REPORT

3RD FAO/WHO JOINT MEETING ON PESTICIDE MANAGEMENT

and

5TH SESSION OF THE FAO PANEL OF EXPERTS ON PESTICIDE MANAGEMENT

6 – 9 October 2009
Rome

Food and Agriculture Organization of the United Nations

World Health Organization

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Annexes

Abbreviations

AGP	Plant Production and Protection Division
COAG	Committee on Agriculture
CCPR	Codex Committee on Pesticide Residues
CIEN	Chemicals Information Exchange Network
CRC	Chemical review Committee
CSD	UN Commission on Sustainable Development
DNA	Designated National Authority
EC	European Commission
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HHP	Highly Hazardous Pesticide
ICAMA	Institute for the Control of Agrochemicals, Ministry of Agriculture of China
ICCM	International Conference on Chemicals Management
ICSC	International Chemical Safety Card
IGO	Inter-governmental Organization
(I)PCS	(International) Programme on Chemical Safety
IPM	Integrated Pest Management
JMPM	FAO/WHO Joint Meeting on Pesticide Management
JMPR	FAO/WHO Joint Meeting on Pesticide Residues
JMPS	FAO/WHO Joint Meeting on Pesticide Specifications
MRL	Maximum Residue Limit
NGO	Non-governmental Organization
PHP	Public Health Pesticide
QSP	Quick Start Programme
SAICM	Strategic Approach to International Chemicals Management
SDS	Safety Data Sheet
SHPF	Severely Hazardous Pesticide Formulation
TCE	Emergency Operations and Rehabilitation Division
TCP	Technical Cooperation Programme
UN	United Nations
UNEP	United Nations Environment Programme
WHO	World Health Organization
WHOPES	World Health Organization Pesticide Evaluation Scheme
WTO	World Trade Organization

1. Introduction

The 3rd FAO/WHO Joint Meeting on Pesticide Management (JMPM) and the 5th Session of the FAO Panel of Experts on Pesticide Management, were held at FAO Headquarters in Rome, from 6 to 9 October 2009.

The FAO Panel of Experts on Pesticide Management is the official statutory body that advises the Organization on matters pertaining to pesticide regulation and management, and alerts it to new developments, problems or issues that otherwise merit attention. The Panel in particular counsels FAO on the further implementation of the revised version of the *International Code of Conduct on the Distribution and Use of Pesticides*[1] (hereinafter "the Code of Conduct"). Members of the WHO Panel of Experts are drawn from the WHO Panel of Experts on Vector Biology and Control, or are academic or government experts invited to advise the Organization on policies, guidelines and key actions to support Member States on sound management of pesticides.

Panel members invited to this meeting have been selected for their personal expertise and experience in specific aspects of pesticide management, both in agriculture and in public health, and do not represent the position of governments or institutions they may belong to. They are appointed in their personal capacity by either FAO or WHO. Both WHO and FAO Panel members are requested to declare any interests they may have which could affect their opinion or advice.

In addition to Panel members, representatives from other Inter-Governmental Organizations (IGOs), pesticide industry and Non-Governmental Organizations (NGOs) also attended the meeting as observers.

Mr Mark Davis, Senior Officer Pesticide Management (a.i.) of FAO, welcomed all participants to the 3rd Session of the JMPM. He indicated that four new members of the FAO Panel of Experts on Pesticide Management would participate in this meeting for the first time: Mr Amadou Diarra, Mr David Kapindula, Mr Eric Liégeois and Ms Kimberly Nesci. Three former FAO Panel members had agreed to continue to serve on the Panel to ensure continuity of the work.

Mr Morteza Zaim, Scientist, WHO Pesticide Evaluation Scheme (WHOPES) welcomed all participants on behalf of WHO. He recalled that the JMPM was one of the outcomes of a Memorandum of Understanding signed between FAO and WHO in early 2007, to strengthen collaboration on pesticide management in general, and the implementation of the Code of Conduct in particular. Mr Zaim noted that while the Code of Conduct had not been endorsed by the World Health Assembly, WHO is highly committed to its implementation in the health sector. He expressed his hopes that the Code of Conduct could in the near future become a joint publication of FAO and WHO.

All participants in the meeting are listed in Annex 1.

[1] http://www.fao.org/agriculture/crops/core-themes/theme/pests/pm/code/en/

2. Opening of the meeting

Mr Peter Kenmore, Deputy Director of the Plant Production and Protection Division of FAO, noted in his opening address that this was already the 3rd joint meeting between FAO and WHO on pesticide management and expressed his delight at the consolidated collaboration between the two organizations. He recalled the long history of expert meetings on pesticide management at FAO, going back at least three decades, and the importance of the Code of Conduct as a guiding document.

Mr Kenmore remarked that the Code of Conduct was one of the oldest international agreements on chemicals management, which had been unanimously adopted by all FAO member countries and was actively supported by pesticide industry and civil society. And while the shape of farming, industry and civil society had changed considerably over the last 25 years, continuous collaboration between stakeholders, and broad discussions like in this meeting, had allowed the implementation of the Code of Conduct to be adapted and sustained.

With chemicals management now being at the height of international interest, through initiatives like the Strategic Approach to International Chemicals Management (SAICM), the UN Commission on Sustainable Development (CSD), and the joint extraordinary Conference of Parties of the Basel, Rotterdam and Stockholm Conventions, the Deputy Director stressed the importance of the Code of Conduct as longstanding example of international, inter-sector and inter-stakeholder collaboration. Lessons learned from strengthening pesticide management should therefore be taken into account when developing initiatives in general chemicals management and FAO and WHO have an important role to play in this process.

While recognizing the importance of continuing synergies and collaboration between international programmes, Mr Kenmore noted that the actual work on improving and strengthening the management of pesticides needed to be done on the ground, in the countries. Millions of people in the world need sound pesticide management to increase agricultural production, reduce the impact of vector-borne diseases and limit adverse effects of these chemicals on human health and the environment.

The Deputy Director informed the meeting that by 2050, the world needs to double food production, and this mainly in developing countries. He stressed that the required increase in food production would not automatically imply an increase in the use of agrochemicals, and that FAO had shown in all major crops and in different regions of the world that production intensification could be achieved even with less dependence on chemicals such as pesticides. However, this requires smarter farming based on a better understanding of biological and agricultural systems, where agrochemicals are not eliminated but are used more effectively and with less adverse impact.

Mr Kenmore also noted that the control of vector-borne diseases remains a major problem in large parts of the world. He remarked that the last few decades has seen a great increased understanding of the dynamics of disease vectors, however, which is leading to more effective vector control and much more precise use of pesticides.

Given the many challenges we are facing in pesticide management, Mr Kenmore strongly emphasized the need for the JMPM to focus on the big picture. He invited the participants to keep remembering that their advice should lead to practical solutions in the field, and called upon the meeting to remain pragmatic and not to get caught in details.

Finally, the Deputy Director, after encouraging the participants to have a successful meeting, declared the 3rd FAO/WHO Joint Meeting on Pesticide Management open.

3. Election of the chairperson and rapporteurs

Mr Gary Whitfield was elected Chairperson of the meeting, and Mr Gu Baogen and Ms Sandhya Kulshrestha were appointed rapporteurs.

4. Adoption of the agenda

A number of amendments were proposed to the provisional agenda:

- inclusion of a proposal for amendments to the *guideline drafting procedure*, under item 10;
- presentation of the status of development of the *Guidelines on pesticide legislation* under item 12 instead of item 11;
- inclusion of the status of development of the *Guidelines on pesticide advertising*, and the *Guidelines for the registration of pesticide*s, under item 12;
- inclusion of a presentation from the FAO regional plant protection officers on feedback regarding pesticide management in the field, under item 13.

Two closed sessions were held as part of the JMPM, in which only Panel members but not observers participated: one at the start of the meeting to discuss, amongst other, terms of reference of the JMPM and the guidelines drafting procedure, and a second session at the end of the meeting to discuss the recommendations.

The definitive agenda was adopted as shown in Annex 2.

5. Terms of reference

FAO and WHO presented the terms of reference of the JMPM, so that its members are aware of their tasks and responsibilities. It was stressed that, although members are appointed to either the FAO or the WHO Panel of Experts, they are explicitly invited to advise both organizations, and should not limit their activities to the organization which appointed them. The terms of reference of the JMPM are provided in Annex 3.

Because of the important role that observers to the JMPM have in the discussions and the work of the meeting, the Panel members felt it was appropriate to elaborate terms of reference for these participants as well. The JMPM therefore recommended that terms of reference

should be drafted for observers to the JMPM, and circulated to the JMPM for comments. FAO and WHO were requested to provide such terms of reference for the observers in advance of the next Session.

6. Developments since the previous session of the JMPM

A brief summary was presented of some important developments with respect to pesticide management that had taken place since the 2nd Session of the JMPM in October 2008.

6.1 WHO

Chemical Safety

WHO Chemical Safety has been engaged in various activities relating to pesticide management since the previous meeting, including:

- improvement of capacity for collecting data on exposure to severely hazardous pesticide formulations, and for notification of such exposure to the Rotterdam Convention Secretariat, in Ghana and Tanzania;
- continuation of the development of International Chemical Safety Cards (ICSCs), which summarize essential product identity data and health and safety information on pure chemicals for use by workers, employers and the public at large. Approximately 150 ICSCs on pesticides are available via the International Programme on Chemical Safety (IPCS) web page[2]. WHO is starting to add classifications according to the Globally Harmonized System on Classification and Labelling of Chemicals (GHS) to ICSCs as they are developed or updated;
- re-evaluation of the use of DDT in indoor residual spraying for malaria prevention. This project is on track for completion in the first half of 2010. The draft hazard assessment was released for public and peer review in early 2009 and was the subject of an expert meeting 2-4 June 2009, in Geneva. A similar process is being followed for the exposure assessment which was released for public and peer review in August 2009. The expert meeting will take place in December 2009. The final risk assessment meeting is anticipated to take place in the first half of 2010;
- a project to raise awareness and promote actions to address health issues related to highly hazardous pesticides (HHPs) (Class Ia and Ib), as well as nine other chemicals of major public health concern (See Chapter 7);
- updating the WHO Recommended Classification of Pesticides by Hazard[3] (See Chapter 7);
- development of a Risk Assessment Toolkit (See Chapter 7).

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[2] http://www.who.int/ipcs/publications/icsc/en/index.html

[3] *The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification* (2004). http://www.who.int/ipcs/publications/pesticides_hazard/en/

Evidence, Research and Action on Mental and Brain Disorders

The WHO Team of Evidence, Research and Action on Mental and Brain Disorders has been engaged in activities on preventing intentional and unintentional deaths from pesticide poisoning and is implementing three feasibility demonstration projects in China, India and Sri Lanka. These are: (1) China: community educational intervention to reduce self-poisoning with pesticides; (2) India: centralized communal storage of pesticides to prevent suicide in rural areas; and (3) Sri Lanka: secure storage of pesticides to prevent suicide in Sri Lanka. The Programme has also published the document *Clinical management of acute pesticide intoxication - prevention of suicidal behaviours*[4].

WHOPES

The WHO Pesticide Evaluation Scheme (WHOPES) organized or participated in several major meetings and events since previous JMPM meeting held in WHO/HQ, Geneva, October 2008. These were:

- *First Intercountry Meeting of National Vector Control Focal Points*, Amman, Jordan, 4-6 November 2008. The meeting was attended by representatives of 18 Member States. The meeting identified challenges, constraints and opportunities to implement integrated vector management in countries, as well as actions for sound management of public health pesticides;
- *Workshop on Risk Assessment in Area of Pesticide Residues*, organized by the Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA) – the pesticide registration authority of China – held in Beijing, 27-29 April 2009. Data requirements and procedures for toxicological and risk assessment of pesticides were presented at the meeting and estimation as well as development of the maximum pesticide residue limits in food and animal feed were discussed;
- *International Public Health Pesticides Workshop*, 19-21 May 2009, a joint initiative by US EPA and Chartered Institute of Environmental Health, UK, in which new approaches and strategies for development of new public health pesticides were discussed and possibility of conducting joint review of new public health pesticide products were investigated;
- the *8th FAO/WHO Joint Meeting on Pesticides Specifications* (JMPS), El Salvador 3-8 June 2009, in which data package of 17 manufacturers for development of FAO and WHO specifications were reviewed. The meeting also considered several proposed amendments to the *Manual on development and use of FAO and WHO specifications for pesticides*, including tiered approach to determination of equivalence. In addition, new options for sustainable financing the work on pesticide specifications are being explored;
- *WHO Consultation on Development of Generic Risk Assessment Models for Application of Pesticides in Public Health*, Finnish Institute of Occupational Health, 23-25 June, Helsinki, Finland, in which the outcome of peer review of three draft WHO generic risk assessment models were reviewed and actions for their finalizations were recommended. These were: 1) generic risk assessment model for indoor and outdoor space spraying; 2) generic risk assessment model for indoor residual spraying; and 3) generic risk assessment model for larviciding;

[4] http://www.who.int/mental_health/resources/suicide/en/index.html.

- second Meeting of the Regional Scientific and Technical Advisory Committee of the EMR/GEF Supported Project, Cairo, Egypt, 1-3 July 2009. The meeting reviewed the individual country activities related to the five-year project entitled: *Demonstration of sustainable alternatives to DDT and strengthening of vector control capabilities in Middle East and North Africa*. The Project is implemented by WHO Regional Office for the Eastern Mediterranean (WHO/EMRO) and United Nations Environment Programme (UNEP), in collaboration with FAO and with financial support from the Global Environmental Facility (GEF). The participating countries are: Arab Republic, Djibouti, Egypt, Jordan, Islamic Republic of Iran, Morocco, Sudan, Syrian and Yemen;
- *International Public Health Pesticides Workshop - An Examination of the Barriers and Possible Solutions for Bringing New Public Health Pesticide Products to Market in Developing Countries*, 29 September to 1 October 2009, organized by the Stockholm Convention Secretariat, in which main obstacles and issues related to regulation of public health pesticides were identified and investment incentives to develop new public health pesticide tools were recommended. The meeting also examined the capacity required to undertake joint review/assessment of public health pesticides and proposed actions for a test case.

Since the previous JMPS meeting, WHOPES also has completed the testing and evaluation of eight pesticide products: six long-lasting insecticidal mosquito nets for malaria prevention and control, and a bacterial formulation for mosquito larviciding. The reports of the WHOPES Working Group Meetings, an advisory group to the Scheme, provide a critical review of existing literature as well as studies organized and supervised by WHOPES. The reports have been widely distributed among national control programmes, registration authorities and other stakeholders and are intended to facilitate their registration and use by the Member States.

Through the grants provided to WHO by the Bill and Melinda Gates Foundation for reduction of health risks through sound management of pesticides, WHOPES has supported seven countries in situation analysis and needs assessment for management of public health pesticides, through an inter-sector and multi-stakeholder approach, following WHO guidelines. WHOPES has also conducted five workshops on development of pesticide specifications, including principles of equivalence determination, and has assessed the capacity of four national quality control laboratories. There are 12 priority countries participating in this project and the same activities are planned to be carried out in the remaining countries in the next 18 months.

6.2 UNEP

Most of the activities by UNEP in the field of chemicals management are carried out within the general framework of SAICM.

Mercury

UNEP has received agreement from its Governing Council to go ahead with negotiations that should lead to the establishment of a Mercury Convention.

Mainstreaming and information exchange

An important activity carried out in various countries is the mainstreaming of chemicals management in national development strategies and plans, with the aim to ensure minimum resources both from national budgets and from donors. Furthermore, the Chemicals Information and Exchange Network (CIEN), which is now active in about 50 countries mostly in Africa, is being extended to Asia and Latin America. CIEN focuses on information exchange on all aspects of chemicals management between various stakeholders.

UNEP is also in the process of producing a *Chemicals Outlook*, containing the status and statistics of chemicals and their management in different regions, which could become an important tool to assess progress in chemicals management. The first draft of this *Chemicals Outlook* should be available in early 2010.

Furthermore, UNEP and WHO intend to elaborate an update of the Global Assessment of the State-of-the-Science of Endocrine Disruptors, originally published by the International Programme on Chemical Safety in 2002.

Chemicals in products

A new programme has been initiated to better evaluate and manage chemicals in products. While evaluation, classification and labelling of individual chemicals is dealt with by such instruments as the GHS, as soon as a chemical becomes part of a (non-chemical) product, information provision on such a chemical tends to "disappear" and may not be available anymore to regulators and the public. Examples are impregnated textiles or consumer electronics. UNEP has started a research project on chemicals in products and will report to the next International Conference on Chemicals Management (ICCM) about this issue.

Separate from the above-mentioned initiative, but dealing with a similar problem, is a joint WHO/UNEP, funded by the SAICM Quick Start Programme (QSP), to assess options for the collection, recycling and/or disposal of used long-lasting insecticide-impregnated mosquito nets, which contain low levels of insecticides.

Pesticides

UNEP and WHO have jointly developed a CD-based *Resource Tool on the Sound Management of Pesticides and Diagnosis and Treatment of Pesticide Poisoning.* The tool is intended to assist national staff in diagnosis and treatment of pesticide poisoning, and for use in the formulation of training courses[5]. A new training tool, *Toxicology in the Classroom*, is presently being developed to raise awareness among school children about potential adverse effects of chemicals and help reduce careless use of pesticides.

Furthermore, a *Brainstorming Meeting on environmental and other factors needed for evaluating and managing risks posed by pesticides at local level*, was organized in Geneva from 1-3 July 2009. In evaluating the potential risks of pesticides prior to authorizing their use, many developing countries rely almost solely on internationally available hazard and risk assessments and have little capacity to make locally based risk management decisions. The purpose of the meeting was to identify what elements are needed for locally based decision making and to identify possible ways of meeting these needs. The meeting recommended,

[5] http://www.chem.unep.ch/Pesticides/PesticideResourceTool/default.htm

among others, that UNEP establish an environmental expert group and develop simplified environmental risk assessment models for conditions encountered in many developing countries[6].

6.3 FAO

Internal restructuring

In the previous session of the JMPM, FAO reported about changes in the structure of its Plant Production and Protection Division (AGP), and their implications for pesticide management activities. Since then, FAO as a whole has been going through further restructuring which will lead to the consolidation of activities related to pesticide risk reduction and those of the Rotterdam Convention, in one single organizational result under the Organisation's Strategic Objective *A – Sustainable intensification of crop production*. In addition, pesticide management activities will also contribute to objectives such as *Improved safety and quality of food, Sustainable management of land water and genetic resources, Improved food security and better nutrition*, among others.

The expected results of the unit within the AGP Division focusing on pesticide risk reduction are:

- technical guidelines, policy guidance, international standards and regulatory information on pesticides are developed and made available to countries;
- national and regional capacity for pesticide management is enhanced;
- guidance to assist countries in identifying capacity building needs for improving the life-cycle management of pesticides is provided;
- measures, programmes and projects are developed and promoted to enhance integrated approaches and cooperation on pest and pesticide management programmes at the national and regional levels.

Pesticide residues

The 41st Session of the Codex Committee on Pesticide Residues (CCPR) was held in April 2009, in Beijing. It prepared 281 new and revised MRLs for final adoption, and 29 MRL for provisional adoption. Some issues that were also discussed include improving the transparency of the MRL estimation process of the FAO/WHO Joint Meeting on Pesticide Residues (JMPR), the development of guidance to facilitate the establishment of Codex MRLs for minor uses and speciality crops, and JMPR recommendations on MRLs established a priori by national or regional authorities.

The JMPR held its 2009 session in September in Geneva, in which 24 pesticides were evaluated and over 400 MRLs recommended[7]. The meeting also approved the second edition of the *FAO Manual on the submission and evaluation of pesticide residues data for the estimation of maximum residue levels in food and feed*. Furthermore, the FAO/WHO-PCS

[6] http://www.chem.unep.ch/Pesticides/RiskAssessmentWorkshop/default.htm

[7] Reports of the JMPR , and supporting documentation, are available at: http://www.fao.org/agriculture/crops/core-themes/theme/pests/pm/jmpr/en/

project to update the principles and methods for the risk assessment of chemicals in food is still ongoing.

Pesticide specifications

See Chapter 6.1.

Rotterdam Convention

The number of Parties to the *Rotterdam Convention on the prior informed consent (PIC) procedure for certain hazardous chemicals and pesticides in international trade* (Rotterdam Convention) continues to increase and now stands at 130. National implementation plans for the provisions of the Convention have been developed for 52 countries, and is ongoing.

The Chemical Review Committee (CRC) of the Convention again recommended, in March 2009, the inclusion of endosulfan into Annex III. The CRC is scheduled to consider three new pesticides (amitraz, azinphos methyl and methyl bromide) in its 2010 meeting, as well as additional notifications and a draft Decision Guidance Document on endosulfan.

The 4th Conference of Parties, held in October 2009, confirmed the inclusion of tributyltin oxide into Annex III.

FAO field projects

The previous session of the JMPM strongly emphasized the need for pesticide management activities to be carried out in countries, for them to be effective in reducing risks and increasing efficacy. FAO presented a comprehensive list of projects and programmes which are either in advanced stages of development or operational at the country level. They cover such issues as prevention and disposal of obsolete stocks, remediation of pesticide contaminated soils, pesticide stock management, support to pesticide quality control, pesticide residue monitoring, capacity building on various aspects of pesticide management and regulation, integrated pest management, pesticide risk reduction, etc.

Pesticide procurement

The FAO Emergency Operations and Rehabilitation Division (TCE) sometimes procures limited quantities of pesticides for its member countries, for instance under emergency assistance for food security or transboundary pests. Recent food security crises have seen an increase in requests for agrochemicals including pesticides. However, FAO keeps a close watch on such requests, to ensure not to supply pesticides which are inappropriate or in excess of real needs, that the principles of the Code of Conduct are respected, and that products are in compliance with national and international standards.

Promotion and implementation of the Code of Conduct

Since the previous session of the JMPM, the Code of Conduct has been published in Russian, to accommodate several new FAO members from Central Asia and Eastern Europe. The FAO web site on the Code of Conduct was updated, to facilitate access to guidelines. Also, the *Guidelines on developing a reporting system for health and environmental incidents resulting from exposure to pesticides*, discussed and endorsed by the previous session of the JMPM, were published in August 2009.

Finally, the University of Cape Town, in close collaboration with FAO, is in advanced stages of development of a post-graduate diploma/MSc course in pesticides management. The course will be provided to a large extent as a distance learning exercise. It aims to raise capacity in pesticide management and in registration dossier evaluation, and in the first instance will focus on Africa.

7. Highly hazardous pesticides

After recalling a number of the recommendations made during the last session of the JMPM with respect to reducing risks of HHP, three presentations were made on activities that have been carried out to initiate implementations of these recommendations.

7.1 WHO

The WHO Recommended Classification of Pesticides by Hazard

The *WHO Recommended Classification of Pesticides by Hazard* was first published in 1975, and has been updated periodically since that time. The guidelines for classification were established by the World Health Assembly. The WHO Classification is based primarily on the acute oral or dermal toxicity of the pesticide. However, it has always been a feature of the WHO Classification scheme that the classification of any pesticide could be adjusted to take account of effects other than acute toxicity. Examples could include pesticides causing irreversible damage to vital organs, carcinogenicity or other particularly hazardous effects, especially effects identified after direct observation in humans.

Since 2002 the GHS has become available for use. A number of stakeholders have requested that the WHO Classification be amended in line with the agreed GHS criteria. It needs to be recognized that while the WHO criteria for classification according to acute toxicity can be aligned with the GHS hazard categories for acute toxicity, the WHO Classification will retain adjusted classifications to take account of severe hazards other than acute toxicity, in accordance with the World Health Assembly Resolution. It was noted by the WHO representative that since the WHO Classification takes into account a wider range of endpoints than the GHS acute toxicity hazard categories, it represents a broader basis for classification, and can be considered a "composite" hazard classification reflecting both acute and chronic hazard.

In the latest revision of the WHO Classification (scheduled for completion by the end of 2009) the GHS hazard categories for acute toxicity are now being used as the starting point for the classification decision. This will cover most pesticides, where an adjusted classification is not necessary due to more severe hazards. In practice, few pesticides will be allocated to a different WHO hazard class as a result of this change, especially among the pesticides in the highest toxicity classes (Ia – extremely hazardous and Ib – highly hazardous). The GHS acute toxicity hazard category for each pesticide will now also be presented in the document as new information.

Revision of the document to incorporate new and amended entries is being given priority at this time. Following publication of the 2009 revision, the feasibility of evaluating pesticides against additional GHS health hazard criteria will be explored. An initial exercise utilizing JMPR evaluations of pesticides is planned. However, it is not clear whether the peer-reviewed WHO reports that are used to classify the pesticides provide the necessary information to allocate pesticides to the various different health hazard categories within the GHS. For example, the available information on carcinogenicity may not be sufficient to separate substances according to the GHS Category 1 or Category 2 criteria for this endpoint. Full incorporation of GHS criteria may not therefore be possible. However, the classification of pesticides will continue to be adjusted in the existing WHO Classification when severe hazards other than acute toxicity are identified. In addition, classification information for many pesticides against GHS criteria is now freely available from public sources (for example from the European Commission (EC)) and duplication of effort needs to be avoided.

Development of a risk assessment toolkit

The meeting was also informed that a Risk Assessment Toolkit is being developed by WHO Chemical Safety with the aim of making international chemical risk assessment methodologies and information more readily accessible to countries, especially to developing countries. The Toolkit consists of generic roadmaps for various stages in chemical risk assessment and links to risk assessment material developed by international organizations. These materials are supported by case studies, including case-specific road maps. The Toolkit can be utilized in the risk assessment of HHPs. One of the case studies illustrates the use of the Toolkit to assist in gathering the information necessary to propose listing of a pesticide under Article 5 of the Rotterdam Convention. The use of this Toolkit could potentially improve the quality of information on HHPs provided by developing countries to meet the requirements of international agreements. It is planned to have the first version of the Toolkit ready for use by early 2010.

Health issues related to ten chemicals of major public health concern

Furthermore, a project had been initiated to raise awareness and promote actions to address health issues related to HHPs (WHO Class Ia and Ib), as well as 9 other chemicals of major public health concern. A short information document on HHPs targeted at decision makers will be developed and reviewed during an expert meeting. In addition, a compilation of the most relevant WHO material related to: a) risk assessment; b) burden of disease; c) norms and guidance values; d) tools for action; and e) education material, will be prepared. Outcomes of this project will be made publicly available in 2010, including a website containing the short information documents and the compilation of most relevant WHO material. Relevant advocacy and communication material will also be prepared and disseminated as appropriate.

7.2 Rotterdam Convention

The Rotterdam Convention under its Article 6 provides an opportunity to developing countries and those with economies in transition to propose a severely hazardous pesticide formulation (SHPF). An SHPF is defined as “a chemical formulated for pesticidal use that produces severe health or environmental effects observable within a short period of time after single or multiple exposure, under conditions of use”.

Countries which experience health or environmental problems with a specific pesticide formulation, under conditions of use (intentional misuse is excluded), can through the Designated National Authority (DNA), submit this formulation for attention of the Convention. An important provision of the Convention is that if incidents took place as a result of "common or recognized patterns of use", this is an acceptable reason, even if this use does not appear in the label. Furthermore, the existence of handling or applicator restrictions (e.g. on the label) is not a reason for refusal of a submission if it is clear that such restrictions may not be reasonably or widely applied in countries lacking the necessary infrastructure.

If certain documentation requirements are met, the Convention will publish a summary of this submission in the PIC circular, as a means of alerting other Parties. In addition, the CRC of the Convention will consider the submission and may recommend inclusion into Annex III.

While the SHPF procedure is a powerful tool to increase awareness and generate information about pesticide formulations that cause severe health and environmental effects under real use conditions, only one SHPF has been proposed to the Convention so far. Various reasons have been identified for this, including insufficient legal/policy framework in support of collection of pesticide incident data; lack of documentation of poisoning incidents in medical services; insufficient communication between the DNA and pesticide users in the field; and a lack of political will to submit proposals to the Convention. In addition, DNAs may have limited knowledge on the procedure to submit proposals, and a relatively high turnover of DNAs negates previous training efforts.

Recognizing these constraints, the Convention has initiated the development of a monitoring programme on SHPFs, with the overall objective to support countries in improving capacities for the collection of information about health problems caused by SHPF under the conditions of use in order to assist countries to submit proposals under the Rotterdam Convention. Options being assessed are the use of community monitoring to identify SHPFs at the grassroots level, and active collaboration with doctors and nurses to improve diagnosis and reporting of pesticide poisoning, among others. A broader programme on SHPFs is being developed by the Secretariat, which will establish links between individual activities, such as the FAO programme on HHPs, WHO's work on poison centres and the work under the Rotterdam Convention.

7.3 FAO

The meeting was presented with a pilot project on risk reduction by HHPs in Mozambique, developed by FAO in close collaboration with the national registrar of pesticides and the environment authorities, and to be submitted to the SAICM QSP.

The aim of the project is to apply a number of the recommendations on HHPs made by the JMPM in previous sessions to a specific national situation. The project follows a step-wise approach in which first pesticides and their uses are evaluated against the HHP criteria set by the JMPM, to identify which pesticides might be considered highly hazardous under local circumstances. It is recognized that the identification of HHPs will be country-specific, as the risks that pesticides may pose will differ depending on the national/local situation. It will often not be straightforward to simply prohibit HHPs, as either agriculture or vector control may depend on them. Furthermore, simply replacing chemicals by chemicals may not be the optimal solution to reduce risks either, and the project intends to bring together national

agronomic and vector control experts to assess feasible alternatives to HHP use, either chemical or non-chemical. On the basis of these assessments, plans of action can be drawn up on how to replace specific HHPs, in which the highest risks would be addressed first (in particular if resources are limited).

FAO envisages carrying out such pilot projects in a limited number of countries, to gain experience and distil best practices. On the basis of the results of the pilot projects, and if the approach is effective, more generic guidance would then be elaborated that could be used by other countries.

7.4 Discussion

The JMPM discussed the presentations made on different ongoing activities with respect to the implementation of previous recommendations made on the reduction of risks posed by HHPs.

With respect to the WHO *Classification of Pesticides by Hazard*, several participants underlined the importance of this classification for pesticide registrars, while at the same time recognizing that the GHS needed to be implemented in many countries as well. The JMPM therefore reiterated its previous observations of the problems faced by many countries in classifying pesticides based on different classification systems during registration.

The JMPM took note of the work being undertaken by the WHO PCS on harmonizing the WHO Classification with the GHS. The JMPM commended WHO/PCS for applying the GHS criteria for acute toxicity to the new revision of the WHO Classification. The JMPM took note of the constraints in taking into account the GHS criteria for chronic hazards, which relate to the absence of a mandate at WHO for classification of such hazards, the limited resources available for such a large task, and the lack of appropriate data required to classify all pesticides. As far as the latter constraint was concerned, however, it was suggested that sufficient data would probably be available to classify the highly hazardous classes from the GHS, which would respond to the immediate need to initiate risk reduction activities for HHPs.

At the same time, the meeting discussions remarked that if WHO could not classify pesticides according to all GHS health criteria, and UNEP could not classify environmental hazards, national registration authorities would still need to do so themselves, even though scientific and human capacity would generally be insufficient. The JMPM took note of efforts to classify chemicals according to GHS criteria for the International Chemical Safety Cards, which so far included about 150 pesticides.

Taking into account the above, and reiterating the importance of first considering the health aspects of the GHS classification, the meeting recommended that WHO make a proposal by the time of the next session of the JMPM on the future inclusion of these elements into the WHO Classification, with priority for carcinogenic, mutagenic and reproductive toxic pesticides.

With respect to the pilot project on risk reduction of HHPs in Mozambique, the JMPM considered that it is important to gain experience in the management of HHPs. Participants made a number of suggestions to strengthen similar projects. This included ensuring that all relevant stakeholders be involved in the execution of the project, clearly defining expected

outcomes and indicators, and explicitly assessing national interests in using or discontinuing the use of specific HHPs. The JMPM also noted that adverse incident reporting was not included in the project and recommended that the recently published guideline on this topic be used.

The meeting emphasized the continued need to coordinate activities on HHPs between international organisations and instruments, for instance by implementing these projects in such a way that they support the provisions of the Rotterdam Convention on SHPFs. The JMPM welcomed the interest shown by WHO and UNEP in collaborating in these type of projects. Since resources provided through mechanisms such as the SAICM QSP or the FAO Technical Cooperation Programme (TCP) are generally limited, collaboration through the establishment of complementary but integrated projects for the same country on different aspects of HHP risk reduction might be considered.

The JMPM further recommended that more pilot projects of this nature should be developed to identify best practices and reduce risks of HHPs in other countries.

8. Monitoring implementation of the Code of Conduct

8.1 FAO survey

Under Article 12 of Code of Conduct, all stakeholders are invited to monitor and report on implementation of the Code of Conduct. Other provisions call upon governments and industry to collect and report on various types of information relating to pesticides. In 2006, FAO published the *Guidelines on Monitoring and Observance of the Code of Conduct*, which is designed to provide a user-friendly approach to participate effectively in monitoring observance under the revised Code of Conduct. As part of the guidelines, a questionnaire was designed, the *Regular Monitoring Report*.

In July 2008, these guidelines were sent to all 193 FAO members with the request to complete the *Regular monitoring report*. The request was sent to FAO official contact points (generally ministries responsible for agriculture), but since pesticide management as addressed by the Code of Conduct also concerns activities beyond the field of agriculture, respondents were explicitly invited to obtain inputs from other relevant government offices, in particular those responsible for public health, environment, industry and trade. The initial response period of three months was extended with one month to allow more time for submitting the questionnaire.

The results of the questionnaire were analysed on the basis of country income groups as defined by the World Bank. The rationale behind this is that it can be expected that the degree to which pesticide management in a country positively responds to the provisions of the Code of Conduct will to a large extend be determined by available financial and human resources. Also, whenever possible, the results of the questionnaire were compared with previous surveys carried out by FAO in 1986 and 1992.

In total, 39 nations and the EC replied to the questionnaire, out of 193 members, an overall response rate of 21 percent, which was considerably lower than for the previous surveys. As a result of this low response rate, a certain bias in the results of the present questionnaire cannot be excluded. In spite of the explicit request to respondents to implicate all government entities responsible for pesticide management in the country in the completion of the questionnaire, the results of the questionnaire to a large extent refer to agricultural pesticides and to a much lesser extent to other pesticide uses.

In spite of these limitations, a number of general conclusions could be drawn regarding the results:

- there appears to be a very clear gap in the effective implementation of many provisions of the Code of Conduct between lower income (or developing) countries and higher income (or developed) countries, with lower income countries still lagging behind considerably;
- since 1993, progress in strengthening pesticide management in lower income countries appears to have been made in some areas, including the establishment of poison centres, data collection on pesticide import and control, pesticide labelling and storage;
- however, little progress appears to have been made over the last 15 years in other areas of sound pesticide management in lower income countries, such as: effective implementation of Integrated Pest Management (IPM) and resistance management, pesticide quality, access to quality control facilities, availability of less hazardous products on the market, collection and disposal of empty pesticide containers, or post-registration health and environmental monitoring;
- there seems to be a remarkable convergence of opinion, across regions, with respect to priority areas for strengthening of pesticide management in lower income countries. These include: capacity building of staff, establishment of post-registration monitoring systems and laboratory facilities, management of obsolete pesticides and empty containers, the development and promotion of IPM, and raising awareness of stakeholders.

The JMPM discussed the outcome of the survey and considered it an important tool to evaluate the progress made in implementation of the Code of Conduct and identify priorities for strengthening pesticide management. The meeting regretted the low response rate and made a number of suggestions for improvement, such as better targeting of the respondents and more intensive use of regional or local staff in follow-up. It was also suggested a debrief for the responding countries on the results of the survey.

Furthermore, JMPM recommended the development of a self-assessment tool for use by national programmes, and the identification of indicators that can be used by countries to monitor the status of national implementation of the Code of Conduct.

8.2 WHO survey

The meeting was informed that sound management of public health pesticides (PHPs) has become a priority, particularly in view of the depleting resource of less hazardous, effective and affordable products. From the previous studies and experience it is known that the capacity to manage PHPs in disease endemic countries is inadequate. The international community and WHO are supporting countries to build that capacity, including strengthening the capacity for registration of public health pesticide products as a first and a critical step in management of pesticides. Demand for improving availability of new pesticide products is on the rise. Work sharing, information exchange and harmonizing requirements and procedures to shorten time taken to access markets for such products can provide incentives to the research and development industry for new product development.

In 2003, WHO has conducted a survey to collect information on pesticide management practices. The information collected was limited and from 71 countries only. Updated information on policies, legislation, regulation, data requirements for registration and national capacity for regulation and quality control of public health pesticides in major vector-borne disease endemic countries is presently rather limited. WHO therefore plans to map and document pesticide management practices and regulations through a survey in over 130 countries endemic with major vector-borne diseases. The outcome of this activity will better inform future plans to optimize and harmonize public health pesticide registration procedures and post-registration regulation including development of national strategies and action plans and advocacy for resource mobilization.

The survey will be managed through WHO Regional Offices and administered in the participating countries by approaching the pesticide registration authority(ies) and the national vector-borne disease control programmes. The questionnaire used in the 2003 survey was made available to the JMPM and WHO invited suggestions for its improvement. The instrument will be finalized with involvement of FAO, UNEP and other key stakeholders through a consultation meeting.

It was suggested in the discussion that followed that countries should appoint a single contact point for this type of survey (e.g. the registrar of pesticides), so as to facilitate the provision of reliable and appropriate data. Both UNEP and FAO indicated that they could provide contact information for pesticide registrars and regulators, and could provide assistance in follow-up in the countries, if needed.

The JMPM expressed its appreciation for this initiative and agreed to provide further written comments on the draft questionnaire by 30 October 2009.

9. Updating the Code of Conduct

The JMPM, at its previous session, recommended that FAO and WHO start the process to ensure that the Code of Conduct, and its implementation tools, adequately addresses all pesticides, and in particular public health pesticides.

Since the previous session of the JMPM, both WHO and UNEP have provided suggestions for amendments that could be considered in an updated Code of Conduct. Also, FAO had obtained agreement from its Committee on Agriculture (COAG) to advance with the updating process, as a first formal step in the procedure.

The following process was proposed for updating the Code of Conduct:

1. JMPM members and observers will provide written comments on the first set of suggested amendments by WHO and UNEP by 15 December 2009;
2. FAO will prepare a first draft of a consolidated updated version of the Code of Conduct, to be circulated for comments to all JMPM members and observers.
3. a consolidated draft version of the updated Code of Conduct will be available for presentation and discussion at the WHOPES meeting in June 2010;
4. a (new) draft version of the updated Code of Conduct will be discussed in detail at the next session of the JMPM in October 2010;
5. a JMPM agreed version of the updated Code of Conduct will be submitted to COAG by early 2011, and to appropriate WHO and UNEP technical/legal bodies, for approval;
6. the updated Code of Conduct will be submitted for adoption to the FAO Conference by November 2011;
7. the FAO-adopted updated Code of Conduct will be submitted to the governing bodies of WHO and UNEP for adoption;
8. the updated Code of Conduct will subsequently be jointly published by FAO, WHO and UNEP.

The JMPM reiterated its previous opinion that any updating of the Code of Conduct should be limited, mainly ensuring that its scope adequately covers public health pesticide use and other non-agricultural uses, and environmental aspects, and bringing up to date the references to guidelines and other supporting documentation. Any major revisions should be avoided, as this might require lengthy negotiations.

10. Guidelines drafting procedure

The JMPM was presented with a proposal to amend the procedure for drafting guidelines in support of the Code of Conduct. Various reasons were provided for amending the present procedure, among them: the fact that the previous procedure was still dated from the FAO Panel, before the JMPM came into existence; the slow guideline development process; and the refocusing of JMPM tasks, away from mainly producing and reviewing guidelines, as

recommended by its last Session. Also, FAO and WHO felt that responsibilities for the different stages of the guideline development process needed to be better defined.

Following discussion by the JMPM members, in which the importance of the preparation of a good annotated outline and timely circulation of drafts before each JMPM was emphasized, the responsibilities for different tasks in development of guidelines were defined as follows.

Responsibilities of the JMPM (members of the FAO and WHO Panels):

- identification of new or to be revised guidelines;
- review of draft outlines;
- advice on whether external peer review is needed;
- elaboration of draft guidelines (if specific expertise/interest exists);
- review of final drafts of guidelines, where JMPM members advise on the contents of the guideline and endorse its final version.

Responsibilities of observers to the JMPM:

- advice on new or to be revised guidelines;
- review of draft outlines;
- review of final drafts of guidelines, where observers to the JMPM advise on the contents of the guideline.

Responsibilities of FAO and WHO:

- appointment/recruitment of drafters of the outline/guideline;
- development of the outline of the guideline;
- elaboration of the draft guideline;
- organization of external peer review (if recommended by the JMPM);
- incorporation of comments made by peer review, JMPM and observers;
- finalization of the guideline;
- publication of the guideline.

The amended guideline development procedure, based on the above considerations, is provided in Annex 4.

11. Draft guidelines under development – review

The Panel reviewed two of draft guidelines that are presently being developed.

11.1 Guidelines on resistance management for pesticides

The previous session of the JMPM had briefly discussed the status of the development of the Guidelines on resistance management for pesticides and requested that the draft available at the time be circulated for external peer review by a limited number of independent experts, from both agriculture and vector control. The JMPM in 2008 also requested that comments provided through the peer review be taken into account in the latest draft, which should then be submitted to the Panel and observers for review and endorsement, before the 2009 session.

This draft was presented by the chair of the Task Group for this guideline. He noted that external peer reviews had been received from six reputable scientists, covering in particular insecticide, herbicide resistance in agriculture, and resistance of disease vectors. The comments from the peer reviewers could be grouped under three topics: 1) Technical and scientific comments regarding the contents of the guidelines. Most of these comments had been incorporated by the drafter, and where this was not the case, a valid justification had been provided. 2) Additional examples, mainly for vector control. A specific example had been included by the drafter, although arguably the number of examples could be expanded. 3) Editorial comments. Many had been taken up by the drafter, and others could be handled by the in-house editor of FAO and/or WHO.

It was generally felt by the JMPM that this draft was close to publication, and a limited number of comments were made to be included in the final version:

- change the title to *Guidelines on prevention and management of pesticide resistance* (to take into account an earlier recommendation of the Panels);
- use the definition of pesticide as listed in the *Manual on development and use of FAO and WHO specifications for pesticides (2006)*[8];
- include a section on the scope of the guidelines, which should include a description of the target audience, the type of pesticides and pesticide uses covered, and the fact that genetically modified crops are also included in the guideline, acknowledging that different approaches to resistance management of pesticides are available;
- clarify the section on rodenticide resistance, in particular with respect to inherent warfarin resistance, and the use of vitamin K as antidote.

A number of amendments which had already been announced by the drafter should also be incorporated.

The JMPM endorsed this version of the guideline in principle, taking into account the comments made, and requested that FAO and WHO carry out an editorial review of the revised version to be received from the drafter. It further recommended that the final draft be sent to the external peer reviewers to only acknowledge that their comments have been satisfactorily addressed.

[8] This recommendation was made to apply to all new or revised guidelines to be published by FAO and WHO.

The JMPM recommended that subsequently a final version of the guidelines be circulated, inter-session, to its members for endorsement.

11.2 Guidelines on good labelling practice for pesticides

Risk perception and communication

A short presentation was made of the results of a study on risk perception and risk communication amongst agricultural workers in Italy, as background to this agenda item. It concerned a survey covering 100 workers in vineyards, carried out in 2008. The majority (60 percent) of respondents obtained their information on the pesticide from the pesticide label or the safety data sheet (SDS), while retailers were another important source of information.

The results of this research indicated that only part of the information on the label and SDS was understood by workers. In particular the St. Andrew's cross, the GHS environmental hazard pictogram, and several risk and safety phrases used in the EU, are insufficiently understood. The results of the study underline the need for regular communications on hazard warning information and training with respect to labels and SDSs.

Draft guidelines

In its previous session, the JMPM discussed the status of the revision of the *Guidelines on good labelling practice*. It agreed that clear advice on labelling needed to be provided to countries, and that parallel presentations of the WHO and GHS classifications for pesticides in the same guideline should be avoided. The Panel recommended that the guideline be updated, taking into account the GHS, but ensuring that the existing guideline is not changed more than absolutely necessary.

A draft revision of the *Guidelines on good labelling practice* was presented to the JMPM. Both format and content of the revision followed the previous version as much as possible, although certain new sections and annexes had been included. The JMPM discussed its scope and contents and made various suggestions for amendments and additions:

- focus the guideline on primarily regulators;
- provide a more detailed explanation why certain types of pesticides, such as bulk pesticides, are not covered in this guideline;
- include a separate section on labelling of household pesticides, and possibly also on public health pesticides;
- provide additional guidance on labelling of seed dressings;
- provide more detailed guidance on how to ensure that the label is clear and comprehensible;
- ensure that the GHS terminology is applied consistently (e.g. with respect to safety advice);
- clearly indicate the requirement to use the local language on the label as a priority, and provide more detailed guidance on multi-language labels;
- provide more guidance on information that should not be on the label;

- include information on dangerous co-formulants on the label;
- provide more detailed guidance on the "directions for use" section on the label;
- include clear advice on the use of colour on the label;
- include the requirement for triple rinsing as a standard safety advice on the label;
- include information on proper storage and empty container disposal;
- provide advice on the use of pictures or drawings of target organisms on the label;
- apply the GHS pictogram on environmental hazards according the (hazard) criteria stipulated by the GHS;
- review and possibly reconsider the assumption made in the guideline that pesticides can be considered as "consumer products" as defined by the GHS.

The JMPM agreed that further written comments be submitted by its members and observers until 15 December 2009. The JMPM recommended that a new version should subsequently be prepared and circulated to its members and observers, for consideration at its next session.

12. Draft outlines and concepts for guidelines – review

The JMPM reviewed one outline and two concept notes for guidelines to be developed in support of the Code of Conduct.

12.1 Guidelines on quality control of pesticides

An annotated draft outline for *Guidelines on quality control of pesticides* was presented to the JMPM. The scope of the guideline was proposed to cover the legislative, administrative, organizational and infrastructure (facilities and trained manpower) requirements to implement a quality control scheme of pesticides. It would not include quality assurances practices of quality control laboratories, for which a recent international guideline is available.

The JMPM emphasized the importance of developing this guideline, and discussed its proposed contents. It made a number of suggestions to be taken into account when drafting the full document:

- limit the section on responsibilities to those that have been defined in the Code of Conduct, and that specifically refer to pesticide quality control;
- review the definitions of adulterated and counterfeit pesticides against pesticide industry definitions;
- include the inspection of labelling and packaging of pesticides;
- address quality control options and requirements at different administrative levels, going from local to national;
- address quality control as required in international trade;
- ensure sufficient guidance on sampling, including strategies and methods for sampling and specific requirements for enforcement sampling;

- include guidance on sources for pesticide quality specifications, in particular when WHO/FAO specifications do not exist;
- focus on quality control of existing stocks already in the country, rather than only at the point of entry into the country, and stress the importance of continuous quality control over the long term;
- clarify the objectives of pre-registration (pre-marketing) quality control versus post-registration market control;
- carefully address the need for national quality control laboratories versus the possibilities for regional laboratories;
- include the management of non-compliant batches of pesticides;
- include a section on treatment of complaints about product quality;
- strive to avoid a predominantly punitive approach in the guideline, and also emphasize positive aspects of quality control.

The JMPM also requested FAO and WHO to ensure effective linkages among, and avoid unnecessary overlap between, guidelines covering related topics such as those on compliance and enforcement, retail establishments and quality control.

The JMPM endorsed the draft outline of this guideline, taking into account the comments made above. The JMPM agreed to allow for further written clarifications of these comments until 15 December 2009, after which FAO and WHO should proceed with the drafting of the guidelines for consideration in the next Session of the JMPM.

12.2 Guidelines on retail establishments

At its previous session, the JMPM had requested FAO and WHO to prepare a new detailed annotated table of contents for *Guidelines on retail establishments*, and circulate it for comments. At the time, the JMPM recommended that this guideline should focus on providing advice to governments on the establishment of a proper system and setting minimum requirements of pesticide distribution and sales within the country.

While a full annotated outline had not been prepared yet, FAO presented various possible directions for such an outline. The JMPM discussed these elements and made a number of suggestions to be taken into account when developing the full annotated outline:

- cover licensing, inspection and training of retailers;
- cover the requirements of and qualifications for pesticide retailing in sufficient detail;
- address the retail of different types of pesticides, including agricultural, veterinary, household and professional pest control products, and possible differences in regulating them;
- address different types of retailers, among them dedicated pesticides or agrochemicals shops, multi-purpose shops also selling pesticides, small ambulant pesticides salesmen, etc.;
- address the diversity in supply chains for pesticides, both within and between countries;

- cover regulation and control responsibilities at different government levels (e.g. central government versus municipalities);
- ensure that realistic guidance is provided with respect to requirements (e.g. for training, licensing), in particular in countries with limited resources.

The JMPM supported the general directions proposed, taking into account the above comments, and recommended that a detailed annotated outline of the guideline be prepared for consideration at its next session.

12.3 Secondary guidelines on pesticide registration

The *FAO/WHO Guidelines on registration of pesticides* are presently being developed as an umbrella guideline which describes structure, organization and process of pesticide registration. Under the umbrella guideline, a registrar will need additional specific technical guidance on various topics such as data requirements, data evaluation methods, pesticide labeling, etc. A concept note was presented to the JMPM on a suggested approach to developing this type of secondary technical guidance on pesticide registration.

It was suggested not to produce any further stand-alone, comprehensive, guidelines on data requirements, testing guidelines and data evaluation, because such guidelines run the risk of being rigid and unwieldy documents. Alternatively, an interactive, web-based, electronic system was proposed which would allow active linkages between data requirements, test guidelines, data evaluation and risk assessment. The system would function as an "electronic registration handbook", and would guide the registrar through the different stages of requiring data, identifying appropriate test guidelines, and finding options for evaluating the data, for the specific types of pesticide and use patterns relevant to the country.

While the JMPM considered this an interesting concept, it was generally considered that such an integrated system would take a long time to develop and might be pursued in the long-term. In the short-term, stand-alone guidelines on various aspects of pesticide registration would still be required. In particular, the provision of up-to-date guidance to countries on data requirements for registration was considered a priority.

With respect to developing alternative methods for pesticide risk assessment, which could be applied by registration authorities with very limited staff, CropLife indicated that simplified procedures are being developed by them which might be appropriate for developing countries and could be shared with the JMPM.

The JMPM recommended that FAO and WHO further elaborate a proposal for a type of "electronic registration handbook", as outlined in the concept note, in collaboration with relevant external experts. The JMPM also recommended, as a first priority**,** that guidelines on data requirements for registration of pesticides be developed and/or updated.

13. Draft guidelines under development – status report

A status report on various draft guidelines under development was presented to the JMPM.

13.1 Guidance on pest and pesticide management policy

At its previous session, the Panel had recommended that a final draft of the *Guidance on pest and pesticide management policy* be elaborated and circulated among Panel members for endorsement. Since such a final draft had not yet been prepared, the JMPM was informed about the present status of development of the guidance document. The drafter indicated that after two reviews by the task group established for the guidance document and two by the JMPM and observers, additional review rounds would likely not lead to new insights.

The JMPM therefore recommended that a final draft be prepared by FAO to be circulated, with all previously made comments, by 15 December 2009, for comments and possible endorsement by the JMPM. Following endorsement by the JMPM, FAO was requested to circulate the guideline to observers for information purposes only, and proceed with publication.

13.2 Guidelines on pesticide advertising

Draft *Guidelines on pesticide advertising* had been discussed during the previous session of the JMPM. At the time, JMPM recommended that the Task Group prepare a new draft of the document, for subsequent circulation among the Panel members for endorsement.

A new draft of this guideline was subsequently prepared by the Task Group, with support from FAO. However, FAO considered that one particular issue needed to be revisited by the JMPM, which was the recommendation made by its previous session to include examples of inappropriate incentives or gifts, to further clarify Article 11.2.18 of the Code of Conduct, which states that: “Pesticide industry should ensure that advertisements and promotional activities should not include inappropriate incentives of gifts to encourage the purchase of pesticides”.

The task group member CropLife International had expressed great reservations on inclusion of such examples, as recommended by the 2008 JMPM, while the task group member Pesticide Network International and the International Union of Food Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations had strongly argued in favour of inclusion. FAO therefore requested the JMPM to provide advice on three possible options on how to deal with this issue:

1. include examples of inappropriate incentives only, as had been recommended by the previous session of the JMPM;
2. include examples of both inappropriate and appropriate incentives;
3. exclude examples of either inappropriate or appropriate examples.

FAO furthermore indicated that it considered it important that the pesticide industry would support the contents of the guideline, as they were its main target. The JMPM and its observers therefore discussed the issue again. One of the points brought forward was that

inclusion of examples could never be fully comprehensive, while conversely, exclusion of a list of examples would not necessarily limit the scope of the guideline. Ultimately, the JMPM recommended finalization of the guideline leaving out the examples, and deleting the last paragraph of the relevant section which stated that "the exact interpretation of this article will depend to a certain extent on the national cultural and economic situation, and the responsible authority should define what constitute inappropriate incentives". The JMPM requested FAO and WHO to proceed with publication subsequently.

13.3 Guidelines for the registration of pesticides

Draft *Guidelines for the registration of pesticides* had been discussed during the previous session of the JMPM. The JMPM had recommended that a new draft should prepared and circulated among Panel members for endorsement, and that, if no major comments were received, FAO and WHO, proceed with publication of the guideline.

A revised draft had subsequently been prepared by WHO by April 2009, which was circulated to JMPM members for endorsement, and to observers for information. Generally, the revised draft of the guidelines was well received, and comments by Panel members were relatively minor. Further comments were also received from pesticide industry associations, most of which could be accommodated, while a limited number of others were rejected by WHO and FAO because they were considered to go against earlier recommendations of the JMPM.

The section on data protection and confidentiality yielded divergent opinions between pesticide industry associations. The JMPM was therefore requested to advise on this issue again in the present session, and both AgroCare and CropLife International provided their views on this topic to the meeting. After discussion, the JMPM concluded that the issue of data protection was beyond the scope and expertise of the Panel, and therefore recommended that FAO and WHO seek advice from the World Trade Organization in finalizing the text of this section.

The JMPM recommended that FAO and WHO prepare the final draft of the guideline, and a listing of previous comments, for circulation among current JMPM members and observers for information. The JMPM further recommended that JMPM 2008 members who commented on the previous draft be asked to acknowledge that their comments have been taken into account in a satisfactory manner. If no objections from JMPM members are received, endorsement will be assumed and FAO and WHO should subsequently proceed with publication.

13.4 Guidelines on pesticide legislation

The JMPM, in its previous session, asked FAO and WHO to develop an outline for a new guideline on pesticide legislation, to be presented for consideration by the Panel at its next session.

FAO informed the JMPM that this outline had not yet been prepared, but that a legal consultant had been identified and would be recruited shortly. It was indicated that an annotated outline would be prepared as soon as possible and circulated to the JMPM and observers electronically for comments. On the basis of these comments, a final outline would

be prepared and circulated to the JMPM for endorsement. It was expected that an advanced draft for this guideline could then be available for discussion at the next session of the JMPM.

14. Selected FAO and WHO activities to strengthen pesticide management

At its 2008 session, the JMPM had underlined the importance of implementation of the Code of Conduct in particular at the national and regional levels. The meeting was therefore informed of selected ongoing FAO and WHO activities on pesticide management at the national level, with the objective to identify challenges encountered and priorities for future action. Presentations were made about the following programmes:

- Africa Stockpiles Programme;
- Management of public health pesticides in developing countries;
- Pesticides and pollination services;
- Pesticide risk reduction in West Africa;
- Pesticide risk reduction in selected Asian countries;
- Capacity building related to multilateral environmental agreements in African, Caribbean and Pacific (ACP) countries;
- Feedback regarding pesticide management from the FAO Regions.

The JMPM expressed its appreciation for the wide range of activities undertaken and achievements made. A large number of challenges were identified, and lessons learned, by the speakers and in the ensuing discussions. They include, but are not limited, to the following.

- National legislation in a significant number of countries is limited only to plant protection products and does not cover public health pesticides. Where such legislation exists, there is either lack of unified registration/regulation of pesticides or there exists a conflict of jurisdiction for such regulatory actions among agencies.
- In many disease-endemic countries, human resource and infrastructure capacities for regulation of public health pesticides are either weak or non-existent. This includes inadequate capacity for registration and post-registration monitoring and evaluation as well as enforcement.
- Mechanisms for recording national data on pesticide use are weak or non-existent, and a central poison centre does not exist in the country.
- There is a general lack of awareness of the Code of Conduct in sectors other than in agriculture.
- Information exchange and work-sharing among countries on registration and regulation of pesticides is poor.
- Civil society is relatively weak in many countries, and they are not much involved in pesticide registration and post-registration issues.

- Some form of pesticide legislation is in place in almost all countries. However, enforcement of the legislation remains a big challenge.
- Many countries are not able to operate a full-fledged registration scheme, because i.) human and financial resources are too limited, ii.) major pesticide companies are not interested in registration because local pesticide markets are too small, and iii.) pesticide importation and distribution are largely informal.
- In addition to guidelines that describe the ideal approach to registration, many countries need practical guidance on what can be done with limited human and financial resources available.
- Substandard, illegal and counterfeit pesticide products are a substantive problem in many, both industrialized and developing, countries
- Assistance to establish analytical chemistry capacity often has not led to laboratories that are actually operational. Laboratory facilities have often been initiated with donor support, with emphasis on supply of equipment and training of staff. Little or no attention has been given to operational aspects and the development of a business plan. Regional networks of laboratories can be set up to reduce procurement and maintenance costs and strengthen quality assurance.
- In many countries, lack of human and financial resources may result in donors setting the agenda. Activities become project driven, and donor priorities are not necessarily national priorities.
- For a large proportion of the countries, the ideal situation is still very far away. These countries need practical guidance on what can be effectively achieved with the limited human and financial resources they have available.
- Negotiate with donors to agree on programme objectives. Experience with pesticide management in the field may broaden the scope of a project. However, a broader scope can result in greater demands from participating countries and objectives therefore need to stay achievable
- Individual organizations are not operating in a vacuum. It is important to identify and link with relevant initiatives. Collaboration can extend resources if all can agree on common approaches.
- Engage stakeholders early. Identifying needs and matching these needs to budgets defines project scope. But stakeholder expectations should be realistic and their engagement constructive from the start.
- One project is never enough. Plan early to secure additional funds and use existing projects to leverage funds for additional activities.
- Focus on national projects; most of the actual work on strengthening pesticide management is done at the national level.
- Effective coordination and collaboration between national institutions involved in pesticide use and management is essential, to ensure sharing of limited resources.
- Use international trade interests and consumer interests, in particular relating to pesticide residues, as a motor to influence policy on pesticide management.

On the basis of these discussions, the JMPM recommended that in the future particular attention be given to national and international coordination and collaboration for optimal and

effective utilization of limited resources. Regionally-based expertise could be better used to enhance these activities.

The JMPM emphasized that there are still great gaps between the ideal situation and reality with respect to the capacity of many countries to implement the Code of Conduct, and recommended that pragmatic approaches be sought to strengthen pesticide management in countries with limited resources (this could include the development of a "model scheme" for pesticide management in countries with limited resources). The JMPM also stressed the need for mobilizing additional resources to enable countries to improve pesticide management practices at the national scale.

15. Synergies with other international instruments

The JMPM took note of a number of activities of other international instruments relevant to strengthening pesticide management.

The UN CSD monitors implementation of Agenda 21, which has set goals for environment and development until 2020. The upcoming 2-year cycle of CSD will focus on chemicals. FAO had prepared a report on *Reduction of risks from pesticides*, as a contribution to the UN Secretary General's report to the 18th CSD in May 2010. This report had also been circulated to the JMPM.

With respect to the CSD, the JMPM recognized the importance of pesticides being included in the next cycle of the CSD and supported the contribution made by FAO in that respect. The JMPM also noted the importance of providing a common position of all relevant UN specialized organizations on chemicals management in general, and pesticide management in particular, to the CSD. The JMPM acknowledged the importance of making available experiences with pesticide management as a model for other chemicals management activities.

Because the CSD provides an opportunity to bring the issues related to pesticide management to a high level UN policy meeting, the JMPM recommended that FAO, WHO and UNEP consider organizing a joint side event on challenges for sound pesticide management in developing countries at the next session of the CSD.

The JMPM was also informed about the *Global Alliance to develop and deploy alternatives to DDT*, which was established under the Stockholm Convention. The main objective of the Global alliance is "to develop and deploy alternative products, methods and strategies to DDT for disease vector control". It has the following overall goals: i.) strengthen the base of knowledge available to inform policy formulation and decision making, ii.) overcome the complexity and cost of deploying alternatives to DDT, iii.) make available new alternative vector control chemicals, and iv.) develop non-chemical products and approaches for vector control.

Two recent workshops have examined the barriers and possible solutions for bringing new public health pesticide products to market. The JMPM noted as one of the challenges the development of appropriate efficacy testing guidance for public health pesticides, which would avoid unnecessary local testing that presently may hamper registration through a need

for more data collection. In addition, caution was expressed with respect to the too rapid replacement of DDT by other chemical pesticides, drawing from the example in desert locust control where dieldrin was replaced by an insecticide that was withdrawn later for environmental reasons.

A short presentation was also made regarding recent developments in SAICM. The 2nd ICCM (ICCM-2) took place in May 2009, and discussed, among other, the funding of activities to strengthen chemicals management. The present funding mechanism, the QSP, might end in 2012, and the possibility to involve the Global Environment Facility in future funding was being assessed. In addition, a number of emerging issues had been identified by ICCM, among them chemicals in products and nanomaterials, both of which may in some cases be linked to pesticides.

The JMPM took note of these and other activities carried out in relation to pesticide management by WHO, FAO, UNEP and various international instruments and observed certain commonalities. The JMPM therefore recommended more effective coordination and collaboration among relevant UN agencies to make best use of limited resources to more efficiently support pesticide-related activities.

16. Recommendations

Based on the working documents reviewed, the presentations made and the discussions held during the meeting, the JMPM made the following recommendations.

Drafting procedure

The JMPM discussed drafting procedure for guidelines in support of the Code of Conduct, underlining the importance of the preparation of a good annotated outline and timely circulation of drafts before each JMPM, and proposed certain amendments. The JMPM **accepted** the amended procedure as laid out in this report.

Terms of reference

FAO and WHO presented the Terms of Reference of the JMPM, so that its members are aware of their tasks and responsibilities. The JMPM **recommended** that Terms of Reference should also be elaborated for observers to the JMPM, and circulated to the JMPM. FAO and WHO were requested to provide the Terms of Reference for the observers in advance of the next Session.

Coordination and collaboration between UN Organizations

The JMPM took note of activities carried out in relation to pesticide management by WHO, FAO and UNEP since its last Session and observed certain commonalities.

The JMPM therefore **recommended** more effective coordination and collaboration among relevant UN agencies to make best use of limited resources to more efficiently support pesticide-related activities.

Highly hazardous pesticides

The JMPM discussed the status of implementation of recommendations made on HHPs after its previous Session. The JMPM **reiterated** its previous observations of the problems faced by many countries in classifying pesticides based on different classification systems during registration

The JMPM took note of the work being undertaken by the WHO PCS on harmonizing the *WHO Classification of Pesticides by Hazard* with the GHS. The JMPM **commended** WHO/PCS for applying the GHS criteria for acute toxicity to the new revision of the WHO Classification. The JMPM took note of the constraints in taking into account the GHS classification in the WHO Classification, **reiterated** the importance of first considering the health aspects of the GHS classification, and **recommended** that WHO make a proposal to the next JMPM on the future inclusion of these elements, with priority for carcinogenic, mutagenic and reproductive toxic pesticides.

The JMPM was also informed about a FAO supported proposal for a pilot project on risk reduction of HHPs in Mozambique. The JMPM considered that the pilot project is important for gaining experience in the management of HHPs, and **recommended** that it proceed subject to funding, and that the objectives should be further clarified and performance indicators identified. The JMPM noted that adverse incident reporting was not included in the project and **recommended** that the recently published guideline on this topic be used. The JMPM **welcomed** the interest shown by WHO and UNEP in collaborating in this type of project. The JMPM further **recommended** that more pilot projects of this nature should be developed to reduce risks of HHPs in other countries.

Monitoring implementation of the Code of Conduct

The JMPM took note of the results of a global survey carried out by FAO on implementation of the Code of Conduct. The JMPM **considered** the survey an important tool to evaluate the progress made and to identify priorities for strengthening pesticide management. The JMPM **made** various **recommendations** to improve the response rate of countries and the coverage of the questionnaire. The JMPM also recommended the development of a self-assessment tool for use by national programmes.

The JMPM was informed about the intention by WHO to map the regulatory landscape for public health pesticide management in about 130 countries where vector-borne diseases are of public health importance. The JMPM **expressed** its **appreciation** for this initiative and **agreed** to provide further written comments on the draft questionnaire by 30 October 2009

Updating the Code of Conduct

The JMPM was informed of the procedure to be followed for updating the Code of Conduct. The JMPM **was of opinion** that amendments to be proposed should ensure that public health pesticides and other non agricultural pesticides, and environmental concerns, are properly covered, but that major amendments should be avoided, as it may delay the process of updating the Code of Conduct. The JMPM **agreed** to provide further written comments to amendments proposed by WHO and UNEP by 15 December 2009.

Activities to strengthen pesticide management at the national level

The JMPM was informed of selected FAO and WHO activities to strengthen pesticide management at the national level, and **expressed** its **appreciation** for the wide range of activities undertaken and achievements made. The JMPM **recommended** that in future activities particular attention be given to national and international coordination and collaboration for optimal and effective utilization of limited resources. Regionally-based expertise could be better used to enhance these activities. The JMPM **emphasized** that there are still great gaps between the ideal situation and reality with respect to the capacity of many countries to implement the Code of Conduct, and **recommended** that pragmatic approaches be sought to strengthen pesticide management in countries with limited resources.

The Panel **stressed** the need for mobilizing additional resources to enable countries to improve pesticide management practices at the national scale.

Synergies with other international instruments

The JMPM took note of activities of other international instruments relevant to strengthening pesticide management, such as the UN CSD, the Global Alliance to develop and deploy alternatives to DDT, coordinated by the Stockholm Convention, and SAICM.

With respect to the CSD, the JMPM **recognized** the importance of pesticides being included in the next cycle of the CSD which is focussing among others on chemicals, and supported the contribution made by FAO in that respect. The JMPM **recommended** that FAO, WHO and UNEP consider organizing a joint side event on challenges for sound pesticide management in developing countries at the next session of the CSD in 2010.

The JMPM **acknowledged** the importance of making available experiences with pesticide management as a model for other chemicals management activities.

Guidelines in support of the Code of Conduct

The JMPM reviewed a number of draft guidelines that were developed in support of the Code of Conduct, and made the following recommendations.

a) With respect to the draft *Guidelines on resistance management for pesticides*, the JMPM was informed about the feedback received from the external peer review. The JMPM **made** a number of **suggestions** for amendments or clarifications of the contents of the guideline, as laid out in this report.

   The JMPM **requested** that the author incorporates additional information as suggested during the meeting and send the revised version to FAO and WHO, for editorial review. The JMPM **recommended** that the final draft be sent to the external peer reviewers to only acknowledge that their comments have been satisfactorily addressed. The JMPM **recommended** that subsequently a final version of the guidelines be circulated, inter-session, to its members for endorsement.

b) With respect to the draft *Guidelines on good labelling practice for pesticides*, the JMPM discussed its scope and contents and made various suggestions for amendments and additions, as laid out in this report. The JMPM **agreed** that further written comments be submitted by JMPM members and observers by 15 December 2009. The JMPM

recommended that a new version should subsequently be prepared and circulated to its members and observers for consideration at its next session.

The JMPM reviewed a draft outline for guidelines to be developed in support of the Code of Conduct, and made the following recommendations.

a) With respect to the draft outline for *Guidelines on quality control of pesticides*, the JMPM **emphasized** the importance of developing this guideline. The JMPM **endorsed** the draft outline of this guideline, taking into account the comments made during the meeting, as laid out in this report. The JMPM **agreed** to allow for further written clarifications of these comments by 15 December 2009, after which FAO and WHO should proceed with the drafting of the guidelines for consideration in the next Session of the JMPM.

The JMPM also reviewed a number of concepts for guidelines to be developed in support of the Code of Conduct, and made the following recommendations.

a) With respect to the *Guidelines on pesticide retail establishments*, the JMPM took note of proposed elements for an outline for this guideline. The JMPM **recommended** that the scope of the guideline should address agricultural, veterinary, household and professional pest control pesticide products. The JMPM **recommended** that an outline of the guideline be prepared for consideration at its next Session.

b) With respect to secondary technical guidelines on pesticide registration**,** the JMPM was informed about a concept note on development of such guidelines. The JMPM **supported** the updating or developing of supporting technical guidelines for pesticide registration. The JMPM **welcomed** the concept note for development of an electronic system to facilitate access to information needed for registration of pesticides, with recognition that it needs to be useful for countries with limited resources, and **recommended** that FAO and WHO further elaborate a proposal, in collaboration with relevant external experts. The JMPM also **recommended**, as a first priority**,** the development of guidelines on data requirements for registration of pesticides.

The JMPM reviewed the drafting status of a number of guidelines which are being developed in support of the Code of Conduct, and made the following recommendations.

a) With respect to the *Guidance on pest and pesticide management policy development*, the JMPM noted the status of development of this document and **recommended** that a final draft be prepared by FAO to be circulated, with previously made comments, by 15 December 2009, for comments and possible endorsement by the JMPM, Following endorsement by the JMPM, FAO was requested to circulate the guideline to observers for information, and proceed with publication.

b) With respect to the *Guidelines on pesticide advertising*, the JMPM noted the status of development of this draft guideline and the divergent concerns of some of the observers regarding inclusion or exclusion of examples of appropriate and inappropriate incentives or gifts to encourage the purchase of pesticides. The JMPM **recommended** finalization of the guideline with proposed editorial changes as laid out in this report, for subsequent publication by FAO and WHO.

c) With respect to the *Guidelines for the registration of pesticides*, the JMPM noted the status of development of this draft guideline and the concerns of some of the observers

related to section on data protection and confidentiality. The JMPM **recommended** that FAO and WHO seek advice from WTO in finalizing the text of this section. The JMPM **recommended** that FAO and WHO prepare the final draft of the guideline, and a listing of previous comments, for circulation among current JMPM members and observers for information. The JMPM further **recommended** that JMPM 2008 members who commented on the previous draft be asked to acknowledge that their comments have been taken into account in a satisfactory manner. If no objections from JMPM members are received endorsement will be assumed and FAO and WHO should subsequently proceed with publication.

17. Closure of the meeting

The 3rd FAO/WHO Joint Meeting on Pesticide Management, and the 5th Session of the FAO Panel of Experts on Pesticide Management, was closed by Mr Peter Kenmore, Deputy Director of the Plant Production and Protection Division of FAO.

Mr Kenmore, in his closing address, expressed his great satisfaction about the work that had been achieved during the week, and thanked Panel members, observers and UN staff not only from various headquarters, but also from the regions, for their efforts and the long hours made. He particularly acknowledged the strong contributions from new Panel members. Mr Kenmore expressed his gratefulness to all participants for keeping a process going that started more than 20 years ago. The JMPM, and its predecessors, is a unique model in which UN organizations, independent experts, pesticide industry and NGOs discuss challenges for sound pesticide management and try to come up with solutions.

Mr Kenmore was pleased that the reports that had been made to the JMPM on activities of FAO and WHO in the field had been a stimulus for discussion and might have helped to direct the future work of the Panel. He also underlined the importance of changing communication technologies, bringing colleagues from all over the world so much closer and noted that this creates opportunities, but also challenges, for the JMPM and its work.

Finally, Mr Kenmore indicated that he was looking forward to the next session of the JMPM, in Geneva, and wished everybody a safe journey home.

Annex 1 – List of participants

FAO PANEL MEMBERS

Dr Amadou Diarra
Département Intrants Agricoles et Réglementations
Comité Sahélien des Pesticides
CILSS/ Institut du Sahel
Bamako
Mali
Tel: +223 2022 47 06
Fax: +223 2022 78 31
Mobile: +223 76463766
E-mail Bureau : csp@insah.org
E-mail private: diarra.amadou01@yahoo.fr
Site web : www.insah.org

Dr Gu Bao-Gen
Deputy Director General
Institute for the Control of Agrochemicals Ministry of Agriculture (ICAMA)
No. 22, Maizidian Street, Chaoyang District
Beijing 100125
China
Tel: (+86) 10 6419 4079
Fax: (+86) 10 6593 7005
E-mail: ggbbgg868@yahoo.com.cn and gubaogen@agri.gov.cn

Mr David Kapindula
Principal Inspector
Pesticides and Toxic Substances
Environmental Council of Zambia
Corner of Suez and Church roads
P.O. Box 35131
10101
Lusaka, Zambia
Tel: +260 211 254130/254023/59
Fax: +260 211 254164
Email: dkapindula@necz.org.zm

Mr Eric Liegeois
European Commission
Avenue d'Auderghem, 45
Office: Brey 11/213
No. 1050, Brussels
Belgium
E-mail: Eric.LIEGEOIS@ec.europa.eu

Ms Kimberly Nesci
US Environmental Protection Agency (EPA)
Office of Pesticide Programs (7505P)
Pennsylvania Avenue, 1200, NW
Washington, DC 20460
United States of America
Tel: +703 308 8059
E-mail: nesci.kimberly@epa.gov

Dr Maristella Rubbiani
Head of the Unit
Hazard Evaluation of Preparations and Mixtures
National Center for Chemicals
Istituto Superiore di Sanità
Viale Regina Elena 299 – 00161
Roma- Italy
Tel: (+39) 49902320 - 2353
Fax: (+39) 0649902353
http://www.iss.it
E-mail maristella.rubbiani@iss.it

Dr Gary Whitfield
Science Director – Integrated Pest Management
Agriculture & Agri-Food Canada
Greenhouse and Processing Crops Research Centre, R. R. #2
2585 County Road #20
Harrow, Ontario, N0R 1G0
Canada
Tel: (+519) 738 1219
Fax: (+519) 738 3756
E-mail: Gary.Whitfield@AGR.GC.CA

WHO PANEL MEMBERS

Dr Cristina Alonzo
Chemical Safety Unit
Department of Environmental Health
Ministry of Public Health
Avenida 18 de Julio 1892
4to piso, Anexo B. Montevideo
Uruguay
Tel: 598 2402 8032
Fax: 598 2402 8032
Email: aloncris@adinet.com.uy

Dr Sandhya Kulshrestha
Asst. Director General
Directorate General of Health Services
M/o Health & Family Welfare
Room no. 405-B, A-wing
Nirman Bhawan, New Delhi
India
Telefax: 91-11-23061886
Email: sandhyak@nic.in or
skulsh57@yahoo.co.in

Dr Irma R Makalinao
Professor and Acting Chair
Department of Pharmacology and Toxicology
College of Medicine
University of the Philipppines
Manila
No. 547 Pedro Gil St Ermita
Manila 1000
Philippines
Tel: +(63) 521.8251
Email: irmakalinao@gmail.com

Mr Somchai Preechathaveekid
Director
Hazardous Substances Control Division
Food and Drug Administration - FDA
Ministry of Public Health
Tiwanon Road, Nonthaburi 11000,
Thailand
Tel: 662 5918481/5907300
Fax: 662 591 8483
Email: psomchai@health.moph.go.th

Dr Tiina Santonen
Risk Assessment and Bio monitoring Team
Finnish Institute of Occupational Health
Topeliuksenkatu 41 a A
FI 00250 Helsinki
Finland
Tel: +358 (30) 474 2666
Fax: +358 (30) 474 2110
Email: Tiina.Santonen@ttl.fi

Mr Tan Soo Hian
21 Lorong Abang Openg Lima,
Taman Tun Dr. Ismail,
60000 Kuala Lumpur
Malaysia
Tel: +603 7729 6034
E-mail address: tansh@pd.jaring.my

INTER-GOVERNMENTAL ORGANIZATIONS

UNITED NATIONS ENVIRONMENT PROGRAM

Dr Nida Besbelli
UNEP Chemicals
11-13 chemin des Anémones
CH 1219 Chatelaine
Geneva
Switzerland
Tel: +41 22 917 8822
Fax: +41 22 797 3460
E-mail: NBesbelli@chemicals.unep.ch
http: www.chem.unep.ch

Mr Nelson Manda
UNEP Chemicals Branch
11-13 chemin des Anémones
CH 1219 Chatelaine
Geneva
Switzerland
Tel: +41 22 917 8932
Fax:+41 22 797 3460
E-mail: NManda@chemicals.unep.ch
http: www.chem.unep.ch

Dr Agneta Sunden-Bylehn
Senior Scientific Affairs Officer
UNEP Chemical Branch
Maison Internationale de l'Environnement
11-13, chemin des Anémones
CH - 1219 Châtelaine - Genève
Switzerland
Tel: +41 22 917 8193
Fax: +41 22 797 3460
Email : asunden@chemicals.unep.ch

Mr Paul Whylie
Programme Officer
Secretariat of the Stockholm Convention
International Environment House
11-15 Chemin des Anémones
CH-1219 Châtelaine
Geneva
Switzerland
Tel: +41 229178305
E-mail: pwhylie@pops.int

OBSERVERS

AGRO-CARE

Mr Pedro Correia
President
AGRO-CARE
Inventus Quimicos Lda
Rue Egas Moniz 11
PT-2765-218 Estoril
Portugal
Email: Inventus@mail.telepac.pt

Mr Roman Macaya
Agrocare
Apartado 1325-1250
Escazu
Costa Rica
Tel: +506 (2573) 7751/ 506. 8888-4730
Fax: +506 (2573) 7285
Email: rmacaya@rimacsa.com

CROPLIFE INTERNATIONAL

Dr Bernhard Johnen
Director, International Regulatory Policy,
Crop Protection,
CropLife International
Avenue Louise 326, Box 35
B-1050 Brussels
Belgium
Tel: (+32) 2 542 0410
Tel: (+32) 2 541 1668
Fax: (+32) 2 542 0419
E-mail: bernhard.johnen@croplife.org

Dr Richard Brown
CropLife International
c/o Syngenta Crop Protection
Schwarzwaldallee, 215
Basel CH-4002
Switzerland
E-mail:
richard_anthony.brown@syngenta.com

INTERNATIONAL UNION OF FOOD AGRICULTURAL, HOTEL, RESTAURANT, CATERING, TOBACCO AND ALLIED WORKERS' ASSOCIATIONS (IUF)

Mr François Meienberg
IUF c/o Berne Declaration
PO Box
CH 8026 Zurich
Tel: 41-44 277 7004
Email: food@evb.ch

PESTICIDE ACTION NETWORK

Ms Carina Weber
Geschäftsführerin (Director)
Pesticide Action Network International
(PAN)
Pestizid Aktions-Netzwerk e.V. PAN
Germany
Nernstweg 32
D - 22765 Hamburg
Germany
Tel: +49 (40) 399 19 10-23
Fax: +49 (40) 390 75 20
Email: carina.weber@pan-germany.org

FAO SECRETARIAT

Dr Mohamed Ammati
Agricultural Officer
FAO Plant Production and Protection Division
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel: (+39) 06 570 53985
E-mail: mohamed.ammati@fao.org

Ms Hannah Clarendon
Crop Protection Officer
RAFT-AG
FAO Regional Office for Africa
Gamel Abdul Nasser Road
P.O.Box 1628
Accra Ghana
Tel: 233 21 67 5000 ext. 3137
Fax 233 21 7010943
E-mail: hannah.clarendon@fao.org
http://www.fao.org/agriculture/crops

Mr Mark Davis
a.i. Senior Officer
Pesticide Management
FAO Plant Production and Protection Division
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel: (+39) 06 570 55192
Fax: (+39) 06 570 56347
E-mail: mark.davis@fao.org

Mr Taher ElAzzabi
Senior Plant Protection Officer
FAO Regional Office for the Near East
11 Al Eslah El Zerai St.
Dokki
Cairo Egypt
Fax: 00202 37495981
E-mail : taher.elazzabi@fao.org

Mr Theodor Friedrich
Senior Officer
Crop Production Systems Intensification
Viale delle Terme di Caracalla
00153 Rome
Italy
Phone: +39-0657055694
e-mail: theodor.friedrich@fao.org
URL: www.fao.org/ag/ca

Ms Barbara Herren
Global Project coordinator
FAO (AGPS)
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel +39-06 5705 6838
E-mail: barbara.herren@fao.org

Mr Allan Hruska
Oficial de Producción y Protección Vegetal
Oficina Subregional para América Central
Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO)
Panamá
Tel. (507) 314-1460
E-mail: allan.hruska@fao.org

Dr Peter Kenmore
Deputy Director
FAO Plant Production and Protection Division
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel: (+39) 06 570 52188
E-mail: Peter.Kenmore@fao.org

Mr Yongfan Piao
Senior Plant Protection Officer
Executive Secretary of APPPC
Regional Office for Asia and Pacific (RAP)
39 Phra Atit,
Bangkok 10200
Thailand
Tel: 66-2-6974268
Fax: 66-2-6974445
Email: yongfan.piao@fao.org

Dr William Settle
Project Manager
FAO Plant Production and Protection Division
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel: (+39) 06 570 6039
E-mail: william.settle@fao.org

Mr Fawzi Taher
Crop Production and Protection Officer
FAO/SEC, Ankara
Turkey
Tel: +90 312 3079509
E-mail: fawzi.taher@fao.org

Mr Harold van der Valk
Consultant
Vissersdijk 14
4251 ED Werkendam
The Netherlands
Tel: (+31) 183 500410
E-mail: harold.vandervalk@planet.nl

Mr Harry van der Wulp
Senior Policy Officer
FAO Plant Production and Protection Division
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel: (+39) 06 570 55900
E-mail: harry.vanderwulp@fao.org

Mr Gerold Wyrwal
Agricultural Officer
FAO AGPP, Rotterdam Convention
Viale delle Terme di Caracalla
00153 Rome
Italy
Tel: (+39) 06 570 52753
E-mail: gerold.wyrwal@fao.org

Ms Yong Zhen Yang
FAO Joint Secretary/ JMPR & JMPS
Plant Production and Protection Division (AGP)
Room B-755
Viale delle Terme di Caracalla
00153 Rome/Italy
Phone: ++39-06-57054246
Fax; ++39-06-5705-6347/-3224
E-mail: yongzhen.yang@fao.org

WHO SECRETARIAT

Dr Richard Brown
Technical Officer
Chemical Safety Team
Evidence and Policy on Environmental Health Unit (EPE)
Department of Public Health and Environment (PHE)
World Health Organization
Avenue Appian 20, CH-1211
Geneva
Switzerland
Tel: +41-22 791.2755
Fax: +41-22 791.4848
Email: brownri@who.int

Dr Morteza Zaim
Scientist, WHO Pesticide Evaluation Scheme (WHOPES)
World Health Organization
Avenue Appia 20, CH - 1211
Geneva 27
Switzerland
Tel: +41-22 791.3841
Fax: +41 22791 4869
Email: zaimm@who.int

Dr Rajpal Singh Yadav
Scientist, WHO Pesticide Evaluation
Scheme (WHOPES)
Vector Ecology and Management (VEM)
Department of Control of Neglected
Tropical Diseases
World Health Organization
Avenue Appia 20, CH - 1211
Geneva 27
Switzerland
Tel: +41-22 791.2961
Fax:+41-22 791.4869
Email: yadavraj@who.int

Annex 2 – Agenda

1. Panel working procedures [closed session]
2. Opening of the meeting and welcome address
3. Appointment of Chairperson and Rapporteurs
4. Adoption of agenda
5. Introduction of meeting procedure, working arrangements and housekeeping matters.
6. Summary of developments and actions taken after the second joint meeting in October 2008.
7. Highly hazardous pesticides – Status of implementation of recommendations made after the second joint meeting in October 2008.
8. Monitoring implementation of the International Code of Conduct – Results from the 2008 questionnaire.
9. Updating the International Code of Conduct
10. Draft Guidelines under development – for review.
    a. Guidelines on resistance management for pesticides.
    b. Guidelines on good labelling practice for pesticides
11. Draft outlines for Guidelines – for review
    a. Guidelines on quality control of pesticides
    b. Guidelines on pesticide retail establishments
    c. Secondary technical guidelines on pesticide registration
12. Draft Guidelines – status report.
    a. Guidance on pest and pesticide management policy development – agriculture.
    b. Guidelines on pesticide advertising
    c. Guidelines for the registration of pesticides
    d. Outline for guidelines on pesticide legislation
13. Selected FAO and WHO activities to strengthen pesticide management at the national level – Lessons learned and implications for future programmes
14. Synergies with other international instruments and organizations on implementation of the International Code of Conduct
15. Any other matters.
16. Recommendations [open session followed by closed session]

Annex 3 – Terms of reference of the FAO/WHO Joint Meeting on Pesticide Management

The *FAO/WHO Joint Meeting on Pesticide Management* (JMPM) held its first session in 2007, following the signature of a Memorandum of Understanding between FAO and WHO on cooperation in a joint programme for the sound management of pesticides. The JMPM advises on matters pertaining to pesticide regulation, management and use, and alerts to new developments, problems or issues that otherwise merit attention from one or both Organizations. The JMPM consists of members drawn from the *FAO Panel of Experts on Pesticide Management* and the *WHO Panel of Experts on Vector Biology and Control*, which are statutory advisory bodies of the respective Organizations.

Panel members have been selected for their personal expertise and experience in specific aspects of pesticide management, and are appointed in their personal capacity by the Directors General of FAO and WHO. They do not represent the position of governments or institutions they may belong to.

The JMPM will carry out the following tasks:

- counsel FAO and WHO on the implementation of the *International Code of Conduct on the Distribution and Use of Pesticides*;
- review and advise on activities implemented by FAO and WHO to strengthen pesticide management in agriculture, public health and other fields of use, in particular in developing countries;
- assist FAO and WHO in the development of guidelines published in support of the Code of Conduct;
- alert FAO and WHO on new developments or issues related to pesticide use or management which may require attention from one or both Organizations;
- review cases submitted to FAO and/or WHO with respect to observance or non observance of the Code of Conduct;
- advise on any other matters relating to pesticide use or management, at the specific request of FAO and/or WHO.

The JMPM will meet at the request of FAO and WHO. Members may also be requested to carry out activities inter-sessionally, in preparation for or as follow-up to the meetings.

Members of the *FAO Panel of Experts on Pesticide Management* and of the *WHO Panel of Experts on Vector Biology and Control*, and advisors invited to the JMPM, will be required to submit a Declaration of Interests and declare any interests that could constitute a real, potential or apparent conflict of interest, with respect to his/her involvement in the JMPM, between (1) commercial entities and the expert, or his/her partner, personally, and (2) commercial entities and the administrative unit with which the participant has an employment relationship.

Annex 4 – Procedure for the development of guidelines in support of the Code of Conduct (amended version)

This procedure replaces the version published in report of the 2nd Session of the FAO Panel of Experts on Pesticide Management (November 2006).

Note: The "JMPM" are the nominated members of the FAO and WHO Panels of Experts on Pesticide Management. The "observers" are all persons and organizations participating as observers in the JMPM.

Steps in the development of guidelines:

1) The JMPM, with inputs from observers, advises FAO and WHO on the need to develop new guidelines, or update/revise existing ones. This may happen both during a JMPM session or inter-session.

2) On the basis of advice provided under 1) FAO and/or WHO will recruit or appoint a drafter to develop a draft outline of the guideline. JMPM members may also volunteer to draft the guideline, or to closely accompany the drafter, depending on their specific expertise and/or interest.

3) The first outline of the guideline is reviewed by the JMPM and its observers, either in session or inter-session. Both the JMPM and the observers advise FAO and/or WHO on recommended amendments to the draft outline. The JMPM is requested to endorse a final outline of the guideline. The JMPM is also requested to advise on the need for external peer review of the guideline.

4) The drafter recruited/appointed by FAO and/or WHO will elaborate a first draft of the guideline, on the basis of the outline endorsed by the JMPM.

5) If recommended by the JMPM, FAO and/or WHO will arrange for external peer review of the draft guideline

6) The drafter will incorporate the comments provided by the peer reviewers into a revised draft, or reject them while providing justifications. The drafter will also prepare a compilation of the peer review comments and the way he/she has taken them into account in the revised draft, in the form of a comment tracking chart.

7) FAO and/or WHO will circulate the draft guideline, and if available the peer reviews and comment tracking chart, to the JMPM and its observers, well before the next session of the JMPM.

8) The JMPM and its observers, in session, will review the draft guideline. The JMPM will advise FAO and/or WHO by: i.) endorsing the draft guideline; ii.) endorsing the draft guideline, under condition of taking into account certain comments/amendments; or iii.) requesting a revision of the draft guideline, taking into account certain comments/ amendments, and subsequent resubmission to the JMPM.

9) The drafter will finalize or revise the guideline, taking into account the comments/ amendments recommended by the JMPM.

10) [If the guideline has been revised, FAO and/or WHO will resubmit the new draft of the guideline to the JMPM for advice, either at its next session or inter-session.]

11) FAO and/or WHO will publish the guideline.

The guideline drafting process is shown schematically below