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REPORT

14th FAO/WHO joint meeting on pesticide management

14–15 October 2021
Virtual meeting
Geneva, Switzerland



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World Health Organization
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Contents

1.	Introduction	1
2.	Opening of the meeting	1
3.	Appointment of the chairperson and rapporteurs and adoption of the agenda.....	2
4.	Meeting procedure	2
5.	Developments and actions since the previous session of the JMPM	2
6.	Review of new guidance under development.....	3
6.1.	Guidance on phase-out options and reducing risk during phase-out of pesticides	3
6.2.	Guidance on using pesticide regulation to prevent suicides	4
6.3.	Guidance note on illegal trade in pesticides.....	4
6.4.	Guidance note on Internet sales of pesticides.....	4
7.	Revision of existing guidance	5
7.1.	Guidance on aerial application of pesticides	5
7.2.	Guidance on data requirements for the registration of pesticides.....	6
8.	Planning future work on FAO/WHO guidance	7
8.1.	Prioritizing review and updating of existing guidance	7
8.2.	Prioritizing the development of new guidance.....	8
8.3.	Encouraging use of FAO/WHO guidance.....	8
9.	Priority and emerging issues in pesticide management.....	9
9.1.	Highly hazardous pesticides.....	9
9.2.	Impacts of pesticides and fertilizers.....	9
9.3.	Toxics and human rights	9
10.	Revision of the FAO/WHO International Code of Conduct on Pesticide Management	10
11.	Closing and dates of future meetings.....	10
12.	Recommendations	11
	Annex 1. List of participants	13
	Annex 2. Agenda adopted by the JMPM	17

1. Introduction

The 14th FAO/WHO Joint Meeting on Pesticide Management (JMPM),¹ hosted by WHO, was held online on the afternoons of 14 and 15 October 2021. As for the 13th JMPM in October 2020, the meeting time was significantly reduced from the usual three-and-a-half days to two half days, because of the obligation to meet electronically due to COVID-19. The meeting included: an update on activities of FAO, WHO and UNEP; a review of progress in the production of new FAO/WHO guidance and revision of existing guidelines; proposals for developing new guidance and revising existing guidelines; a discussion of how to promote use of the guidance and agreement on next steps; a presentation on progress in the action plan for highly hazardous pesticides and the UNEP/FAO/WHO report on the impacts of pesticides and fertilizers; a presentation by the UN Special Rapporteur on Toxics and Human Rights, followed by discussion of how a human rights-based approach could be reflected in FAO/WHO guidance and in the Code of Conduct on Pesticide Management (the Code of Conduct); and a presentation of the process for revising the Code of Conduct, followed by discussion of whether an update is necessary and the issues to be considered if one is undertaken.

The recommendations made by the JMPM are summarized in section 12. The list of meeting participants is attached as Annex 1.

2. Opening of the meeting

The opening session was coordinated by Mr Rajpal Yadav, Scientist, Veterinary Public Health, Vector Control and Environment Unit, WHO Department of Control of Neglected Tropical Diseases. On behalf of WHO and as joint Secretariat of the JMPM, Mr Yadav welcomed the WHO and FAO panel members, observers and members of the JMPM secretariat to the 14th session of the JMPM. Mr Yadav also introduced two new participants, Ms Helena Casabona and Mr Bruno Cavalheiro Breitenbach, who were invited as observers as FAO panel member candidates and who are expected to join the JMPM in 2022 after formal nomination. Mr Bao Gen Gu, Senior Agricultural Officer for Pest and Pesticide Management, FAO Plant Production and Protection Division, then welcomed all present on behalf of FAO.

Mr Raman Velayudhan, Unit Head, Vector Control and Environment, WHO Department of Control of Neglected Tropical Diseases, opened the meeting and welcomed the participants. He expressed his appreciation for the work of the JMPM, noting that the technical guidelines and the Code of Conduct not only provide excellent advice on sound management

¹ The JMPM was created in 2007 to advise FAO and WHO on implementation of the FAO/WHO International Code of Conduct on Pesticide Management (the Code of Conduct) and on new developments, problems or issues deserving of attention in pesticide regulation and management. The JMPM members are drawn from the FAO Panel of Experts on Pesticide Management and the WHO Panel of Experts on Vector Biology and Control. Representatives of other international organizations such as the UN Environment Programme (UNEP), the Organization for Economic Co-operation and Development (OECD), pesticide and biopesticide producers' associations and selected nongovernmental organizations involved in pesticide risk reduction are also invited to participate in meetings as observers. Secretariat support is provided jointly by FAO and WHO. The annual meetings of the JMPM are organized by FAO and WHO in turn.

of pesticides at different stages of their life cycle but also help to reduce the development of resistance to insecticides used in vector control, which is of great importance to the WHO vector control programme. Mr Velayudhan highlighted the growing recognition of the importance of sound pesticide management, noting that WHO is receiving more and more requests for short courses on the subject. He concluded by expressing his hope that UNEP would soon join the JMPM and thanked the observer organizations for contributing so much to the work of the JMPM and other WHO activities.

3. Appointment of the chairperson and rapporteurs and adoption of the agenda

Mr Michael Eddleston, University of Edinburgh, was nominated as Chair of the meeting. Ms Lilian Tornqvist, Swedish Chemicals Agency, was nominated to serve as co-Chair. Ms Sandhya Kulshrestha, consultant to the Indian Ministry of Agriculture, and Mr Lance Wormell of the United States Environmental Protection Agency, were appointed rapporteurs.

The meeting agenda was adopted and is provided in Annex 2.

4. Meeting procedure

The Chair informed the participants about the working procedures, notably management of participants' interventions during the online meeting. FAO and WHO indicated that they had received and reviewed declarations of interest from all panel members participating in the 14th Session of the 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 meeting.

5. Developments and actions since the previous session of the JMPM

Reports on activities undertaken since the previous JMPM, in October 2020, were made by WHO (Rajpal Yadav and Mr Richard Brown, Technical Officer, Chemical Safety and Health Unit), FAO (Mr Baogen Gu and Ms Christine Fuell, Rotterdam Secretariat Team leader) and UNEP (Mr Gamini Manuweera, Programme Management Officer). These and the other presentations and documents are posted on the JMPM-restricted website. Regarding the WHO and FAO updates, of particular interest to the JMPM was publication of new FAO–WHO guidance on pesticide licensing schemes, developed with support from the JMPM, as well as a second edition (in English and French) of the Compendium of FAO and WHO guidance and other resources on managing pesticides in agriculture and public health. WHO also published several scientific articles related to disease vector control, including two on management of

vector-control insecticides,^{2,3} and WHO guidance on aircraft disinsection.⁴ FAO has restructured its pest and pesticide management website, which now has direct linkage to JMPM-related activities.⁵ The Rotterdam Convention Secretariat reported on recent meetings, such as the Tenth Conference of Parties and the 17th meeting of the Chemicals Review Committee, which recommend listing of two new pesticides, iprodione and terbufos, in Annex III of the Convention.

Both organizations continue their global, regional and country activities to promote pesticide risk reduction, for example through training in chemical safety and work on suicide prevention (WHO) and farmer field schools (FAO). WHO and FAO informed the meeting that a formal request will soon be made to invite UNEP to join the JMPM joint secretariat.

In the UNEP report on activities, of particular interest to the JMPM was draft guidance on alternatives to highly hazardous pesticides, soon to be discussed with stakeholders of the International Conference on Chemicals Management. UNEP has also completed a 5-year project to measure the levels of persistent organic pollutants in air, water and human milk in various countries and has provided the data to the Stockholm Convention secretariat.

6. Review of new guidance under development

6.1. Guidance on phase-out options and reducing risk during phase-out of pesticides

The JMPM received an update by the lead author, Ms Andrea Rother, on progress in guidance and proposals for continuing the work, which include the following:

- The guidance would be for countries that have decided to remove a product from the market because of environmental and/or human health impacts of the different phase-out options on developing and implementing a phase-out plan for risk reduction .
- The guidance would not cover the entire pesticide life cycle but would begin with the formal decision to remove a pesticide from the market or an industry's decision to voluntarily withdraw a pesticide. In addition, the guidance would not cover the trade implications of pesticide phase-out.
- The guidance would address:
 - the legislative elements of the phase-out process, including a rights-based approach, to guide countries that do not have applicable legislation;
 - the roles and responsibilities of different stakeholders;
 - different types of phase-outs (e.g., long, short, partial); and
 - risk communication during the phase-out period and its financing

² Management of insecticides for use in disease vector control: a global survey. *BMC Infect Dis.* 2021;21:468 (<https://doi.org/10.1186/s12879-021-06155-y>).

³ Management of insecticides for use in disease vector control: Lessons from six countries in Asia and the Middle East. *PLoS Negl Trop Dis.* 2021;15(4):e0009358 (<https://doi.org/10.1371/journal.pntd.0009358>).

⁴ WHO aircraft disinsection methods and procedures. Geneva: World Health Organization; 2021 (<https://apps.who.int/iris/handle/10665/339863>).

⁵ <https://www.fao.org/pest-and-pesticide-management/guidelines-standards/en/>

The JMPM welcomed the progress made and recommended that the guidance working group, assisted by an FAO consultant, prepare a revised draft for review at the next JMPM inter-sessional meeting(s). Participants in the meeting were invited to send written comments by mid-November 2021 to the JMPM secretariat.

6.2. Guidance on using pesticide regulation to prevent suicides

The JMPM received a report from the lead author, Mr Michael Eddleston, on progress in preparing the guidance and steps for continuing to develop it, ensuring consistency with ongoing WHO work on suicide prevention.⁶ The JMPM recommended that work on the guidance continue as proposed, with preparation of a revised draft for initial review by colleagues in regulatory agencies and subsequent JMPM review by early 2022. The document should follow the usual FAO–WHO guidance structure, the main audience of which is pesticide regulators.

6.3. Guidance note on illegal trade in pesticides

The JMPM endorsed the revised annotated outline for the guidance note prepared by the FAO secretariat and recommended that work on the document continue as proposed, with the note to be drafted by a consultant and considered at the next inter-sessional meeting(s). The JMPM also took note of the following suggestions made by individual meeting participants:

- The guidance note should build on work in this area conducted by other organizations, such as the Organization for Economic Co-operation and Development (OECD).
- Coordinated action within national agencies and between countries and for traceability should be highlighted.
- Farmer training, including an understanding of farmers' incentives to use illegal pesticides, should be addressed.
- Modern technology, such as an application for border control, quick response (QR) codes and blockchain technology for traceability, should be considered.

6.4. Guidance note on Internet sales of pesticides

The JMPM reviewed in detail a first draft of the guidance note prepared by an FAO consultant and recommended that work on the note continue, with a revised draft to be prepared for the next inter-sessional meeting(s). Meeting participants were invited to send written comments by mid-November.

Individual participants in the JMPM meeting suggested that the guidance note should:

- Better define the scope, which should cover both national and international trade.
- Include estimates of the percentage of total pesticide sales made online, according to FAO data and other reliable sources, and the rate of increase in online sales.

⁶ See the WHO publication *LIVE LIFE: An implementation guide for suicide prevention in countries* (17 June 2021) at <https://www.who.int/publications/i/item/9789240026629>.

- Identify the key legal and regulatory challenges and provide guidance on, for example:
 - how pesticide (and other) legislation can address online sales
 - how to address existing problems, such as online sale of “innovative” pesticide-like products that are not approved
 - regulators’ requirements and responsibilities
 - operators’ responsibilities and the roles of platforms vis-à-vis sellers
 - support to buyers, such as, for example, management of complaints from buyers in case of sub-standard products.
- Review how different countries, including low- and middle-income countries (LMICs), regulate online pesticide sales, and consider consolidating them in a list of recommended best practices.
- Outline the modalities, characteristics and key features of online sales, with the advantages and risks of this trading method (e.g., merge sections 2.2, 2.3 and 3 to make section 2 more balanced and focused on the specificity of the online market). This would include identifying storage, transport and delivery of products sold online as key areas of risk that are largely unregulated, as couriers do not know what they are carrying; possible guidance could be that delivery of pesticides be restricted to qualified couriers. Regulation of the delivery of pharmaceuticals could be investigated as a parallel situation.
- Provide an example of an e-license for sale, import and/or export.
- Explain how countries could incorporate inspection of online sales into the training of inspectors and customs officials, perhaps by use of computerized monitoring systems to scan Internet trade (e.g., with keywords) to trigger inspection. Review of the lessons learnt in the pharmaceutical sector could be useful.
- Add a risk communication component to cover precautions for end-users and buyers.
- Consider the implications for biopesticides and questions of quality control, notably for microorganisms.

The JMPM recommended that a JMPM working group be created to guide and assist in writing the guidance. Mr Tao Chuanjiang offered to lead the working group, and others interested in joining were asked to contact the JMPM secretariat.

7. Revision of existing guidance

7.1. Guidance on aerial application of pesticides

The JMPM reviewed a first revision of the guidance from 2001 prepared by an FAO consultant and recommended that work on the draft continue and that the regulatory aspects be strengthened with inputs from JMPM colleagues in regulatory agencies so that a new draft might be available for review at the next inter-sessional meeting(s). The JMPM also recommended that the JMPM secretariat share the draft with regulators and experts in LMICs so that could review the document to ensure that it addresses the needs of their countries.

The JMPM recommended that JMPM participants send the consultant other relevant information and contacts as soon as possible and that an electronic (e.g., Zoom) meeting be planned when the consultant is ready. The consultant noted that achieving the right level of detail was challenging and advice on locust control and forestry spraying would be particularly

helpful, as well as on international trends, training and monitoring. The working group for this guidance, comprising JMPM members, experts from various groups such as the FAO locust control team, the WHO vector control experts and the OECD sub-group on drones, would be consulted.

Individual participants at the JMPM meeting noted that the guidance should address:

- when and when not to use aerial spraying, including why aerial spraying is prohibited in the European Union
- the importance of communication, recording and monitoring:
 - communicating the risk of upcoming applications, e.g., pre-treatment posting (on-site and on social networks) with a list of the chemicals to be used
 - recording the details of treatment
 - monitoring after application: drift, exposure and impacts determined through post-application environmental and bio-monitoring as a basis for registration or a policy decision to allow or prohibit future aerial spraying. Exposure of workers (mixers and loaders), communities (including schools), organic crops, non-target crops and the environment (and non-target organisms) must be checked and avoided.
- registration challenges such as:
 - the types of pesticides and formulations that are acceptable for use in aerial spraying by both planes and drones (with examples from countries such as India that have developed requirements for locust control and public health uses and in consultation with CropLife guidance under development)
 - the use of nanopesticides and specific solvents for drone application to offset constraints posed by very small tank capacity
 - the need for different risk assessment models (human health exposure, drift) to reflect aerial application scenarios by planes and drones
 - the case of biopesticides and biocontrol
- other issues such as:
 - use of significant amounts of water to obtain the desired droplet size and sufficient coverage, which can be problematic in countries with water shortages
 - safety aspects, distinguishing the case of pilots (who should never handle pesticides) from those of mixers and loaders.

7.2. Guidance on data requirements for the registration of pesticides

The JMPM received a report from the FAO secretariat on progress in revising the 2013 guidance on registration of pesticides and recommended that the work continue, focusing in the coming months on the main part of the document as well as on annexes A and B (on data requirements for chemical pesticides) and annex H (on equivalence determination). The JMPM endorsed the proposal to develop the main text and annexes as separate entities that could be updated separately in the future. JMPM participants agreed to send comments to the FAO secretariat by mid-November 2021 on (i) the structure of the body of the text and topics that might be strengthened or added, (ii) slight restructuring of annexes A and B and (iii) the new annex H. More detailed comments on the content of the text and on annexes A, B and H will be sought in the first half of 2022.

The JMPM recommended that information on the status of other work on data requirements for semiochemicals and on minor formulation changes, be sought, with a view to updating annexes C, D and G of the FAO/WHO guidance in the future. The JMPM recommended that addition of data requirements for other types of pesticide products (e.g., public health insecticides, nanopesticides) should be considered in the future if resources are available.

The meeting participants agreed to send relevant information (e.g., on European Union work on semiochemical data requirements) to the FAO secretariat.

8. Planning future work on FAO/WHO guidance

8.1. Prioritizing review and updating of existing guidance

The JMPM considered proposals for reviewing and updating existing guidance as listed below. The list identifies priorities identified in an online survey conducted in May 2021 with the participation of JMPM, FAO headquarters and regional plant protection officers. The priorities were subsequently reviewed by an ad-hoc group that included the FAO panel members Lance Wormell and Tao Chuanjiang and an observer from a nongovernmental organization, Meriel Watts.

Proposed priorities for reviewing and updating existing guidance

- **Compliance and enforcement** of a pesticide regulatory programme (2006)
- **Retail distribution of pesticides**, with particular reference to storage and handling at the point of supply to users (1988)
- Organization and operation of **training schemes and certification procedures for operators** of pesticide application equipment (2001)
- Good practice for **ground application** of pesticides (2001)
- Developing a **reporting system for health and environment incidents** resulting from exposure to pesticides (2009)

The JMPM recommended that priority be given to the 1988 guidance on retail distribution of pesticides and the 2009 guidance on developing a reporting system for health and environmental incidents. The first step in revision of both guidelines will be for JMPM members to provide comments and identify the main issues for revision.

The JMPM noted that it would also be useful to have input from pesticide regulators in LMICs, who are the primary audience and users of the guidelines. The JMPM therefore recommended that options for engaging with LMIC regulators be sought to review the JMPM priorities for revising existing guidance.

8.2. Prioritizing the development of new guidance

The JMPM considered proposals for new guidance, as listed below. These proposals were also identified in the online survey in May 2021 and subsequently reviewed by the ad-hoc group, as mentioned above.

Proposed priorities for new guidance

- Re-registration
- Good practice in rodent control
- Pesticide risk communication beyond labels
- Regulation and use of pesticides that may contribute to development of antimicrobial resistance in humans
- Establishment and evaluation of post-harvest intervals and livestock re-entry intervals
- Sustainable funding of pesticide regulatory agencies: A legal, policy and financial overview.

The JMPM recommended that priority be given to pesticide re-registration and funding of pesticide regulatory agencies. The JMPM also recommended that options for engaging with LMIC regulators be sought to review these priorities. The JMPM secretariat reiterated that new developments would be subject to the available resources and internal FAO/WHO priorities as well as to JMPM members' support and interest in conducting a new activity.

8.3. Encouraging use of FAO/WHO guidance

The JMPM agreed that information should be collected on the use of FAO/WHO guidance by pesticide regulators in LMICs, notably on whether the guidance is used and how it could be made more useful and more widely used. The JMPM therefore recommended that:

- JMPM participants provide information on how the guidance is being used, how they promote its use and what more could be done to increase its use;
- better understanding be obtained of why some potential users find it difficult to understand the guidance and of how to make guidance documents more useful; and
- FAO and WHO increase capacity-building in LMICs in use of the guidance and other pesticide regulatory tools.

FAO and WHO were invited to better monitor the number of downloads of guidelines on their websites for a first estimate of use of the guidelines. A further step would be to examine the results and action taken by countries and whether they could be attributed to use and implementation of the guidance.

9. Priority and emerging issues in pesticide management

9.1. Highly hazardous pesticides

The JMPM received a report from the FAO secretariat on progress in the action plan on highly hazardous pesticides, including a review of the main goal and objectives of the plan, changes made since the last version, the current status and next steps. The plan is nearly final but is awaiting another, wider consultation and internal clearance.

9.2. Impacts of pesticides and fertilizers

The JMPM received a report from the UNEP secretariat on the status of the UNEP/FAO/WHO report on impacts of pesticides and fertilizers, which is being finalized by UNEP. It is not yet published, but a summary for policy-makers was made available to the first segment of the fifth session of the UNEP Assembly (UNEA-5.1) in February 2021. The JMPM was informed that UNEP is discussing how to present the document so as to incite action to reduce the impacts of pesticides and fertilizers. Participants expressed the hope that the report would result in resolutions at UNEA-5.2, noting that the recommendations in the report were made more than 20 years ago and that transformative change is now necessary.

9.3. Toxics and human rights

The JMPM heard a presentation by the UN Special Rapporteur on Toxics and Human Rights, Mr Marcos Orellana, who described his work and explained the origin of the rights-based approach to pesticide pollution, i.e., that unwitting, involuntary exposure to pesticides compromises people's fundamental rights (e.g., to home, health and family). He said that pesticides were among the priorities of his mandate, and he welcomed the opportunity to observe the work of the JMPM. He advocated for pesticide management to be based on a rights-based approach, in which "no one is left behind", focusing on prevention of exposure to toxics, including highly hazardous pesticides, and on substitution. Citing the UN Secretary-General, he argued that "business as usual" in pesticide policy and regulation is not an option in face of the current triple priorities of reducing pollution, slowing climate change and protecting biodiversity. He said that four types of information are part of his mandate: adverse effects of pesticide exposure, use of pesticides as weapons for land-grabbing, suicide by pesticide, in particular by paraquat in rural communities, and double standards of protection.

The JMPM thanked the UN Special Rapporteur for his presentation and recommended that further JMPM discussion be held on the proposal to incorporate a human rights-based approach, as described by the FAO Legal Officer and the Special Rapporteur on Toxics and Human Rights, in FAO/WHO JMPM guidance.

10. Revision of the FAO/WHO International Code of Conduct on Pesticide Management

The JMPM was informed of the process for revising the Code of Conduct by an FAO consultant who has participated in the most recent three revisions undertaken over the past 35 years. The consultant stressed that the process could be long, complicated and resource-intensive, particularly as the revised Code must be reviewed and adopted by the FAO Conference, the highest governing body of FAO, as well as by the WHO Executive Board.

The JMPM considered the pros and cons of initiating a revision and recommended that further discussions be held to decide on the rationale, key issues and timing (in light of UNEP joining the JMPM secretariat) of a possible revision.

In its initial discussion of this proposal, the JMPM identified the following issues for future consideration:

- **Rationale:** whether there is strong justification for a fourth revision, such as:
 - a policy shift in FAO or WHO or in the global chemical and waste management framework (e.g., the Strategic Approach to International Chemicals Management)
 - identification of weaknesses, gaps or outdated sections in the current Code
 - whether the Code should have a new “goal” or “vision” and what it should be.
- **Key issues**
 - whether the shift in FAO secretariat resources, from developing guidance to revising the Code, would be justified;
 - whether the Code could be made legally binding, fully or partly, and the consequences for the process and parties involved; and
 - the fact that stakeholders and country representatives would have to be engaged in the revision early in order that their ideas be considered.

The meeting participants were invited to send comments to the JMPM secretariat as a basis for an issues paper to be prepared for future JMPM meetings.

11. Closing and dates of future meetings

Mr Yadav and Mr Gu, on behalf of WHO and FAO, respectively, thanked the JMPM panel members and the observers for their contributions and reaffirmed the usefulness of the group’s work to pesticide regulators worldwide. They gave special thanks to three retiring JMPM FAO panel members, Ms Lilian Tornqvist, Mr Donald Ward and, in absentia, Mr Julio Sergio De Britto, whose participation in the group will be greatly missed. (FAO will transmit the message to Mr De Britto, who was absent from the meeting.) Ms Tornqvist and Mr Ward thanked the JMPM for fruitful, enjoyable collaboration over the years and said they would miss the group but were confident that the JMPM would continue its good work.

The Chair then informed the JMPM of the proposed timing of the meetings in 2022, as follows (with dates to be set after polling):

- inter-sessional virtual meetings in February and in May/June, and
- the annual meeting (15th FAO/WHO JMPM) in mid-October, possibly back-to-back with an FAO conference on biopesticides/plant protection.

12. Recommendations

The recommendations of the JMPM referred to in the text above are summarized below.

FAO/WHO Guidance on phase-out options and reducing risk during phase-out of pesticides

- The JMPM recommends that work on the new guidance continue. Specifically, the JMPM recommends that the guidance working group prepare a revised draft for review at the next JMPM inter-sessional meeting(s).

FAO/WHO Guidance on utilizing pesticide regulation to prevent suicides

- The JMPM recommends that work on the new guidance continue, with preparation of a revised draft for initial review by colleagues in regulatory agencies and subsequent JMPM review by early 2022.

FAO/WHO Guidance note on illegal trade in pesticides

- The JMPM endorses the annotated revised outline.
- The JMPM recommends that work on the new guidance note continue as proposed, the note to be drafted by a consultant and to be considered at the next inter-sessional meeting(s).

FAO/WHO Guidance note on Internet sales of pesticides

- The JMPM recommends that work on the new guidance note continue, with a revised draft to be prepared for the next inter-sessional meeting(s).
- The JMPM recommends further that a JMPM working group be created to guide and assist in writing the guidance note.

FAO/WHO Guidance on aerial application of pesticides

- The JMPM recommends that work on revision of this 2001 guidance continue and that the regulatory aspects be strengthened, a new draft to be reviewed at the next inter-sessional meeting(s).
- The JMPM also recommends that the JMPM secretariat share the draft with regulators and experts in LMICs so that they can review the document to ensure that it addresses their countries' needs.

FAO/WHO Guidance on data requirements for the registration of pesticides

- The JMPM recommends that work on revising the 2013 guidance continue and endorses the proposal to develop the main text and annexes as separate entities, which could be updated separately in the future. The revision should focus in the coming months on the

main part of the document and on annexes A and B (on data requirements for chemical pesticides) and annex H (on equivalence determination).

- The JMPM recommends that information on the status of other work on data requirements for semiochemicals and on minor formulation changes be sought, with a view to updating annexes C, D and G of the FAO/WHO guidance in the future.
- The JMPM recommends that addition of data requirements for other types of pesticide products (e.g., public health insecticides, nanopesticides) be considered in the future if resources are available.

Prioritizing review and updating of existing FAO/WHO guidance

- The JMPM recommends that priority be given to the 1988 guidance on retail distribution of pesticides and the 2009 guidance on developing a reporting system for health and environmental incidents.
- The JMPM recommends that options for engaging with LMIC regulators be sought to review the JMPM priorities for revising existing guidance.

Prioritizing the development of new FAO/WHO guidance

- The JMPM recommends that priority be given to developing guidance on pesticide re-registration and to funding pesticide regulatory agencies.
- The JMPM recommends that options for engaging with LMIC regulators be sought to review the JMPM priorities for developing new guidance.

Encouraging the use of FAO/WHO guidance

- The JMPM recommends that JMPM participants provide information on how they promote use of the guidance, on how the guidance is used and on ideas for what more could be done to increase its use.
- The JMPM recommends that better understanding be obtained of why some potential users find it difficult to understand the guidance and that ways be found to make guidance documents more useful.
- The JMPM recommends that FAO and WHO increase capacity-building in LMICs in use of the guidance and other pesticide regulatory tools.

Priority and emerging issues

- The JMPM recommends that further JMPM discussion be held on the proposal to incorporate a human rights-based approach, as described by the FAO Legal Officer and the UN Special Rapporteur on Toxics and Human Rights, in FAO/WHO JMPM guidance.

Revision of the FAO/WHO Code of Conduct on Pesticide Management

- The JMPM recommends that further JMPM discussion be held to decide the rationale, key issues and timing for revising the Code of Conduct.

Annex 1. List of participants

FAO Panel Members

Mr Donald Ward, Food and Regulatory Policy Directorate, Policy and Trade Branch, Ministry for Primary Industries - Manatū Ahu Matua, New Zealand

Ms Lilian Tornqvist, Swedish Chemicals Agency, Adviser in International Affairs, Sweden

Mr Julio Sergio De Britto (*unable to attend*), National Agriculture Inspector Audit, General coordination of Pesticide, Agriculture inputs Inspection Department, Agriculture Protection Secretariat, Ministry of Agriculture Livestock and Food Supply, Brazil

Mr Sylvain Nafiba Ouedraogo, Permanent Secretary, Sahelian Pesticides Committee, Institut du Sahel, Mali

Mr Sherif Mohamed Taha, Central Laboratory of Residue Analysis of Pesticides and Heavy Metals in Food, Egypt

Mr Tao Chuanjiang, Health Division Director, Institute for the Control of Agrochemicals, Ministry of Agriculture, China

Mr Lance Wormell, Branch Chief, United States Environmental Protection Agency, Office of Pesticide Programs, Field and External Affairs Division, United States of America

WHO Panel Members

Professor Michael Eddleston, Professor of Clinical Toxicology, University of Edinburgh, Honorary Clinical Toxicologist, National Poisons Information Service, Edinburgh and Royal Infirmary of Edinburgh, United Kingdom

Ms Sandhya Kulshrestha, Consultant (Pharma), Directorate of Plant Protection, Quarantine and Storage, Department of Agriculture, Cooperation & Farmers' Welfare, Ministry of Agriculture and Farmers' Welfare, India

Professor Andrea Rother, Head, Environmental Health Division, Deputy Director, Centre for Environmental and Occupational Health Research, School of Public Health and Family Medicine, University of Cape Town, South Africa

Dr Nguyen Thi Lien Huong (*unable to attend*), Director General, Health Environment Management Agency, Ministry of Health, Viet Nam

Intergovernmental organizations

United Nations Environment Programme

Mr Gamini Manuweera, Programme Management Officer, Knowledge and Risk Unit Economy Division, UN Environment Programme, Switzerland

Organization for Economic Co-operation and Development

Ms Patience Browne, Principal Administrator, Pesticide Programme, France

Ms Sylvie Poret, Principal Administrator, Biocide and Capacity-building Programmes, France

Ms Sally de Marcellus, Environment, Health and Safety Division, Environment Directorate, France

Mr Leon van der Wal, Administrator, Pesticide and Biocide Programmes, France

Observers

CropLife International

Mr Christoph Neumann, Vice-President, Regulatory Policy and Stewardship, Belgium

Mr Richard A. Brown, Carabid Life Sciences Consulting GmbH, Switzerland

AgroCare

Mr Hans Mattaar, Technical Director, Belgium **International Biocontrol Manufacturers Association**

Ms Roma Gwynn, Vice-President, Belgium

Pesticide Action Network

Ms Meriel Watts, Senior Science Advisor, PAN Asia Pacific, Malaysia

Mr Keith Tyrell, Director, United Kingdom

IPEN Pesticides Working Group

Mr Tadesse Amera, Co-Chair, Director of Pesticide Action Nexus Association, Ethiopia

Special observer (for this meeting only)

Mr Marcos Orellana, UN Special Rapporteur on Toxics and Human Rights, Professorial Lecturer in Law, George Washington University School of Law, United States of America

Observers as candidate JMPM Members

Ms Helena Casabona, Strategic Advisor, Development and International Affairs, Swedish Chemicals Agency, Sweden

Mr Bruno Cavalheiro Breitenbach, General Coordinator for Pesticides (Head), Plant Health Department, Ministry of Agriculture, Livestock and Food Supply, Brazil

FAO representation

FAO headquarters (JMPM Secretariat)

Mr Gu Baogen, Senior Agricultural Officer, Pest and Pesticide Management, FAO Plant Production and Protection Division, Italy

Ms Béatrice Grenier, Pest and Pesticide Management, FAO Plant Production and Protection Division, Italy

Ms Yang Yongzhen, Agricultural Officer (JMPPR), Pest and Pesticide Management, FAO Plant Production and Protection Division, Italy

Mr Buyung Hadi, Agricultural Officer (Integrated Pest Management), Pest and Pesticide Management, FAO Plant Production and Protection Division, Italy

Ms Christine Fuell, Senior Technical Officer, Rotterdam Secretariat Team leader, FAO Plant Production and Protection Division, Italy

Mr Mario Yarto, Rotterdam Secretariat, Agricultural Officer, FAO Plant Production and Protection Division, Italy

Ms Sarra Baccouri, Rotterdam Secretariat Team Secretariat, Agricultural Officer, FAO Plant Production and Protection Division, Italy

Ms Carmen Bullon, Legal Officer, FAO Legal Division, Italy

Mr Harold van der Valk, FAO consultant, Falconsult, The Netherlands

Ms Ivy Saunyama, Agricultural Officer, Pest and Pesticide Management, FAO Plant Production and Protection Division, Sub-regional Office for Southern Africa, Zimbabwe

Ms Kim Anh Tempelman, Agricultural Officer, Pest and Pesticide Management, FAO Plant Production and Protection Division, Italy

Ms Jane Bonds (invited speaker for agenda item on aerial application), FAO Consultant, United States of America

Mr Zhang Wenjun (invited speaker for agenda item on online sale), Researcher, Former Deputy Chief Agronomist, Institute for the Control of Agrochemicals, Ministry of Agriculture, China

FAO regional offices

Mr Yubak Dhoj GC, Senior Agricultural Officer (Crop Protection), FAO Regional Office for Asia and Pacific, Plant Production and Protection Division, Thailand

Mr Jean Baptiste Bahama, Plant Production and Protection Officer, FAO Regional Office for Africa, Plant Production and Protection Division, Ghana

Ms Tania Santivanez, Agricultural Officer, FAO Regional Office for Europe and Central Asia, Plant Production and Protection Division, Hungary

Mr Thaer Yaseen, Regional Plant Protection Officer, Regional Office for the Near East and North Africa Region, Egypt

Ms Ana Liusa Posas Guevara, Regional Plant Protection Officer, FAO Regional Office for Latin America and Caribbean, Chile

Mr Mikhail Malkov, FAO Liaison Government and Donors' Focal Point for Ukraine, FAO Office in Ukraine, Ukraine

WHO representation

WHO headquarters (JMPPM secretariat)

Mr Raman Velayudhan, Head, Veterinary Public Health, Vector Control and Environment Unit, Department of Control of Neglected Tropical Diseases, Switzerland

Mr Rajpal Yadav, Scientist, Veterinary Public Health, Vector Control and Environment Unit, Department of Control of Neglected Tropical Diseases, Switzerland

Mr Richard Brown, Technical Officer, Chemical Safety and Health Unit, Department of Environment, Climate Change and Health, Switzerland

Dr Alexandra Freischmann, Scientist, Department of Mental Health and Substance Use, Switzerland

Ms Jeannie Richards, WHO consultant (report-writer), France

WHO regional offices

Mr Haroldo Sergio da Silva Bezerra, Regional Entomologist, Department of Communicable Diseases and Environmental Determinants of Health, World Health Organization Regional Office for the Americas, United States of America

Ms Samira Al-Eryani, WHO Regional Office for the Eastern Mediterranean, Egypt

Mr Emmanuel Chanda, Technical Officer, WHO Regional Office for Africa, Congo


Mr Bhupender N. Nagpal, Technical Officer, WHO Regional Office for South-East Asia, India


Ms Tessa B. Knox (*unable to attend*), WHO Country Liaison Office, Vanuatu

Ms Amanda Murphy (*unable to attend*), Technical Officer, WHO Country Office, Fiji

Mr Elkhan Gasimov, Technical Officer (Malaria, Vector-borne and NTDs), Division of Country Health Programmes, WHO Regional Office for Europe, Denmark

Annex 2. Agenda adopted by the JMPM

Thursday, 14 October 2021 (13:00–17:00)	
<i>Open session</i>	
1. Opening and welcome remarks <ul style="list-style-type: none"> - Welcome (<i>WHO and FAO</i>) - Quick round of participants' introduction - Opening remarks (<i>WHO</i>) 	13:00–13:20
2. Appointment of Chairperson, Co-Chair and Rapporteurs 3. Adoption of agenda 4. Meeting procedure and working arrangements	
5. Summary of developments and actions taken since the 13th JMPM in 2020 <i>WHO (Rajpal Yadav/Richard Brown), FAO/Rotterdam Convention (Baogen Gu/Christine Fuell), and UNEP (Gamini Manuweera)</i> Note: This year, all other observers will be invited to provide their updates in written form (PPT or text) that will be circulated to JMPM and posted on the JMPM SharePoint platform	13:20–14:00
6. Review of new guidance documents under development	
a. Guidance on phase-out options and reducing risk during phase-out of pesticides <i>(Andrea Rother)</i>	14:00–14:30
b. Guidance on utilizing pesticide regulation to prevent suicides <i>(Michael Eddleston)</i>	14:30 –14:45
c. Guidance note on illegal trade of pesticides <i>(Beatrice Grenier)</i>	14:45–15:15
<i>Afternoon break</i> 	15:15–15:30
d. New guidance note on internet sales of pesticides <i>(Beatrice Grenier and invited speaker)</i>	15:30–16:15
7. Revision of existing guidelines (guidance)	
a. Guidance on aerial application of pesticides (2001) <i>(Beatrice Grenier and invited speaker)</i>	16:15–17:00

Friday, 15 October 2021 (13:00–16:30)	
7. Revision of existing guidelines (guidance) - continued	
b. Guidelines on data requirements for the registration of pesticides (2013) <i>(Harold van der Valk)</i>	13:00–13:30
8. Planning development of new guidance and review of existing guidelines (and related issues) – Review and prioritization process <i>(cf. List of FAO/WHO Code of Conduct guidelines)</i>	13:30–14:15
a. Proposals for new guidance and revision of existing guidelines	
b. Prioritization and next steps	
c. How to promote the use of guidance documents	
9. Priority and emerging issues in pesticide management, including gaps, challenges and future directions of FAO and WHO	
a. Highly hazardous pesticides – presentation of the revised draft Action Plan <i>(Baogen Gu)</i>	14:15–14:45
b. Information on the UNEP/FAO/WHO report on impacts of pesticides and fertilizers <i>(Gamini Manuweera)</i>	
c. Other issues <i>(to be identified through advance contributions by JMPM members and observers)</i>	
<i>Afternoon break</i> 	<i>14:45–15:00</i>
10. Revision of the International Code of Conduct on Pesticide Management (2014)	
a. Approach and process	15:00–16:00
b. Review and discussion on topics for revisions	
11. Any other issues	16:00–16:15
12. Dates and place of JMPM meetings in 2022 <i>(including dates of intersessional meetings)</i>	16:15–16:20
13. Closing <i>Chair, Baogen Gu (FAO) and Rajpal Yadav (WHO, as host)</i>	16:20–16:30

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