect and compile the information relevant for monitoring. This section describes some general steps that may be taken to assist them. Section 6 then provides the framework for reporting information and related follow-up actions.

5.1 Governments

Practical steps to assist governments in monitoring at national and, where appropriate, regional levels are described below.

5.1.1 Different types of monitoring require different tools

Given the varied nature of the provisions of the Code of Conduct, different methods will be required to collect the necessary information. For example, methods to collect information on environmental contamination and poisonings differ from methods to collect information on the manufacture, use and trade of pesticides.

5.1.2 Make use of existing systems and reports

Existing national regulatory systems and other initiatives will provide the core mechanism for collecting and compiling information related to observance and implementation of the Code of Conduct. Such mechanisms should be organized in such a way that enables governments to fulfil their monitoring responsibilities.

For some data, relevant data collection and reporting systems are already established under various international initiatives. Examples are the annual FAO questionnaire on pesticide consumption (see FAO statistics on pesticides (FAO, 2023)) or and the Rotterdam Convention's system for reporting (Rotterdam Convention, 2023) on severely hazardous pesticide formulations. Such mechanisms should be used whenever possible in order to avoid duplication. Reports developed under SAICM (Strategic Approach to International Chemicals Management) and by FAO, WHO and UNEP for related areas could also include supporting data. Similarly, existing summary reports on national actions taken to decrease risks to health and the environment according to the Code, such as HHP-related projects (see example from Mozambique [FAO, 2016]) could provide relevant examples and case studies.

Where necessary, new information-collecting mechanisms should be established.

5.1.3 Steps in monitoring high-priority items

High-priority items for monitoring are listed above in Box 2 in section 3.2 and reproduced in Part II of the detailed regular monitoring report form (Annex A). For each of these, the following steps should be taken.

- Identify officials/experts responsible for collecting and reporting this information. These people should be in all relevant sectors, including agriculture, environment, health, customs (e.g. for import/export data), labour (e.g. for occupational impacts), industry/commerce, and trade.
- Identify existing networks (e.g. in regional organizations such as the European Union and, in West Africa, the Permanent Inter-State Committee to Combat Drought in the Sahel) and other sources of information, and, to the extent possible, organize existing data to provide the necessary information.

- Ensure coordination and synergism among all authorities to avoid duplication of efforts and to make their monitoring more effective.
- Establish a mechanism to collect the required information.

5.1.4 Steps in monitoring other elements

Governments may follow a simpler process for monitoring other items in the Code of Conduct, as necessary. One approach could be use of a checklist and a questionnaire.

5.1.5 Collaboration with FAO, WHO and UNEP

Article 12.7 indicates that governments should monitor observance of the Code of Conduct “... in collaboration with FAO, WHO and UNEP”. Governments are invited to ask those organizations for assistance in collecting information, as outlined above. The organizations will provide such assistance, subject to the available resources. The role of the three organizations in monitoring is addressed further in section 4.

5.2 Other stakeholders

Other stakeholders, including the pesticide industry and NGOs, are invited to consider actions to enhance their ability to collect and compile the relevant information. It is suggested that they take note of the priority areas mentioned above to focus their efforts. Stakeholders are invited to provide information on their systems for collecting such information.

5.3 Combined information base

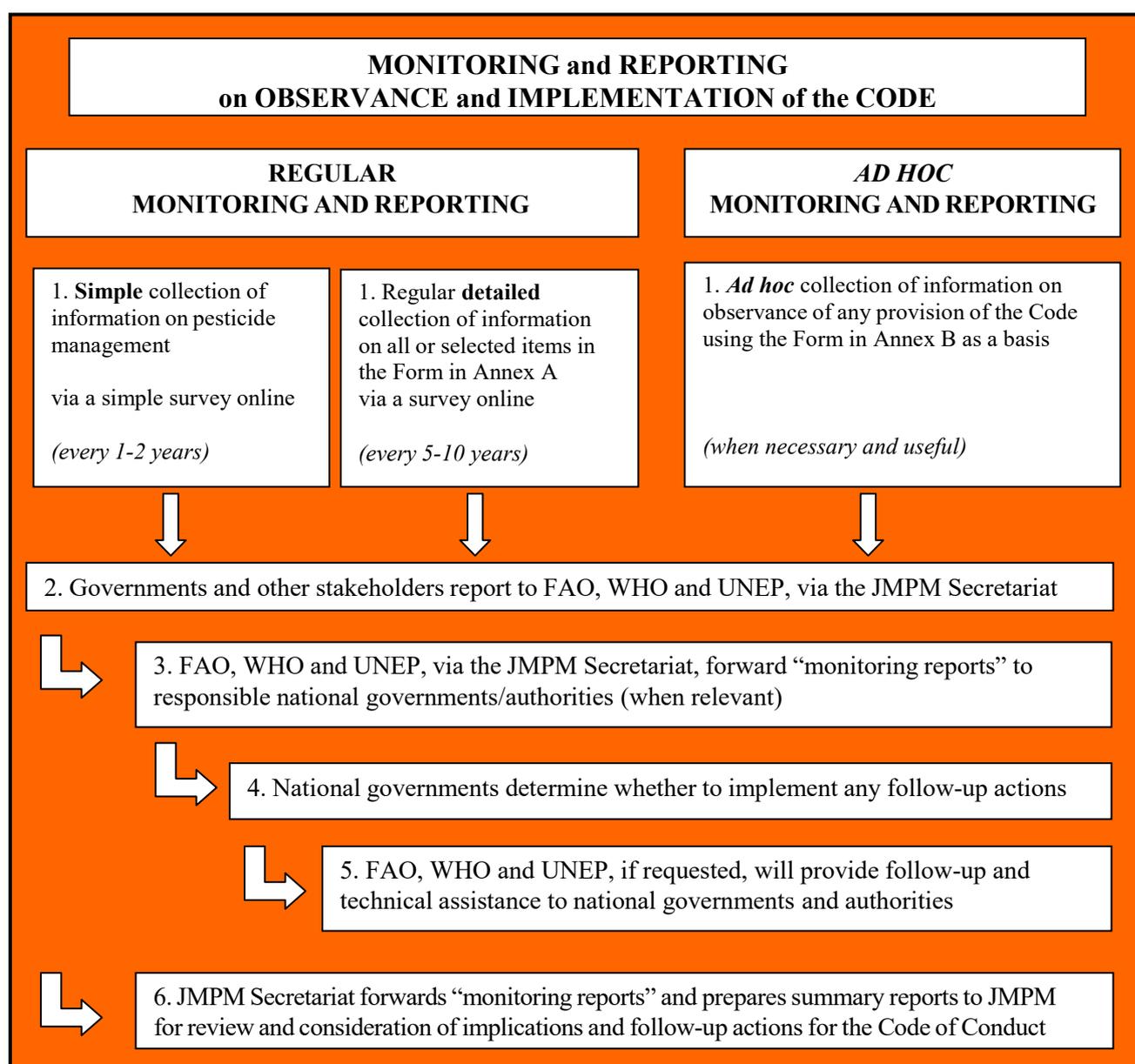
If the above elements are put in place by governments and other stakeholders, they will constitute a working system of information and data collection relevant to observance of the Code. Governments and the other entities are invited to make this information available in a publicly accessible format (e.g. a publication or article online) to ensure understanding of the status of implementation of the Code of Conduct over time. This system of collecting information should provide the basis for participation in the monitoring systems described in section 6.

6. Procedures for reporting and follow-up

An important purpose of this guidance is to obtain a more regular flow of information about observance and implementation of the Code of Conduct and to provide a simple, user-friendly approach for stakeholders to participate in monitoring. Common use of this approach will facilitate participation, promote comparable data, and enhance the information flow.

Sections 3 and 5 of this guidance set out the types of information that should be collected by governments and other stakeholders as a basis for monitoring observance and implementation of the Code. This section 6 describes the mechanism for reporting this information to FAO, WHO and UNEP by governments and other stakeholders, including industry and NGOs, and how the information will be assessed and used.

Overall approach and steps in reporting by governments and other stakeholders are illustrated in the following figure.



As shown in the figure, the system envisions two types of monitoring:

- **regular:**
 - by **simple** monitoring every 1–2 years (left-hand column);
 - by **detailed** monitoring and collecting information every 5–10 years (middle column); or
- **ad hoc**, as and when considered useful (right-hand column).

When appropriate, the JMPM secretariat will forward reports to the national authorities involved, which can then determine whether to implement any follow-up actions and/or request further assistance from FAO, WHO and UNEP. The JMPM secretariat will also present the reports to the JMPM for its consideration.

These steps are described in more detail below.

6.1 Regular monitoring and reporting

Step 1. Collecting information

a. Regular simple monitoring

Governments, industry, NGOs and other relevant, interested stakeholders are invited to collect information on a limited number of questions (e.g. 5–10). Some of the questions would be standard, recurrent questions to be included each time, allowing qualitative or quantitative trend analysis, while other questions could be different each time. The questions could be selected from the form in Annex A and from issues raised in *ad hoc* reports; they would be agreed by the JMPM at its regular meetings. To facilitate reporting, the questionnaires would be posted as a short on-line survey (with various communication tools if possible).

Such simple monitoring should be done at regular intervals (e.g. every 1–2 years). It is recommended that the reporting period cover several weeks to allow governments and stakeholders to coordinate and for internal consultation. The organization and reporting back (see step 6) could be led in turn by FAO, WHO and UNEP.

b. Regular detailed collection of information

Governments should, and stakeholders are invited to, collect information on the items identified on the form in Annex A. To facilitate reporting, the questionnaires would be posted as an on-line survey (with various communication tools if possible). The pesticide industry, NGOs and other interested parties may use this form, as applicable, or could develop the approach and format for monitoring and reporting that they consider the most appropriate, and report to FAO, WHO and UNEP, via the JMPM secretariat, on the approach taken. If possible, the alternative approach should be aligned as much as possible with the suggested form in Annex A to facilitate integration of the responses into an overall summary.

Monitoring can be done on the initiative of governments and stakeholders or at the invitation of FAO, WHO and UNEP at regular intervals (e.g. every 5–10 years). In view of previous experience and the level of resources required for detailed monitoring, organization and reporting back (see step 6), organization and reporting back could be led jointly by FAO, WHO and UNEP.

Step 2. Submission of regular reports by governments and other stakeholders

For both simple and detailed monitoring, FAO, WHO and UNEP will circulate invitations to governments, the pesticide industry and other stakeholders to complete questionnaires or submit reports on the necessary items, in line with the regular time frame(s). To encourage reporting and wider

participation, FAO, WHO and UNEP will advertise the survey(s) widely through their international networks and regional and national offices.

All countries and stakeholders will submit their responses (“monitoring reports”) to the three organizations (or the coordinating or leading one) via the JMPM secretariat.

All countries and stakeholders should be encouraged to publish their monitoring reports (or a summary), on line on their websites or in publications.

Step 3. Forwarding the report to national authorities

When appropriate, FAO, WHO and UNEP will forward the monitoring report(s), in particular those prepared by other stakeholders, to the national government authorities responsible for pesticide management for their consideration and management.

Step 4. Consideration and implementation of follow-up actions

Consistent with Article 12 and other provisions of the Code of Conduct, governments and other identified stakeholders should determine which, if any, actions are appropriate for addressing any issues raised in the monitoring report, to improve observance and implementation of the Code of Conduct.

Step 5. Technical assistance by FAO, WHO and UNEP

At this stage, FAO, WHO and UNEP, if requested, and within the available resources, will assist countries in responding to the issues raised in the reports. The three organizations may provide follow-up, including facilitating sharing of information and coordination at regional level, and provide technical assistance to national governments or authorities.

Step 6. Review and recommendations by JMPM

JMPM secretariat will compile the “monitoring reports” and prepare a summary report for review and consideration by the JMPM. It should include:

- a summary of the information collected;
- a section on major trends and conclusions indicated by the reported information, for both successful initiatives and critical areas. These should be provided, at a minimum, by region, with reference also to the situation in individual countries as considered appropriate; and
- draft recommendations for possible follow-up actions, in line with relevant provisions of the Code of Conduct and the items below.

Three organizations could then publish the report or a public summary or article on their websites.

JMPM will review the summary report and recommend follow-up actions, as appropriate. The recommended actions should remain in line with the objectives and provisions of the Code of Conduct and the roles envisioned for FAO, WHO, UNEP and other bodies in this regard. They may include:

- recommended actions to address issues or problems identified in the monitoring reports. The recommendations may be directed to governments, other stakeholders, international institutions and/or others, and may include:

- further steps at national or regional level to promote awareness, observance and implementation; and
- the provision of targeted capacity-building and technical assistance, as appropriate, to assist countries or regions in taking steps;
- recommend development of further guidance or other materials to assist countries in observing and implementing the Code of Conduct; and
- recommend modifications to the Code of Conduct and/or the procedures, as appropriate, taking into account technical, economic and social progress.

Results of the JMPM deliberations, including key elements of the report and any recommendations by the JMPM, could be submitted to the FAO Conference (or other FAO governing bodies), WHO and UNEP governing bodies, through the appropriate procedures, for their information or consideration.

6.2 *Ad hoc* monitoring and reporting

Step 1. Collecting information

Governments and stakeholders are invited to submit the results of monitoring on specific aspects of observance and implementation of the Code of Conduct at any time, as and when it is considered useful to provide such information. They should use the form in Annex B or another format that provides similar information. The information may include positive examples of observance and implementation of the Code, issues, weaknesses, cases of non-observance or other aspects of observance and implementation.

Step 2. Submission of ad hoc reports by governments and other stakeholders

Information from *ad hoc* monitoring should be provided to FAO, WHO and UNEP via the JMPM secretariat.

Steps 3 to 6, are similar to those for regular monitoring (section 6.1). Thus, how “*ad hoc*” information is summarized, analysed and used for follow-up recommendations by FAO, WHO, UNEP and JMPM will be similar to that for “regular” information.

References

Basel, Rotterdam and Stockholm Conventions. 2023. *Basel, Rotterdam and Stockholm Conventions home page.*

<http://www.brsmeas.org/>, accessed January 2023.

FAO. 1996. *Analysis of Government Responses to the Second Questionnaire on the State of Implementation of the International Code of Conduct on the Distribution and Use of Pesticides.* Rome.

<https://www.fao.org/3/cb5456en/cb5456en.pdf>, accessed January 2023.

FAO. 2010. *International Code of Conduct on the Distribution and Use of Pesticides - Regular monitoring report – 2008.* Rome.

http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Monitorin_questionnaire_2010.pdf, accessed January 2023, accessed January 2023

FAO. 2016. *Addressing Highly Hazardous Pesticides in Mozambique.* Rome

<http://www.fao.org/3/i5360e/i5360e.pdf>, accessed January 2023

FAO. 2023. *FAOSTAT on food and agriculture data*

<http://www.fao.org/faostat/en/#data>, accessed January 2023

FAO and WHO. 2014. *International Code of Conduct on Pesticide Management.* Rome/Geneva.

<https://www.fao.org/3/I3604E/i3604e.pdf>, accessed January 2023.

FAO and WHO. 2016. *Guidelines on highly hazardous pesticides.* Rome/Geneva.

<http://www.fao.org/3/a-i5566e.pdf>, accessed January 2023.

FAO and WHO. 2019. *Global situation of pesticide management in agriculture and public health - Report of a 2018 WHO–FAO survey,* Rome/Geneva.

<http://www.fao.org/3/ca7032en/ca7032en.pdf>, accessed January 2023.

FAO and WHO. 2021. *Managing pesticides in agriculture and public health - The International Code of Conduct on Pesticide Management A compendium of FAO and WHO guidelines and other resources: Second edition.* Rome/Geneva.

<http://www.fao.org/3/cb3179en/cb3179en.pdf>, accessed January 2023.

FAO and WHO. 2023. *Joint Meeting on Pesticide Management.* Rome/Geneva.

<https://www.fao.org/pest-and-pesticide-management/guidelines-standards/faowho-joint-meeting-on-pesticide-management-jmpm/en/>, accessed January 2023.

Rotterdam Convention. 2023. *Severely Hazardous Pesticide Formulations: How to report an incident*

<http://www.pic.int/Procedures/SeverelyHazardousPesticideFormulations/FormsandInstructions/tabid/1192/language/en-US/Default.aspx>, accessed January 2023

Annex A

International Code of Conduct on Pesticide Management

Regular Monitoring

Reporting form for regular detailed monitoring

Submitted by: [government]²

This form is provided to report information on the observance and implementation by governments and other stakeholders, where indicated, of the International Code of Conduct on Pesticide Management (the "Code of Conduct"), as per Article 12 of the Code. It has three main parts, which cover the three main objectives of monitoring:

- **Part I** is for collecting information about activities for "**promoting and raising awareness**" about the Code of Conduct, as mentioned in section 3.1 of the guidance.
- **Part II** is for monitoring "**regulatory and operational implementation**" of the Code of Conduct. It includes a list of suggested questions on the priorities identified in section 3.2 and Box 2 of the guidance.
- **Part III** is for collecting information for "**assessment and improvement**" of the Code of Conduct, as indicated in section 3.3 of the guidance.

This form can be used as such by governments for voluntary reporting at any time. Alternatively, FAO, WHO and UNEP will initiate regular reporting, in a simple or detailed way as mentioned in section 6 of the guidance document, and may use some, most or all of the questions or adapt them for specific surveys and purposes.

Practical suggestions for collecting the information requested

It is recommended that governments make an inventory and draw on existing sources in providing the requested information (see section 5 of the guidance document). As requested on the form, please identify the source of the information that is provided. In collecting the information requested, it will be important to seek the involvement of and input from all relevant ministries and other entities in key sectors, including agriculture, environment, health, customs (e.g. for trade data), labour (e.g. for occupational impacts), industry/commerce and trade. This should include coordination with relevant subnational authorities and entities. It will also be important to develop simple methods to address information gaps.

Please return this form to FAO, WHO or UNEP. You may use the following address for the JMPM secretariat: pesticide-management@fao.org.

When possible, it is requested that responses be provided in electronic format. An electronic version of this form can be made available on request at pesticide-management@fao.org. It should also be made available on the FAO website at: <https://www.fao.org/pest-and-pesticide-management/en/>.

² As noted in the guidance document, this form should be used by governments to submit their regular monitoring reports. The pesticide industry, NGOs and other interested parties may use this form, as applicable, or develop their own format for reporting, as described further in the guidance document.

Background Information

A. Contact details	
<i>Please provide the requested information</i>	
Country name:	
Date completing this form (DD/MM/YY)	
Name of agency or entity:	
Responsible and/or contact person:	
Mailing address:	
Telephone no.:	
Email address:	Web site url:
B. Responsibility	
Areas of responsibility or activity related to pesticides:	
<i>More than one box can be ticked if relevant</i>	
Legislation/regulation <input type="checkbox"/>	Pesticide registration/authorization <input type="checkbox"/>
Enforcement/inspection <input type="checkbox"/>	Research/testing <input type="checkbox"/>
Other <input type="checkbox"/>	<i>Please describe</i>
Human health <input type="checkbox"/>	Environment <input type="checkbox"/>
Other <input type="checkbox"/>	<i>Please describe</i>
Types of pesticides that are regulated by this agency (for regulatory agencies)	
<i>More than one box can be ticked if relevant</i>	
Agricultural pesticides <input type="checkbox"/>	Veterinary pesticides <input type="checkbox"/>
Disinfectants <input type="checkbox"/>	Wood preservatives <input type="checkbox"/>
Public health pesticides <input type="checkbox"/>	Household pesticides <input type="checkbox"/>
Other types of pesticides <input type="checkbox"/>	
C. Description of the agency or entity	
If available, please attach a recent report or document describing the structure and activities of this agency or entity (e.g. a recent annual report or a presentation made for a conference)	Information provided? Yes <input type="checkbox"/> No <input type="checkbox"/>

Part I. Monitoring “promotion and awareness raising” of the Code of Conduct

1.1. Does your country use or make reference to the International Code of Conduct on Pesticide Management for the management of:

Agricultural pesticides?

Yes; please explain and provide reference.....

No; please explain

Public health pesticides?

Yes; please explain and provide reference

No; please explain

1.2. To what extent are FAO/WHO guidelines or guidance on pesticide management used in your country? (available online at <https://www.fao.org/pest-and-pesticide-management/guidelines-standards/en/>)

Major use /often Moderate use

Minor use

Never

1.3. What activities have you conducted to promote the International Code of Conduct on Pesticide Management in the past 12 months?

Please report on any activities undertaken, at national, regional and/or international level, to raise awareness of and communicate about the Code of Conduct and to promote the Code’s principles and ethics. This could include activities such as development of brochures, contributions to papers highlighting the importance of the Code and the responsibilities of stakeholders, preparation of tools related to pesticide management, presentations at key events, training materials to promote better understanding of the Code, and projects that make direct reference to the Code.

If possible, please add links to websites.

1.4. Please describe the impacts that the activities reported in answer to question 1.1 have had, such as, e.g. new references made to the Code of Conduct in national or regional legal texts and policies; number of articles on pesticide management issues; reduction in the number of cases of acute pesticide poisoning; environmental contamination; environmental incidents such as death of bees, birds and fish; and national and international publications referring to such impacts.

Part II. Monitoring “regulatory and operational implementation” of the Code of Conduct

This part contains five sections, A–E.

A. Pest and pesticide management

This section requests information relevant to many sub-articles of Article 3 of the Code of Conduct regarding IPM and IVM, personal protective equipment, alternatives to existing pesticides and pest resistance management.

Integrated pest management (IPM) and integrated vector management (IVM) (Articles 3.8 and 3.9)

2.1. Is there a national IPM or IVM policy in your country?

IPM Yes; No

IVM Yes; No

2.2. Does your country have a national IPM or IVM programme to implement the policy and promote IPM and IVM?

- IPM:
- Yes, implemented throughout the country
 - Yes, but implemented only in specific locations or on specific crops
 - Yes, but it is not being implemented
 - No, there is no programme

- IVM:
- Yes, implemented throughout the country
 - Yes, but implemented only in specific locations or on specific crops
 - Yes, but it is not being implemented
 - No, there is no programme

2.3. Is IPM or IVM specifically mentioned in other policy documents (including laws and regulations, where applicable)?

IPM Yes; No; Don't know

IVM Yes; No; Don't know

2.4. Has implementation of IPM in your country led to an overall decrease:

in pesticide use IPM Yes; No; Don't know

IVM Yes; No; Don't know

in pesticide risk IPM Yes; No; Don't know

IVM Yes; No; Don't know

Please explain:

2.5. To what extent has your country been successful in promoting the use of IPM or IVM?

Please rank according to the following scale:

uncomfortable, expensive or not readily available, especially in the case of small-scale users and farm workers in hot climates

Not at all; To a small degree; To a large degree; Fully or completely

Alternatives to existing pesticides (Article 3.10)

2.12. To what extent have research on and the development of alternatives to existing pesticides that pose fewer risks (such as biological control agents and techniques; nonchemical pesticides and pest control methods; pesticides that are of low risk to human and animal health and the environment) been encouraged and promoted?

Agricultural pesticides

Not at all; To a small degree; To a large degree; Fully or completely

Public health pesticides

Not at all; To a small degree; To a large degree; Fully or completely

Resistance management (Article 3.12)

2.13. Does your country have significant problems with resistance of pests, including weeds and diseases?

In agriculture Yes; No

In public health (insecticide resistance) Yes; No

2.14. Do you have sufficient resources and expertise to address problems with pest resistance?

In agriculture Yes; No

In public health (insecticide resistance) Yes; No

2.15. To what extent has your government made efforts to collaborate with others, e.g. the pesticide industry, national and international organizations, in developing and promoting resistance management strategies, including requirements for labelling that states the mode of action?

Not at all; To a small degree; To a large degree; Fully or completely

Please describe the basis for your responses on a separate sheet of paper, including brief information on:

- significant examples in which pest resistance has been detected and is posing a problem in your country and the nature of the problem;
- need to address problems of pest resistance; and
- solutions to the problem

B. Testing of pesticides, quality control and effects in the field

This section requests information relevant to sub-articles of Article 4 of the Code of Conduct.

Facilities for quality control of pesticides (Article 4.2)

2.16. Do you have significant problems or concerns about the quality of the pesticides offered for sale or export in your country?

Yes; No

2.17. To what extent does your country have or have access to facilities to verify and exercise control over the quality of pesticides offered for sale or export?

Not at all; To a small degree; To a large degree; Fully or completely

2.18. Do you have significant problems or concerns about your ability to establish the quantity of active ingredient(s) and the suitability of their formulation, according to FAO or WHO specifications, when available?

Yes; No

2.19. To what extent do you have or have access to facilities to establish the quantity of the active ingredient(s) and the suitability of their formulation, according to FAO or WHO specifications, when available?

Not at all; To a small degree; To a large degree; Fully or completely

2.20. Does your national law or regulatory framework require pesticides to conform to relevant FAO or WHO specifications when available?

Yes; No

Please provide additional remarks on your responses to each of the above on a separate sheet of paper, if any.

Assistance by exporting governments in testing and analysis (Article 4.4)

2.21. Has your country received assistance during the past 3 years in training personnel in trial design and conduct, interpretation and evaluation of test data and risk–benefit analysis?

Yes; No

2.22. For exporting governments: To what extent do you assist low- and middle-income importing countries in training personnel in trial design and conduct, interpretation and evaluation of test data and risk–benefit analysis?

Not at all; To a small degree; To a large degree; Fully or completely

For those that provide such assistance, please respond to the following questions. Otherwise, please go to question 2.26.

2.23. Does your government have ongoing programmes or initiatives to assist personnel in low- and middle-income importing countries in trial design and conduct, interpretation and evaluation of test data and risk-benefit analysis?

Yes; No

2.24. Has your government provided funding to low- and middle-income importing countries for training in the above-mentioned areas?

Yes; No

2.25 Has your government made available experts to participate in training in the above-mentioned areas?

Yes; No

If the answer to any of the above is "Yes", please describe briefly on a separate sheet of paper.

2.26. Please also describe the extent to which you have taken action to promote maximum availability to and use by low- and middle-income importing countries of appropriate international assessments and evaluations of pesticide hazards and risks.

Not at all; To a small degree; To a large degree; Fully or completely

For those that have taken such actions, please describe them briefly on a separate sheet of paper.

Collaboration between the pesticide industry and governments in post-registration surveillance and monitoring to determine the fate and effects of pesticides under field conditions (Article 4.5)

2.27. To what extent has your government taken action to collaborate with the pesticide industry and with other governments in post-registration surveillance or in conducting monitoring studies to determine the fate of pesticides and their health and environmental effects under field conditions?

with industry:

Not at all; To a small degree; To a large degree; Fully or completely

with other governments:

Not at all; To a small degree; To a large degree; Fully or completely

For those that have taken such actions, please describe them briefly on a separate sheet of paper.

C. Reducing health and environmental risks

This section requests information relevant to sub-articles of Article 5 of the Code of Conduct.

Occupational exposure to pesticides and poisoning (Articles 5.1.3 and 5.1.6)

2.28. Does your government conduct surveys on occupational exposure to pesticides?

Regularly Occasionally Once recently None

2.29. Do the surveys cover?

The entire country

Selected regions of the country

Selected locations

2.30. Who do these surveys address?

Farm workers

Workers in formulation or manufacturing facilities

Others , please specify:

If the answer to any of the above is "Yes", please describe the surveys and methods used on a separate sheet of paper.

2.31. Do you document cases of poisoning?

Yes; No

2.32. Have you established poison control centres or facilities near areas where pesticide poisoning may occur?

Yes; No

If so, please describe these activities on a separate sheet of paper and include figures, if available.

2.33. Is medical assistance readily available in areas where pesticide poisoning may occur?

Yes; No

2.34. Is any training available that would assist in the identification and management of the symptoms of pesticide poisoning?

Yes; No

Collecting data on environmental contamination and incidents (Articles 5.1.10)

2.35. Has your country had incidents of contamination of the environment by pesticides during the past 3 years, e.g. of wildlife or aquatic ecosystems?

Yes; No

2.36. Have you established programmes or mechanisms to collect data on environmental contamination and specific incidents related to pesticides?

Yes; No

More specifically, have you collected data on the effects of pesticides on:

Wildlife: Yes; No

Endangered species: Yes; No

Aquatic ecosystems: Yes; No

Terrestrial ecosystems: Yes; No

Specific incidents that have harmed the environment (e.g. fish poisoning): Yes; No

If the answer to any of the above is "Yes", please describe the surveys and methods used on a separate sheet of paper.

Monitoring pesticide residues in food (Article 5.1.11)

2.37. Has your government established national maximum residue levels for food and feed items?

Yes; No

2.38. Has your government implemented a national system to monitor pesticide residues?

In food and feed Yes; No

In the environment Yes; No

In drinking-water Yes; No

2.39. If not, has your government recently conducted any studies on residues in food, in the environment or in drinking-water?

Yes; No

If the answer is "Yes", please describe the surveys and methods used on a separate sheet of paper.

2.40. In your country, are there accredited laboratories for analysis of pesticide residues?

In food and feed Yes; No

In the environment Yes; No

In drinking-water Yes; No

D. Regulatory and technical requirements (policy, legislation, trends in manufacture, use and trade)

This section elicits information relevant to most sub-articles of Article 6.1 of the Code of Conduct.

National legislation and enforcement (Article 6.1.1)

2.41. Has your government introduced the necessary legislation for the regulation of pesticides, covering their entire life cycle, and made provisions for its effective enforcement?

Yes; No

Please describe briefly on a separate sheet of paper successes and gaps in the legislation and enforcement, in particular to reduce the adverse effects of pesticides on health and the environment and to support sustainable agricultural practices.

Regulatory schemes (Article 6.1.3)

2.42. Has your government established licenses and permits for pest control operators?

Yes; No

Registration system (Article 6.1.4)

2.43. Does your government ensure that each pesticide product is registered before it is made available for use?

Yes; No

Please describe on a separate sheet of paper both successes and gaps in relation to the registration system, in particular to reduce the adverse effects of pesticides on health and the environment and to support sustainable agricultural practices.

Regional and international collaboration in pesticide registration (Article 6.1.8)

2.44. Does your country participate in a regional (i.e. collaboration among countries) pesticide registration scheme?

Yes, please specify name of regional scheme:

No

Comments:

Re-evaluation and re-registration system (Article 6.1.9)

2.45. Does your country have provisions in legislation (act, law, regulation) for re-registration or periodic or regular review of registered pesticide products?

- a) For agricultural pesticides:
 Yes; No; Don't know
- b) For public health pesticides:
 Yes; No; Don't know

2.46. Does your country have provisions in legislation (act, law, regulation) for restricting, de-registering or banning pesticide products?

- a) For agricultural pesticides:
 Yes; No; Don't know
- b) For public health pesticides:
 Yes; No; Don't know

Data on manufacture, use and trade (Article 6.1.11)

2.47. Have you established and applied methods to collect and record data on the import, export, manufacture, formulation, quality and use of pesticides?

Yes; No

2.48. Have you collected data regularly on the following:

- Import: Yes; No
Export: Yes; No
Manufacture: Yes; No
Formulation: Yes; No
Quality: Yes; No
Use: Yes; No

2.49. Does your government send any data to FAO in response to the annual questionnaire on pesticide consumption (<http://www.fao.org/faostat/en/#data>)?

Yes; No

If the answer to any of the above is "Yes", please describe in a separate sheet of paper or provide references to the type of data that have been collected, how often and whether there are any significant gaps.

Methods to detect and control illegal trade in pesticides (Article 6.1.13)

2.50. To what extent are illegal (e.g. sub-standard and/or counterfeit) pesticide products a concern in your country?

- Major or moderate (sub-standard or counterfeit products are readily available to the general public)
- Minor or none (sub-standard or counterfeit products are occasionally or rarely available to the general public)

Comments:

2.51. Have you established methods to detect, prevent and prohibit the production, sale, distribution or use of illegal pesticides in your country?

Yes; No

2.52. What mechanism (if any) does your country use to control and address counterfeiting and illegal trade of pesticides?

- National inter-agency cooperation
- Intergovernmental or international cooperation
- Other mechanism; please specify:
- None or not applicable

E. Availability and use

Prohibition of highly hazardous pesticides (HHPs) (Article 7.5)

2.53. Has your country identified HHPs that are registered or in use?

- Yes; No; Don't know

2.54. Does your national legislation include special provisions for the registration, production, distribution or use of HHPs?

- Yes; No; Don't know
 Partially – please explain:

2.55. Has your country formally requested assistance from international organizations (e.g. FAO or WHO) on HHPs?

- Yes; No; Don't know

2.56. Has your government prohibited the importation, distribution, sale and purchase of HHPs in accordance with Article 7.5, which indicates that such prohibitions "*may be considered if, based on risk assessment, risk mitigation measures or good marketing practices are insufficient to ensure that the product can be handled without unacceptable risk to humans and the environment*"?

Import of HHPs: Yes; No

Distribution of HHPs: Yes; No

Sale and purchase of HHPs: Yes; No

Please also indicate if your government has prohibited the:

Manufacture of HHPs: Yes; No

Export of HHPs: Yes; No

If "Yes", please describe on a separate sheet of paper which products have been made subject to such prohibitions, and explain what HHP criteria were used.

F. Selected standards of conduct

This section elicits information relevant to certain standards of conduct set forth in Articles 5, 6, 10 and 11 of the Code of Conduct.

Risk reduction by the pesticide industry (Article 5.2.4 and 5.2.5)

Please describe the extent to which the pesticide industry has made efforts to reduce risks from pesticides in relation to the following:

2.57. Making less toxic formulations available

Not at all; To a small degree; To a large degree; Fully or completely

2.58. Introducing products in ready-to-use packages

Not at all; To a small degree; To a large degree; Fully or completely

2.59. Developing application methods and equipment that minimize exposure to pesticides

Not at all; To a small degree; To a large degree; Fully or completely

2.60. Using returnable, refillable and/or recyclable containers when effective container collection systems are in place

Not at all; To a small degree; To a large degree; Fully or completely

2.61. Using containers that are not attractive to or easily opened by children, particularly for products for domestic use

Not at all; To a small degree; To a large degree; Fully or completely

2.62. Using clear and concise labelling

Not at all; To a small degree; To a large degree; Fully or completely

2.63. Halting sale of and recalling products as soon as possible when handling or use poses an unacceptable risk under any directions for use or restrictions and notifying the government

Not at all; To a small degree; To a large degree; Fully or completely

Please describe on a separate sheet of paper any positive actions that have been taken and any particular issues or concern in relation to the above-mentioned areas.

Cooperative actions by government and industry for risk reduction (Article 5.3)

Has your government alone and/or in cooperation with industry undertaken cooperative actions to further reduce risks in the following areas?

2.64. Promoting the use of suitable, appropriate, affordable personal protective equipment

Yes; No

2.65. Making provisions for safe storage of pesticides both in warehouses and at farms

Yes; No

2.66. Establishing services to collect and safely dispose of used containers and small quantities of left-over pesticides

Yes; No

2.67. Protecting biodiversity and minimizing adverse effects of pesticides on the environment (water, soil and air) and on non-target organisms

Yes; No

2.68. Raising awareness and understanding among pesticide users of the importance and ways of protecting health and the environment from possible adverse effects of pesticides.

Yes; No

Please describe on a separate sheet of paper any positive cooperative initiatives, as well as any particular issues or concern, in relation to the above-mentioned areas.

Industry requirements and conformity with relevant FAO and WHO specifications (Article 6.2.4)

2.69. Does the pesticide industry ensure that active ingredients and formulated products conform to relevant FAO and WHO specifications (<https://www.fao.org/pest-and-pesticide-management/guidelines-standards/faowho-joint-meeting-on-pesticide-specifications-jmps/pesticide-specifications/en/>)?

Yes; No

Please describe on a separate sheet of paper both successes and difficulties in relation to this matter, as applicable.

Voluntary responsive action (Article 6.2.6)

2.70. When problems occur in your country, does the pesticide industry voluntarily take corrective action and, when requested by the government, help to find solutions?

Yes; No

Please describe on a separate sheet of paper any positive examples and any difficulties in this regard.

Provision of data on trade, manufacture and sale by the pesticide industry (Article 6.2.7)

2.71. Has the pesticide industry provided the national government with clear, concise data on:

Export: Yes; No
Import: Yes; No
Manufacture: Yes; No
Formulation: Yes; No
Sales: Yes; No
Quality of pesticides: Yes; No

Labelling, packaging, storage and disposal (Article 10)

2.72. Do your country's requirements for pesticide labelling include use of the Globally Harmonized System of Classification and Labelling of Chemicals? (available online: <https://unece.org/about-ghs>)

- a) For agricultural pesticides:
 Yes; No; Don't know
- b) For public health pesticides:
 Yes; No; Don't know

Comments:

2.73. Are your country's requirements for pesticide labelling in line with the FAO/WHO guidelines or guidance? (available online: <https://www.fao.org/pest-and-pesticide-management/guidelines-standards/faowho-joint-meeting-on-pesticide-management-jmpm/guidelines-tools/en/>)?

- a) For agricultural pesticides:
 Yes; No; Don't know
- b) For public health pesticides:
 Yes; No; Don't know

Comments:

2.74. Does your government have policies and practices to prevent the accumulation of obsolete pesticides and used containers?

Yes; No

Advertising (Article 11)

2.75. In your country, to what extent have you noted that advertising of pesticides departs from the provisions of the Code of Conduct, i.e. statements not technically justified, exaggerated claims, variance from national regulatory decisions, misleading statements or comparisons, inappropriate incentives?

- Large extent (often and regularly)
- Some or little extent (rarely)
- Never
- Don't know

Part III. Monitoring “assessment and improvement” of the Code of Conduct

This section is designed for you to identify areas of the Code of Conduct of particular importance in your country and to highlight any problems related to pesticides that you consider merit attention. This will help assessment of the continued relevance and effectiveness of the Code articles or whether they should be revised and to identify new and emerging topics that should be addressed in a revised Code of Conduct.

3.1. Which provisions or articles of the Code of Conduct are particularly important in your country, and why? Please give examples in your answer.

3.2. Which provisions or articles of the Code of Conduct have more impact in improving pesticide management? Please describe these impacts at the national, regional or international levels.

3.3. Which areas covered by the Code of Conduct are subject to the most significant problems for full observance and implementation in your country? Please explain what the problems are and why you think they exist.

In answering these questions, please provide your professional opinion on the following:

- What are the strengths of the present pesticide management system?
- What are the weaknesses of the present pesticide management system?
- What are the major barriers to ensuring sound pesticide management?
- What are the priorities for strengthening pesticide management?
- In what areas could FAO and WHO possibly provide assistance for strengthening pesticide management?

3.4. Further to the above questions, please identify areas or articles of the Code that require clarification or strengthening? Please list them, and explain why.

3.5. Please indicate new and emerging issues in pesticide management that are not currently included in the Code and that you consider should be covered in the next revision of the Code? As mentioned in Article 12.10, please consider “technical, economic and social progress”.

3.6. Please provide any other comment regarding improving the relevance and effectiveness of the Code of Conduct.

Annex B

International Code of Conduct on Pesticide Management

***Ad hoc* Monitoring** **Reporting form for *ad hoc* monitoring**

Submitted by: _____³

This form is provided to report on specific aspects of observance and implementation of the Code of Conduct at any time, as and when it is considered useful to provide such information. The information may consist of positive examples of observance of the Code, problems in observance and implementation or other aspects as the case may be.

Such information should be provided on this form or in another format that provides similar information.

Please return this form to FAO, WHO or UNEP. You may use the following address for the JMPM secretariat: pesticide-management@fao.org.

When possible, it is requested that responses be provided in electronic format. An electronic version of this form can be made available on request at pesticide-management@fao.org. It should be made available on the FAO website at: <https://www.fao.org/pest-and-pesticide-management/en/>

1. Contact details	
<i>Please provide requested information</i>	
Name of entity submitting the monitoring report:	
Date completing this form (DD/MM/YY):	
Responsible and/or contact person:	
Mailing address:	
Telephone no.:	
Email address:	Web site url:

³ As noted in the guidance document, this form should be used by entities (governments and other stakeholders) recognized under the Code of Conduct that wish to provide *ad hoc* reporting of information on observance and implementation of the Code of Conduct. The requested information should be included on attached sheets.

2. Description of the entity submitting the report

Please describe the entity submitting this monitoring report and the nature of its involvement and interest in pesticide management issues relevant to the Code of Conduct

3. Types of pesticides addressed in the *ad hoc* report

More than one box can be ticked if relevant

Agricultural pesticides Veterinary pesticides Public health pesticides Household pesticides

Disinfectants Wood preservatives Other types of pesticides

4. *Ad hoc* monitoring information

Please provide information that you consider relevant to the observance and implementation of the Code of Conduct, in accordance with the provisions of the Code of Conduct. In order for this information to be further considered, it should:

- indicate the provision(s) of the Code of Conduct being addressed;
- address a matter(s) relating to observance and implementation of the provision(s), in accordance with the Code of Conduct;
- give the factual basis for the monitoring report and how the facts relate to observance and implementation of the provision(s) were obtained;
- provide contacts for entities engaged in the described activities, so that they may be contacted by FAO, WHO and/or UNEP;
- provide sufficient information to enable the JMPM secretariat to compile a summary of the issue(s) relating to observance and implementation of the Code; and
- be provided for the purpose of promoting improved information and understanding of observance and implementation of the Code of Conduct.

5. Signature

Name and title:

Date:

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World Health Organization <https://www.who.int/health-topics/neglected-tropical-diseases>
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