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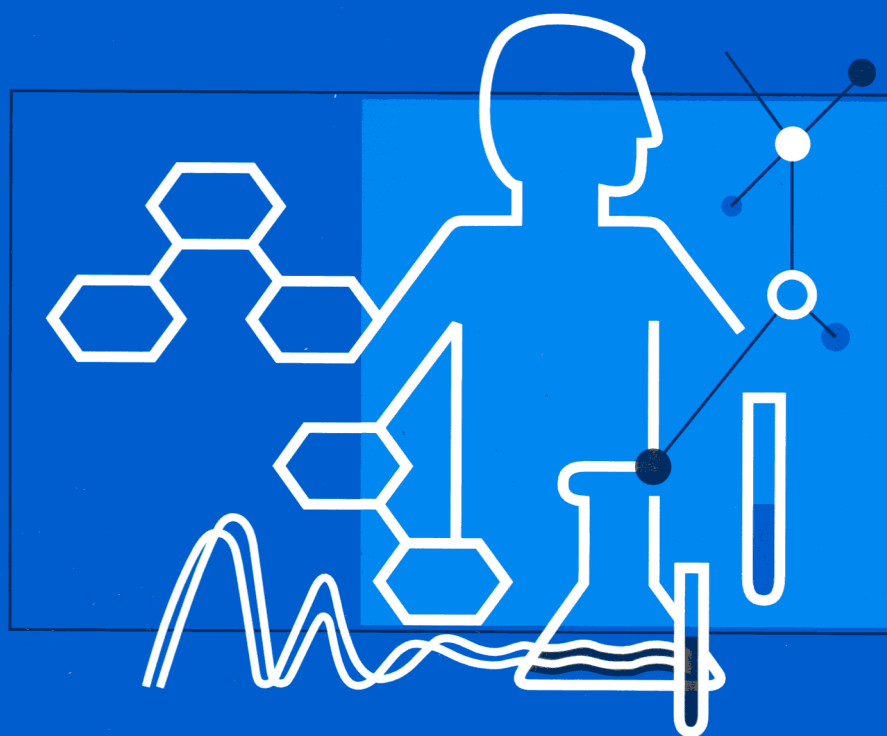
UNITED NATIONS ENVIRONMENT PROGRAMME/INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY

Training Module No. 3

CHEMICAL RISK ASSESSMENT

HUMAN RISK ASSESSMENT,
ENVIRONMENTAL RISK ASSESSMENT
AND ECOLOGICAL RISK ASSESSMENT

1999



IOMC

INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS
A cooperative agreement among UNEP, ILO, FAO, WHO, UNIDO and OECD

WORLD HEALTH ORGANIZATION

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**Produced under the joint sponsorship of the United Nations Environment Programme,
the International Labour Organisation and the World Health Organization,
and within the framework of the Inter-Organization Programme
for the Sound Management of Chemicals**

The International Programme on Chemical Safety (IPCS), established in 1980, is a joint venture of the United Nations Environment Programme (UNEP), the International Labour Organisation (ILO), and the World Health Organization (WHO). The overall objectives of the IPCS are to establish the scientific basis for assessing the risk to human health and the environment from exposure to chemicals, through international peer-review processes, as a prerequisite for the promotion of chemical safety, and to provide technical assistance in strengthening national capacities for the sound management of chemicals.

The Inter-Organization Programme for the Sound Management of Chemicals (IOMC) was established in 1995 by UNEP, ILO, the Food and Agriculture Organization of the United Nations, WHO, the United Nations Industrial Development Organization, and the Organisation for Economic Co-operation and Development (Participating Organizations), following recommendations made by the 1992 United Nations Conference on Environment and Development to strengthen cooperation and increase coordination in the field of chemical safety. The purpose of the IOMC is to promote coordination of the policies and activities pursued by the Participating Organizations, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment.

ACKNOWLEDGEMENT

The International Programme on Chemical Safety (IPCS) is a joint venture of the United Nations Environment Programme (UNEP), the International Labour Organisation (ILO) and the World Health Organization (WHO). Amongst its many activities are training programmes on risk assessment and risk management of chemicals for which a series of Training Modules is being developed.

This Training Module on Risk Assessment was prepared by Dr J.H. Duffus and Dr M.V. Park, The Edinburgh Centre for Toxicology, Edinburgh, U.K. The technical development, field testing, editing and publication of the Module has been coordinated by UNEP Chemicals (IRPTC), Geneva, Switzerland, as UNEP's contribution to the training activities being conducted by the IPCS. No language editing of the Module has been conducted by the IPCS Central Unit.

The draft Training Module was tested at a series of IPCS Training Courses on Toxic Chemicals, Environment and Health - Dhaka, Bangladesh, March 1997; Bandung, Indonesia, May 1997; Colombo, Sri Lanka, July 1997; Islamabad, Pakistan, October 1997; Mukono, Uganda, March 1998; Harare, Zimbabwe, March 1998; Montevideo, Uruguay, November 1998; Buenos Aires, Argentina, November 1998 - with financial support from the Government of the Kingdom of the Netherlands, and at two workshops, namely: the National Workshop on Chemical Risk Assessment, Moscow (Golitsino), Russian Federation, October 1997; and the Subregional Workshop on Chemical Risk Assessment, Bratislava (Senec), Slovakia, November 1997. Funds were provided by the Government of the Russian Federation and the Government of Austria.

The IPCS gratefully acknowledges the work undertaken by the authors, Dr Duffus and Dr Park, and by UNEP, and thanks all who helped in the preparation and finalization of this book for their efforts. Financial support for the publication was provided by the Netherlands Ministry of Development and Cooperation under the auspices of the IPCS Project on National Training Activities for Developing Countries on Toxic Chemicals, Environment and Health.

Contents

	Page
Section A: Human Risk Assessment	1
Section B: Environmental Risk Assessment	107
Section C: Ecological Risk Assessment	177