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GUIDELINES ON THE MANAGEMENT OF PUBLIC HEALTH PESTICIDES

Report of the WHO Interregional Consultation Chiang Mai, Thailand 25–28 February 2003

World Health Organization
Communicable Disease Control,
Prevention and Eradication
WHO Pesticide Evaluation Scheme (WHOPES)

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1. Introduction

The Interregional Consultation on Development of Guidelines on the Management of Pesticides for Public Health was held in Chiang Mai, Thailand, from 25 to 28 February 2003. The Consultation was attended by 14 representatives of national registration authorities and vector-borne disease control programmes, from 10 Member States, from 4 WHO Regions. The Food and Agriculture Organization of the United Nations (FAO) and the International Programme on Chemical Safety (IPCS) were also represented, as was industry (Public Health Project Team of CropLife International). Vector control advisers from WHO Regional Offices for Africa (AFRO), America (AMRO), South-East Asia (SEARO) and the Western Pacific (WPRO), and the chemical safety adviser from SEARO also attended (see Annex 3, list of participants).

Dr Morteza Zaim, Scientist in charge of the WHO Pesticide Evaluation Scheme (WHOPES), welcomed the participants. He noted the increasing importance of the management of pesticides in the field of public health. This is a consequence both of the dwindling arsenal of safe and cost-effective pesticides and of the increasing challenges faced with their management under decentralized health systems. Moreover, the increasing use of pesticides by individuals and communities for personal protection and vector control requires national policies, legislation, and appropriate guidelines for the safe and effective use of these substances. Dr Zaim thanked the local organizer, the Division of Agricultural Toxic Substances of the Department of Agriculture, Thailand, for support in facilitating the meeting, and reiterated the critical need for intersectoral collaboration between ministries of agriculture and public health in the management of public health pesticides.

Dr Chusak Prasittisuk, Regional Adviser, WHO Regional Office for South-East Asia, also welcomed the participants and read the opening remarks of Dr Uton M. Rafei, Regional Director. In his address, Dr Rafei noted the challenges

associated with the management of public health pesticides, especially as they relate to post-registration monitoring of use and quality control; he requested participants to critically review the prevailing practices in Member countries and assist in development of guidelines for appropriate management of pesticides. He also stressed the need for follow-up with Member States to develop plans of action for implementing the guidelines.

Dr Gero Vaagt, Senior Officer representing FAO/HQ at the meeting, welcomed the collaboration with WHO on management of pesticides, noting the long history of collaboration between the two organizations on this issue, including the Joint Meeting on Pesticide Residues (JMPR) and more recently the Joint Meeting on Pesticide Specifications (JMPS). He also noted the revision of the International Code of Conduct on the Distribution and Use of Pesticides and the timeliness of the Consultation, which would allow changes to the Code to be considered and included in the draft guidelines on management of pesticides in public health.

Dr Nuansri Tayaputch gave the inaugural address and, on behalf of the Director-General of the Department of Agriculture, Thailand, welcomed the participants. She stressed the importance of pesticides as tools for sustainable development and public health. She also noted, however, their potential harmful effects, which may be consequences of the lack of knowledge on their proper use as well as of stringent legislative measures for supervision and management.

The Consultation convened in plenary sessions for comprehensive discussion of aspects of management of public health pesticides, appointing Mr Tan Soo Hian as Chairman and Dr Jorge F. Méndez-Galvan, Mr Tham Ah Seng, and Dr Thilaka Liyanage, as Rapporteurs. The adopted agenda is as shown in Annex 2.

The meeting reviewed and discussed critical issues relating to pesticide management in the African, American, South-East Asian and Western Pacific regions, and drafted the guidelines on management of public health pesticides.

2. Rationale

Chemical control is the most important element in the integrated approach to control of vectors and pests of public health importance. It includes the use of vector control, household and professional pest management pesticides. Diseases such as malaria, Chagas disease, dengue and dengue haemorrhagic fever, onchocerciasis, and leishmaniasis affect the health and well-being of millions of people worldwide and are an impediment to social and economic development. Correctly used, insecticides play an important global role in the prevention and control of these diseases. Since public health pesticides are used in close proximity to human beings, as well as in sensitive ecological areas, their proper management is critical.

The limited financial resources of control programmes for vector-borne diseases, added to the dwindling arsenal of approved safe and cost-effective pesticides, require selective and judicious application of these chemicals in the context of integrated vector management (IVM). Management of insecticide resistance, which has significant impact on the availability of vector control tools, is also of paramount importance. Intersectoral collaboration of ministries of health with other ministries (e.g. agriculture and environment) and other relevant partners, including industry, is essential in this regard.

The increasing complexity of evaluation and assessment of pesticides and management of pesticide use requires substantial human and financial resources, as well as an adequate infrastructure. Regulations for the control of pesticides exist in most countries but enforcement of these regulations is frequently ineffective. In general,

post-registration monitoring of insecticide use/application and of accidental poisoning is inadequate in most Member States.

Many countries are undergoing health sector reforms that pose new challenges in the selection, purchase, procurement, use, and monitoring of pesticide application. A specific guideline to assist Member States in this important area is now needed. One of the critical issues is quality control of pesticides. According to WHO (WHO, 2001a), some 30% of pesticides marketed in developing countries for agricultural and public health use, with an estimated annual market value of US$ 900 million, do not meet internationally accepted quality standards. These pesticides frequently contain hazardous substances and impurities that have already been banned or severely restricted in some countries; they pose a serious threat to human health and to the environment. Purchase of such pesticides could also result in the waste of funds because of lack of efficacy and contribute to the accumulation of obsolete pesticide stocks in developing countries.

To address the complexity of hazards related to different pesticide manufacturing processes, which generate different impurity profiles and varying human and environmental risks, the Food and Agriculture Organization of the United Nations (FAO) and WHO have developed a “new” procedure for