



## Global situation of pesticide management in agriculture and public health

Report of a 2018 WHO-FAO survey



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#### **Foreword**

Chemical pesticides are widely being used in agriculture and in public health for the control of pests and disease vectors. However, the harmful side-effects of pesticides are becoming increasingly clear, in terms of effects on human health and the environment, and the development of insecticide resistance in pest and vector populations.

The International Code of Conduct on Pesticide Management provides voluntary standards of conduct for all parties involved in the management of pesticides, from manufacture to application and waste disposal. The Code of Conduct, which was developed jointly by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO), incorporates both agricultural pesticides and public health pesticides.

In support of the Code of Conduct, the FAO/WHO Joint Meeting on Pesticide Management (JMPM) has since 2007 prepared and reviewed a series of guideline documents pertaining to all aspects of the pesticide life-cycle, including but not limited to pesticide registration, risk assessment, efficacy testing, procurement, use and application, and pesticide waste disposal.<sup>2</sup>

Countries are strongly encouraged to adopt the standards set out in the Code of Conduct, and to implement strategies of integrated pest management for control of agricultural pests and integrated vector management for control of vector-borne diseases.

This report provides a contemporary overview of the situation of pesticide management in agriculture and public health across the globe. The results indicate various critical shortcomings. This suggests the need for countries, and programmes alike, to revisit their legal and operational framework for pesticide management in order to improve the efficacy of pesticides and minimize their harmful effects on humans and the environment.

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<sup>&</sup>lt;sup>2</sup> For an overview of these documents, see: Managing pesticides in agriculture and public health: an overview of FAO and WHO guidelines and other resources. FAO and WHO; 2019 (http://www.fao.org/3/ca5201en/ca5201en.pdf).

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The preparation of the questionnaire, analysis of data, and drafting and revision of the report were conducted by Henk van den Berg (consultant, Wageningen University, the Netherlands), in close collaboration with Rajpal Yadav from WHO/NTD, and Beatrice Grenier, Baogen Gu and Eva Kohlschmid from FAO/AGP. Richard Brown, Carmen Bullon and Harold van der Valk are acknowledged for providing valuable comments and suggestions to the report. The study was conducted as part of a WHO project financially supported by the Bill & Melinda Gates Foundation.

#### **Acronyms**

EU European Union

FAO Food and Agriculture Organization of the United Nations

GDP gross domestic product

GHS Globally Harmonized System of Classification

HHP highly hazardous pesticide

IPM integrated pest management

IRM insecticide resistance management

IVM integrated vector management

MRL maximum residue limit

NGO nongovernmental organization

OECD Organisation for Economic Co-operation and Development

PPE personal protective equipment

PPP purchasing power parity

WHO World Health Organization

WHOPES WHO Pesticide Evaluation Scheme

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