

ACTIVITIES ON NANOTECHNOLOGIES IN THE IOMC ORGANIZATIONS

This paper has been prepared by the OECD Secretariat at the request of all IOMC organisations. It has been prepared for Forum VI of the Intergovernmental Forum on Chemical Safety (IFCS). It summarises the activities related to nanotechnologies of the IOMC organizations based on input from each.

A BRIEF INTRODUCTION TO THE IOMC

The Inter-Organization Programme for the Sound Management of Chemicals (IOMC) was established in 1995 to strengthen cooperation and increase coordination in the field of chemical safety. The seven Participating Organizations (POs) of the IOMC are:

- the Food and Agriculture Organization of the United Nations (FAO);
- the International Labour Organization (ILO);
- the Organisation for Economic Co-operation and Development (OECD);
- the United Nations Environment Programme (UNEP);
- the United Nations Industrial Development Organization (UNIDO);
- the United Nations Institute for Training and Research (UNITAR); and
- the World Health Organization (WHO);

In addition, two observer organizations also participates in the IOMC:

- the United Nations Development Programme (UNDP); and
- the World Bank

The IOMC organizations hold regular meetings together to ensure co-ordination. The status of activities related to nanotechnology has been discussed at these meetings.

IOMC: CURRENT ACTIVITIES ON NANOTECHNOLOGIES

FAO/WHO

International Meeting on Food Safety Implications of Nanotechnology Applications in the Food and agriculture Sectors

International harmonisation of food safety measures is recognised as a crucial element in the facilitation of food trade. It is essential therefore that there be international input into the discussion of concerns and possible approaches for ensuring good governance. The reviews and consultations carried out at national and sub-regional levels have been fruitful and guarantee a substantial basis for deliberation at international level.

The international leadership provided by the Joint FAO/WHO Food Standards Programme is widely recognized. It provides a truly international and neutral forum for consideration of the food safety issues raised by nanotechnology and for agreement on coherent and collaborative approach for addressing them.

Meeting Objectives

The major aims of this meeting are:

- to develop a common view of what the main food safety concerns associated with actual and anticipated nanotechnology applications in the food and agriculture sectors;
- to share lessons learned by those countries that have already initiated programmes to address concerns;
- to agree on priority actions that are needed to control possible food safety hazards associated with nanotechnology applications in food and agriculture; and
- to develop guidance on the possible roles of FAO and WHO in promoting sound governance of food safety issues linked to nanotechnology applications.

ILO

At the recent ILO Meeting of Experts to Examine Instruments, Knowledge, Advocacy, Technical Cooperation and International Collaboration as Tools with a view to Developing a Policy Framework for Hazardous Substances (Dec 2007), it was decided that the ILO should continue monitoring national and international activities related to safety in the use of new technologies, such as nanotechnologies and possibly contributing to them through ILO participation in relevant intergovernmental groups.

OECD

The OECD has two activities related to nanotechnologies: i) the activities of the Working Party on Manufactured Nanomaterials; and ii) the Working Party on Nanotechnology.

These co-ordinated and mutually supporting efforts are intended to provide the conditions for optimal development of this range of new technologies.

OECD's Working Party on Manufactured Nanomaterials (WPMN)

The Working Party on Manufactured Nanomaterials (WPMN) was established in 2006 by OECD's Chemicals Committee. The objective of the WPMN is to promote international co-operation in human health and environmental safety related aspects of manufactured nanomaterials (MN), in order to assist in the development of rigorous safety evaluation of nanomaterials. The work is being implemented through eight projects listed below:

- Development of a Database on Human Health and Environmental Safety Research;
- Research Strategies on Manufactured Nanomaterials;
- Safety Testing of a Representative Set of Manufactured Nanomaterials;
- Manufactured Nanomaterials and Test Guidelines;
- Co-operation on Voluntary Schemes and Regulatory Programmes;
- Co-operation on Risk Assessment;
- The role of Alternative Methods in Nanotoxicology
- Exposure Measurement and Exposure Mitigation

Detailed information can be found at: <http://www.oecd.org/env/nanosafety/>

OECD's Working Party on Nanotechnology (WPN)

The Working Party on Nanotechnology (WPN) was established by OECD's Committee for Science and Technology Policy in 2007. The objective of the WPN is to advise on emerging policy-relevant issues in science, technology, and innovation related to the responsible development of nanotechnology. The WPN seeks to promote international co-operation that facilitates research, development, and the responsible commercialization and utilisation of nanotechnology.

Currently, the WPN has six projects in its programme of work:

- Statistics and Measurement;
- Impacts and the Business Environment
- International R&D collaboration
- Communication and public engagement
- Policy Dialogue -
- Global Challenges: Nano and Water

Detailed information can be found at: <http://www.oecd.org/sti/nano>

Note: OECD's work is covered in more detail in the document IFCS/Forum-VI/04 INF.

UNEP

Within the United Nations Environment Programme (UNEP), Chemicals Branch of the Division of Technology, Industry and Economics (DTIE) promotes sustainable development by catalyzing global actions for the sound management of chemicals worldwide. The main priorities include activities related to specific chemicals such as mercury, lead and cadmium as well as persistent organic pollutants together with support to developing countries and countries with economies in transition in the sound management

of chemicals by providing sound scientific and technical basis through training and capacity building on existing chemicals and emerging chemicals. So far, UNEP has not taken an active role with respect to nanotechnologies. However, since nanoparticles are being recognized an emerging environmental issue UNEP will continue to address the complex implications related to the possible broad dissemination of this technology with a view to optimize its benefits and to minimize the environmental risks in support of sustainable development,

A first output has been published in the UNEP GEO 2007 Yearbook with the chapter entitled “Emerging Challenges: Nanotechnology and the Environment” [for download see http://www.unep.org/geo/yearbook/yb2007/PDF/7_Emerging_Challenges72dpi.pdf]. The pros and cons from innovative medical techniques to savings on materials and energy as well as advances in detection and remediation of pollution are highlighted. However, according to UNEP, the environment impacts are largely unknown and controls typically absent. Therefore, UNEP concludes that nanotechnology issues have to be taken up through more systematic research and sector-specific policies. Besides cooperation with international partners and stakeholders, the SAICM approach may provide a useful platform for such an undertaking.

For further information on SAICM, please visit: <http://www.chem.unep.ch/saicm/>

UNITAR

At the current, time UNITAR does not have any activities which are specifically related to nanotechnology. However, it is following developments carefully including those of the other IOMC Participating Organizations. If it becomes clear that there is a need, it may initiate activities related to nanotechnology in the future. In line with UNITAR’s usual activities, such work would be related to awareness raising and capacity building for developing countries and countries in transition.

WHO

The WHO Collaborating Centres for Occupational Health discussed the work on occupational health and safety risks of nanotechnology at a meeting on 2 November 2007 in Helsinki. The main conclusions are that the lessons learned from the first five years of studying occupational health and safety risks and developing national reports need to be shared with other countries. The collaborating centres agreed to summarize these lessons learned in the United States, United Kingdom, Finland, Japan, Singapore, Italy, and the Netherlands in a report to be developed under the leadership of WHO. The report would also help countries with emerging and transitional economies to incorporate occupational health and safety issues into their national strategies for the development of nanotechnologies.

ADDITIONAL INFORMATION

Detailed information on the IOMC can be found through the following website:
<http://www.who.int/iomc/en>

CONTACT INFORMATION

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