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OECD STRATEGIC APPROACH IN PESTICIDE RISK REDUCTION

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OECD STRATEGIC APPROACH IN PESTICIDE RISK REDUCTION

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Series on Pesticides

No. 48

**OECD STRATEGIC APPROACH
IN PESTICIDE RISK REDUCTION**

IOMC

INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS

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FOREWORD

The OECD Pesticide Risk Reduction Steering Group (RRSG), a sub-group of the Working Group on Pesticides (WGP) that oversees that OECD Pesticide Programme (www.oecd.org/env/pesticides), agreed to prepare this **OECD Strategic Approach** considering the fact that different experiences and situations in OECD countries needed more strategic discussions to exchange ideas and to facilitate the development and implementation of risk reduction options, policies and practices. Germany led the preparations of this document.

This OECD Strategic Approach has summarized the main outcomes from relevant RRSG Seminars since 2003 which focused on single components in pesticide risk reduction (e.g. container management, application technology or spray drift). Also, the Approach has targeted national action plans or programmes to accelerate IPM implementation as the leading instrument to reduce risks arising from pesticides.

The preparation of this document was directly linked to the risk reduction activity of developing a “Strategic approach in Pesticide Risk Reduction” (also referred to as preparing a “Compilation of the risk reduction measures recommended by the RRSG”) that is included in the RRSG work programme for 2009-2012 under the objective to “*Create strategic opportunities that facilitate risk reduction nationally and in other arenas*”. It is also based on the *RRSG terms of reference* (see Annex 1).

It is expected that the OECD Risk Reduction Steering Group will revisit this document in the future, once the OECD Pesticide Programme has addressed some new topics and has developed recommendations in more pesticide risk reduction areas.

The draft Strategic Approach was approved by the 24th meeting of the Working Group on Pesticides that took place on 29-30 June 2009.

The Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology of the OECD agreed that this document be unclassified and made available to the public. It is being published on the responsibility of the Secretary-General of the OECD.

OECD Strategic Approach in Pesticide Risk Reduction

OECD Pesticide Risk Reduction Steering Group

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BACKGROUND

Different International Strategic Approaches

1. Pesticides are widely used in agriculture and have considerable benefits, but pesticides also present risks to human and animal health and to the environment. Therefore, high standards in their registration and sustainable use and an expansion of Integrated Pest Management (IPM) strategies are necessary. To reach these objectives worldwide, different internationally acting driving forces support or initiate relevant policy decision-making processes, e.g.:

- **OECD** with its *Policy principles* in general, and its Environment Directorate with meetings and documents *SERIES ON PESTICIDES* in particular;
- **FAO** with the *International Code of Conduct on the Distribution and Use of Pesticides*; or
- the **European Union**'s activities to implement the *Thematic Strategy on the Sustainable Use of Pesticides* published in July 2006 to achieve environmental objectives set out in the 6th European Environmental Action Programme.

Key Elements Contributing to Pesticide Risk Reduction

2. There are four core elements identified which contribute to the reduction of risks arising from the use of pesticides, in particular to human and animal health and to the environment:

- (1) **high standards** in legally based registration and placing on the market of active substances and products,
- (2) a package of **mandatory and voluntary provisions** and requirements for proper use of pesticides,
- (3) **promotion of alternative methods** such as non-chemical plant protection measures, wherever possible, and
- (4) **control and monitoring** through implementation of risk indicators to describe progress of risk reduction programmes.

The “Necessary Minimum” in Pesticide Use

3. Based on different sets in a scientific evaluation, pesticides are only registered and placed on the market provided that - when properly used - they have no adverse effects on human and animal health and only acceptable effects on the environment. Sustainable use of pesticides contributes to further risk reduction especially aiming at a significant reduction of misuses, better compliance with the existing regulations and uses only at the *necessary minimum*. The *necessary minimum* can be described as pesticide use intensity where optimum efficacy is combined with the minimum quantity necessary. It depends on application parameters (pesticide selected, dosage, time, application equipment available), local conditions and using alternatively reliable non-chemical measures.

OECD and EU Pesticide Risk Indicators to Control Progress and Success

4. To measure the status-quo of risks and the progress in risk reduction programmes, risk indicators have been developed and used in many countries. In this context, since 1995 the OECD Pesticide Programme has published a series of publications about pesticide risk indicators, such as the reports of the projects on Aquatic Risk Indicators (ARI) and on Terrestrial Risk Indicators (TERI), the report of the joint OECD/EC Seminar on HARmonised environmental Indicators for pesticide Risk (HAIR). The EU HAIR project (<http://www.rivm.nl/rvs/overige/risbeoor/Modellen/HAIR.jsp>) to harmonize risk indicators in the EU built on these activities and developed a series of new pesticide risk indicators, which now have to be validated.

National Plans

5. With regard to development and implementation of national plans or programmes for risk reduction, many countries have already gained good experiences and impressive results. In March 2007, an expert meeting about national action plans or programmes in the EU, where examples of different Member States were presented, took place in Berlin (for documents: <http://www.jki.bund.de/>).

6. National action plans or programmes as strategic instruments take into consideration that non-compliance with the existing legal framework for registration and use of pesticides is observed and MRLs are exceeded.

7. National action plans or programmes that have been already implemented or planned in several OECD countries are aiming at setting targets, measures and timetables to reduce risks and impacts of pesticide uses to human health and to the environment and at encouraging the development and introduction of IPM as well as alternative approaches or techniques.

INSTRUMENTS FOR RISK REDUCTION IN GENERAL

8. Some possible measures for a significant reduction of risks arising from the use of pesticides can be identified as follows:

- **Registration**
 - ✓ approval of a pesticide is granted only after comprehensive and satisfactory scientifically-based evaluation
 - ✓ proper uses of pesticides have no adverse effects on human and animal health, risks to the environment are acceptable
 - ✓ new findings or knowledge related to risk can lead to re-evaluation
- **Compliance**
 - ✓ full compliance with all regulation issues is crucial for safe handling and use of pesticides
- **Integrated Pest Management (IPM)**
 - ✓ the key strategy for a sustainable use of pesticides worldwide
 - ✓ implementation of general principles of IPM as minimum requirement
 - ✓ voluntary implementation of crop or sector specific guidelines of IPM supported by establishing appropriate incentives and supporting systems to encourage users at national level
 - ✓ anti-resistance strategies for pesticides are very important part of IPM strategies
- **Training and certification schemes for users, advisors and distributors**
 - ✓ only well educated and informed users in the whole field of plant protection are able to handle and use pesticides as sustainable as possible
 - ✓ implementation of mandatory/voluntary training programmes for safe handling and sustainable use of pesticides, remnants, waste and application equipment as well as pertinent knowledge on IPM
 - ✓ easily accessible information and transfer of appropriate updated knowledge
 - ✓ safeguarding of secure compliance with national regulations
- **Application technology and inspection of spraying equipment**
 - ✓ mandatory/voluntary certification of new equipment
 - ✓ mandatory/voluntary inspection of spraying equipment in use at regular intervals
 - ✓ development and use of better application technology and equipment
- **Extension services**
 - ✓ maintenance and enhancement of independent advisory services supporting users of pesticides in particular with emphasis on IPM strategies
 - ✓ systems for education and training of advisors and extension officers
- **Hot-spot management**
 - ✓ protection of sensitive crops or areas by better monitoring and specific risk management strategies (e.g. specific buffer zones, restrictions for the use of certain pesticides, special training for users)
 - ✓ enhanced dissemination and use of monitoring results

- ***Record keeping***
 - ✓ records of pesticide use on farm scale and national statistics are an important tool for all kinds of measures in national action plans and compliance programmes
- ***Obsolete pesticides and used containers***
 - ✓ implementation of waste treatment systems to collect obsolete pesticides and empty containers
- ***Research & development***
 - ✓ development of technologies and implementation of programmes to support innovative technologies especially aiming at IPM measures and the reduction of risks
 - ✓ expansion of international co-operation, joint research activities and spreading of excellence (e.g. www.iobc-wprs.org, www.endure-network.eu)
 - ✓ scientific support of governance processes
- ***Information programmes***
 - ✓ implementation of systems to inform the general public and experts about risks and benefits of pesticide uses
 - ✓ information about research and development in plant protection and about sustainability of IPM strategies.

NATIONAL ACTION PLANS OR PROGRAMMES

9. National action plans or programmes are directed to support the implementation of IPM strategies, compliance with existing regulations and a sustainable use of pesticides. Such plans or programmes should balance between economic, ecological and socio-ecological interests of all stakeholders in society. Nevertheless, they should primarily be considered as an umbrella for concerted actions to implement risk reduction strategies and measures as well as control and communication tools.

10. Development and implementation of such plans or programmes should consider the following key elements ensuring the widespread adoption throughout society:

- ***Implementing the instruments***
Implementation of key elements for risk reduction, such as Integrated Pest Management (IPM) as common practice, compliance programmes, inspection of application equipment
- ***Defining targets and setting milestones***
Identification and agreement about goals, priority objectives, milestones and measures for risk reduction and progress indicators
- ***Supporting research***
Identification of limitations and main questions for research and development of innovative technologies and measures (e.g. decision support systems and precision farming);
Plans and programmes to initiate or support such research
- ***Controlling and monitoring***
Use of information and knowledge generated in a network of demonstration and reference farms
- ***Encouraging stakeholder participation***
Participation of stakeholders (e.g. farmers, industry, retailers, extension services, research institutes, authorities, consumer protection and environment NGOs) should be ensured from the beginning to the end of the process.

ANNEX 1

Terms of Reference

OECD Pesticide Risk Reduction Steering Group (Sub-group of the OECD Working Group on Pesticides)

Goal: to promote pesticide risk reduction

Objectives

The Steering Group will provide a forum for countries to learn from one another, contribute their experience, and work together in order to accomplish the following objectives:

- create strategic opportunities that facilitate risk reduction nationally and in other arenas
- give international credibility to risk reduction tools and measures
- reach out to other groups in order to share information, identify areas of common interest and encourage risk reduction
- promote communication on risk reduction

Activity Areas

The Steering Group will:

1. organise discussions, seminars or workshops on topics related to risk reduction
2. explore options and create opportunities for outreach to important stakeholders and fora
3. propose strategic options for risk reduction
4. work on ways to evaluate progress in risk reduction

Participation

The Steering Group will be comprised of representatives of the OECD countries, the European Commission, and invited experts. The Group will be headed by a chairman and vice-chairman.

The Steering Group will maintain links within OECD and with other international groups that work in related areas.

The Steering Group will meet approximately once a year.