

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR EUROPE

WELTGESUNDHEITSORGANISATION
REGIONALBÜRO FÜR EUROPA



ORGANISATION MONDIALE DE LA SANTÉ
BUREAU RÉGIONAL DE L'EUROPE

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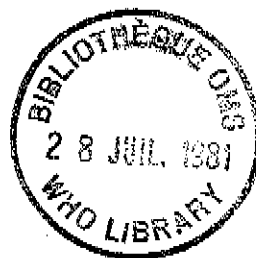
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EUROPEAN COOPERATION ON
ENVIRONMENTAL HEALTH ASPECTS OF
THE CONTROL OF CHEMICALS:
PROPOSED UNDP/WHO PROJECT

Report on a Consultation

Copenhagen
20-22 August 1979



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1. Opening of the Consultation

The Consultation, convened by the WHO Regional Office for Europe to discuss the proposed UNDP/WHO project, was attended by 12 advisers from 12 European countries and by 5 representatives of the United Nations and other international organizations (Annex I). All the countries eligible for UNDP support were represented, apart from Portugal and Romania, which had, however, expressed great interest in the proposal.

Dr Leo A. Kaprio (Regional Director, WHO) welcomed the participants to the meeting. He explained that while the prevention and elimination of communicable diseases remained a major priority for WHO, increasing importance was now being accorded, particularly in the European Region, to noncommunicable diseases and to the potential effects of environmental factors, including chemicals, on human health. Chemical control was a complex problem as it involved all aspects of modern industrialized society, and there must, therefore, be full understanding and cooperation by all concerned.

WHO had been involved in the evaluation of effects of chemicals on health, in association with the other relevant United Nations agencies, for over 20 years. The project to be discussed was an important part of the International Programme on Chemical Safety (IPCS), for which a central coordinating unit was being established in Geneva. In the programme formulation, stress had been laid on the role of WHO regional offices in the fields of (a) technical cooperation, (b) contingency planning for, and response to, emergencies and (c) the development of trained manpower. Financial support for the preliminary phase of the project had already been provided by UNDP, and it was hoped that support would be extended to cover the operational phase.

Many countries had already expressed considerable interest in the project, and it was hoped that the meeting would produce definite recommendations for its implementation.

Mr J.I. Waddington (WHO Regional Office for Europe) described the expansion of the environmental health programme of the Regional Office during the last few years. The Office was now concentrating on the problems of industrial society and the programme, which had previously been sectorial in nature, was now being approached holistically. Such an approach had been found necessary in problems associated with chemicals.

To facilitate that broad approach the IPCS was being developed, with a strong expression of support by the World Health Assembly in May 1979. It was realized that the IPCS would require the participation of (a) leading institutions and institutional networks and (b) other relevant United Nations agencies, particularly as the whole problem of toxic chemicals had implications other than those related to health. The problem was complex, with many diverse aspects which would have to be harmonized. The IPCS was particularly relevant to the European Region which had a high proportion of the world's chemical industry, involving all aspects of trade and use of toxic materials.

UNDP was now supporting regional programmes from which several countries could benefit. Control of environmental health aspects of the use of toxic chemicals was a worthwhile subject for such regional cooperation. An encouragingly large number of countries had already indicated their support, and the main task of the meeting was therefore to discuss the content of the project, order of priorities, time-scale, modus operandi, and the link-up with other agencies' activities. Following the meeting, the project document would be submitted to UNDP, while the report would be submitted to the WHO Regional Committee, from which a relevant resolution was expected to emerge. It was hoped that the project could commence in January 1980 and, from the outset, would be a logical and important component of the IPCS.

Dr L. Ochocki, Mr M. Yeroulanos and Dr L.J. Saliba were elected Chairman, Vice-Chairman and Rapporteur.

2. Adoption of the agenda

An agenda for the meeting was adopted (Annex II).

3. Scope and purpose of the Consultation

3.1 Background

Dr D.M. Ferguson (WHO Regional Office for Europe) gave a brief outline of the scope and purpose of the Consultation, and briefly reviewed the situation regarding toxic chemicals in the environment. There was widespread interest in the control of chemicals, and concern was not focused on any one group of substances, but on many different categories. Although most countries had legislation in the field of chemical control, there was a need to ensure greater consistency in its scope and content. Where such legislation was still in course of preparation, account should thus be taken not only of the needs and resources of the countries concerned, but also of relevant international experience. In the context of resources, training was required, for example, in the field of environmental impact assessment, to ensure the provision of adequately qualified personnel to aid decision makers. There was also the need for public education to create a better sense of perspective in appraising the risks associated with chemical production and use.

The objectives of the project were to promote (a) a greater degree of national self-sufficiency, and (b) the highest possible degree of regional collaboration.

Problems were evident in many spheres, including pesticide registration, use, labelling and residue analysis; disclosure of the composition of imports; and waste disposal. Most epidemiological studies performed to date had concentrated on occupational rather than general population hazards. More consistent methodologies in epidemiological studies were required, particularly when they were undertaken by a number of countries. Similarly, there was a need for the development of methods and systems to meet chemical emergencies, and to increase the availability of trained manpower. In the last respect, the problem was both qualitative and quantitative, the shortage of toxicologists and related personnel being particularly evident.

3.2 Country situations

Participants then presented a brief outline of the situation currently existing in their countries in the control of toxic chemicals. In general, control problems resulted from industrial development and pesticide use. In all countries, various legislative measures covering a wide range of chemicals were either operative or planned, although in many instances their completeness or efficacy was a matter for concern, in terms of recognized gaps, fragmentation or lack of necessary mechanisms for enforcement. Specific problems encountered in many countries included one or more of the following:

- (a) lack of uniform chemical control systems;
- (b) lack of standardization of analytical methods;
- (c) difficulties in the selection of action priorities;
- (d) inadequacy of legislation to meet new situations resulting from increasing industrialization;

(e) inadequate information on chemicals (particularly new), toxic wastes and their effects;

(f) lack of expertise/material resources, leading to difficulties in the performance of monitoring and of environmental impact assessment;

(g) problems in public education, both sectorial and general;

(h) difficulties related to existing coordinating/administrative mechanisms.

Most participants stressed the value of regional cooperation, which would afford many advantages, such as exchange of experience, information acquisition and exchange, better training facilities, and a more harmonized and coordinated approach to problems, including legislation and contingency planning.

3.3 International activities

The representatives of the various international organizations present described their role and current activities in relation to the project.

The representative of the International Labour Organisation (ILO) expressed satisfaction with the important component relating to workers. ILO supported the project, and would be willing to contribute to those aspects relevant to occupational health and the working environment.

The representative of the United Nations Economic Commission for Europe (ECE) expressed his organization's willingness to support the project. He described ECE's current work in preparing a survey on toxic chemical control legislation and in the field of low and non-waste technology.

The representative of the Organisation for Economic Co-operation and Development (OECD) described that body's work in dealing with problems encountered in the use of toxic substances, which had extended over the last ten years. He outlined the various activities pursued, including the establishment of various committees on aspects of the chemical problem, including the development of testing procedures. By 1977, eight Member States had introduced legislation on chemical control, and one of the objectives of OECD's work was to influence its implementation in such a way as to minimize duplication of work and costs, and avoid unnecessary barriers to trade.

The representative of UNDP explained the general policy followed by his organization in the funding of different types of projects. In the present case, the needs of assistance were of such a nature as to lend themselves very well to a regional approach. However, as the execution of the activities would necessarily take several years, and there was no reassurance on the continued availability of UNDP funds after 1981, it was considered essential to have continued commitments by the governments concerned to support the project after its termination.

The Director of the International Register of Potentially Toxic Chemicals (IRPTC), in his statement on behalf of the United Nations Environment Programme (UNEP), recalled UNEP's deep interest in the various aspects of the problem of hazardous chemicals, and support of the work of the international organizations in their control. UNEP attached considerable importance to the IPCS and was willing to cooperate with WHO in the new endeavour, but would also like to see it widened to include the effects of chemicals on nonhuman targets. He then described the work of the IRPTC. Its objectives had been approved by the Governing Council of UNEP at its sixth session in 1978 and

were being achieved through three different types of activities, namely the establishment of information networks; collaboration with institutions and programmes concerned with the evaluation of environmental risks; and dissemination of data on chemicals received from various sources.

Dr V.B. Vouk (WHO headquarters) gave details of the IPCS, which was primarily concerned with human health, although consideration was also being given to other environmental aspects. He explained the background to the IPCS, in relation to the work of WHO and joint activities with other agencies, and described its components and outputs, structure and mechanisms, and the resources required. To date some 50 countries, from all 6 WHO regions, had expressed active interest in the IPCS. The largest response had been from the European Region.

4. Project proposal

Dr A. Gilad (WHO Regional Office for Europe) presented a draft project document for discussion. After explaining the logic and rationale behind the proposal, he described the objectives listed, the activities concerned, the expected outputs and the proposed institutional framework. At the present stage, the discussions should focus on those aspects as it was too early to prepare a work plan. The details would have to be completed at a later stage, after the project had been launched. It was estimated that for the first 2 years of operation, a sum of money of the order of US\$ 1 million from UNDP would be needed to mount a meaningful effort.

The meeting then proceeded to a detailed discussion of the project document, including reference to:

- (a) its general format;
- (b) the objectives and justification of the project as presented;
- (c) the proposed activities and outputs.

It was the general feeling of the meeting that the list of proposed activities was comprehensive, and that the document as a whole was acceptable, subject to certain modifications. Specific modifications suggested were: (a) clarification of the fact that the project would form part of the overall IPCS and (b) development of optimum collaboration with other international and intergovernmental organizations, to ensure maximum harmonization of effort and avoidance of overlap. In particular, it was considered that cooperation on the following lines would greatly benefit the regional component of the IPCS.

- (1) The IRPTC could serve as a leading institution in the field of data handling.
- (2) UNEP's Global Environmental Monitoring System (GEMS) should be fully utilized in the monitoring aspects of the project.
- (3) It would be of great value if the results of work by OECD on toxic chemicals were made available for the project, and if cooperation were established in the respective activities undertaken.
- (4) The activities of ILO, particularly under the International Programme for the Improvement of Working Conditions and Environment and the proposed International Occupational Safety and Health Alert System, would be relevant to the work of the project, and specific arrangements for collaborating efforts with ILO should be formulated at the appropriate time. It was suggested that fellowships in the field of the working environment might be made available within the ILO regular budget for technical cooperation;

(5) The involvement of ECE could be strengthened. Senior Advisers to ECE Governments on Environmental Problems, in their meeting of 19-23 February 1979, had referred to relevant work on the control of toxic chemicals and toxic wastes performed by international organizations, such as UNEP, WHO and OECD, and expressed the view that ECE should identify its specific role. They had also suggested that the regional component of the IPCS could serve as a basis for defining the ECE work in that context.

Other modifications proposed are included in the list of recommendations given later in the report.

5. Priorities

The meeting discussed the objectives and activities listed in the project document, with a view to the possible determination of priority areas. A number of participants gave their views on what parts of the project they considered as deserving priority. A general consensus emerged that the training component should perhaps have the highest overall priority. Although the priorities accorded to the other components varied somewhat from country to country, all were considered useful and valid. It was generally recognized that all the objectives were, to varying degrees, interdependent. A number of participants, from the countries eligible for UNDP support and other European countries, presented their views, both orally and in writing, on the details and mechanics of various activities outlined in the project document, which could be implemented when the project entered its operational phase.

6. Institutional and organizational framework

The meeting discussed the institutional and organizational framework of the project. With regard to an operational headquarters, it was generally felt that the project should be based at the WHO Regional Office in Copenhagen for the first few years. As the primary aim of the project was to strengthen institutional reserves in the participating countries, national institutions would be designated to cover particular subject areas. The general organizational framework described in the project document was generally approved, subject to certain modifications (detailed in the recommendations below), and a number of participants indicated fields of activity in which their countries/institutions were in a position either to take a leading role, or to contribute through the training courses and similar facilities already existing.

With regard to overall coordination of the project, it was agreed that a steering committee formed of government-nominated representatives from all participating Member States should be established. That would not preclude the possibility of setting up ad hoc groups on a selective basis as necessary.

7. Conclusions

Based on a review of national programmes for control of toxic chemicals, presented at the Consultation, and on a thorough appraisal of the scope and development of current and planned international activities on the subject, the participants expressed their interest in, and their support for, the project. Various alternative titles were proposed, such as (a) regional project on chemical safety, (b) regional project on chemical safety in the human environment, and (c) regional cooperation on health and environmental aspects of the control of chemicals.

The meeting agreed that:

(a) The principal fields of European regional cooperation (within the framework of the IPCS) could be delineated as:

- (i) technical cooperation;
- (ii) contingency planning and response to emergencies;
- (iii) training and manpower development.

(b) The outputs from the project would be beneficial not only to participating countries, but also to those outside the European Region, especially the developing countries.

(c) Rapid implementation of the IPCS as a whole was extremely important as it would benefit implementation of the European regional component.

8. Recommendations

Following the pattern of discussions adopted by the meeting, the recommendations were subdivided into two sets, the first relating to the general concept and approach to be taken in the formulation of the project, and the second to the project document.

8.1 General recommendations

The meeting recommended that:

1. The creation of a framework for cooperation among European countries on chemical safety should proceed with all possible speed. Cooperation in that field was considered indispensable, as no one country was in a position to deal with all the problems. Consequently, the participation of all Member States was extremely important.
2. The process of appraisal and approval of the project, for which UNDP support was being sought, should be urgently pursued in order to ensure that all European countries could participate and achieve the same level of cooperation; similarly, assistance should be sought from other relevant organizations.
3. In order to achieve full cooperation and participation of European countries not eligible for UNDP support, the project should be closely linked with the WHO European regional programme on chemical safety, in which it was hoped that all countries of the Region would participate. Locating the project operational headquarters in the WHO Regional Office for Europe would greatly facilitate that task.
4. As the WHO European regional programme would form part of the IPCS, the project should make full use of the IPCS outputs.
5. The closest possible collaboration should be established with ECE, UNEP, IRPTC, FAO, ILO, CEC, CMEA, OECD and other relevant international and regional bodies in order to achieve maximum coordination of effort.
6. The project should concentrate on the three major areas defined within the IPCS as being appropriate for regional implementation, viz: establishment of a regional framework for technical cooperation; manpower training; and contingency planning for, and response to, accidents and emergencies. Activities aimed at facilitating the utilization in Europe of outputs of other international programmes should also be undertaken.

7. With regard to the proposed objectives, the process of environmental impact assessment should be considered as an appropriate management tool.
8. In the field of environmental monitoring and epidemiology, in addition to field activities, an important function of the project should be to serve as clearing house for information on the national systems and programmes, as well as to assist in the dissemination of information on the results achieved. Particular attention should be paid to the compatibility of methods and comparability of results.
9. In relation to contingency planning and response to accidents and emergencies, the project should place special emphasis on methodology, the establishment of national and regional systems for alert and response, and trans-boundary and international aspects.
10. In the implementation of the manpower development component of the project, the various existing national and international training facilities and programmes should be developed to the fullest extent possible, and agreement should be sought on professional profiles, course curricula and reciprocal acceptance of qualifications.
11. Development of a framework for regional cooperation should be given high priority in the programme of work. Particular attention should be paid to strengthening national institutions working on environmental health aspects of the toxic chemicals problem, by assisting them to attain the level of competence and the resources necessary for their efficient contribution to the national and international effort. The project budget should contain provisions for training (fellowships) and equipment to be assigned to those institutions that needed them.
12. Although it was not presently envisaged that the promotion of international conventions and agreements on the subject of toxic chemicals would be a function of the project, it should develop the necessary technical bases. They could take the form of guidelines and codes of practice which, pending international action, could be used by governments in the formulation of their national regulations and procedures.
13. The governments should be encouraged to give active support to the project and to nominate appropriate national institutions which, within that framework, could assume responsibility for specific aspects of work.
14. The project activities should include a component aimed at informing the public on problems associated with toxic chemicals and their control.

8.2 Recommendations pertaining to the draft project document

The meeting recommended that:

1. The section on "Background and justification" should be reworded to make clear the relationship of the project to the work performed by other international organizations and to the activities of the IPCS.
2. The "Immediate objectives" should be grouped under the general headings of "Technical cooperation", "Emergency planning and response" and "Manpower development".
3. Under "Immediate objective 1", an output 1.2 should be added, reading:

"Design of investigations to achieve comparability of results".

4. The section on "Inputs" should be amended to emphasize that maximum use would be made of the expertise available in the participating countries.
5. The document should contain provisions for collaboration by other countries in the project work. The European regional programme on chemical safety would provide an appropriate framework for such collaboration.
6. The section on "Institutional framework" should be reworded to emphasize that each participating country would designate: (a) a focal point to coordinate the country's activities in the project, and (b) its representative on a steering committee which would guide and coordinate the work. This section should also contain provisions for association of other international agencies in the work.
7. While the project was planned to be of two years' duration, it was agreed that the subjects under discussion could only be satisfactorily implemented over a longer time.
8. In order to expedite matters to the fullest extent possible, a revised version of the document, incorporating the modifications referred to in the recommendations of the meeting, should be prepared as early as possible, and preferably by 31 August 1979.
9. Adoption of the report

The report of the meeting was adopted by the participants on 22 August 1979.

UNITED NATIONS DEVELOPMENT PROGRAMME

Intercountry Project of the Governments of:

Bulgaria, Czechoslovakia, Greece, Hungary, Malta, Poland, Portugal,
Romania, Turkey and Yugoslavia

PROJECT DOCUMENT

Title: European Cooperation on Environmental Health
Aspects of the Control of Chemicals, Phase I

Number: _____ Duration: Two years

Primary function: Development Cooperation

Secondary function:

Sector: 25

Sub-sector: 2570

Executing Agency: World Health Organization

Estimated starting date: January 1980

Government inputs: _____ (in kind) UNDP inputs: _____
(local currency or (US dollars)
currencies)

Signed: (see page (i))
on behalf of the Governments

Date: _____

on behalf of the Executing Agency

Date: _____

on behalf of the United Nations
Development Programme

Date: _____

Signed on behalf of the Governments of:

Bulgarian People's Republic

Date: _____

Czechoslovak Socialist Republic

Date: _____

Greece

Date: _____

Hungarian People's Republic

Date: _____

Republic of Malta

Date: _____

Polish People's Republic

Date: _____

Portugal

Date: _____

Romanian Socialist Republic

Date: _____

Turkey

Date: _____

Socialist Federal Republic of Yugoslavia

Date: _____

PART I: LEGAL CONTEXT

This Project Document shall be the instrument referred to as such in Article I, paragraph 1, of the Assistance Agreement between the Government and the United Nations Development Programme.

The Government Implementing Agency shall, for the purposes of the Standard Basic Agreement, refer to the Government Cooperating Agency described in that Agreement.

In relation to those countries which have not yet signed the Standard Basic Agreement, this Project Document shall be the instrument (therein referred to as a Plan of Operation) envisaged in Article I, paragraph 2, of the Agreement between the Government and the United Nations Development Programme concerning assistance under the Special Fund sector of the United Nations Development Programme.

PART II A: DEVELOPMENT OBJECTIVE

The long-term objective of this project is to strengthen the cooperation among the Member States of the European Region in the field of chemical evaluation and control through the development of suitable measures for the investigation, evaluation and control of production, distribution, storage, consumption of chemicals and the disposal of their wastes.

PART II B: IMMEDIATE OBJECTIVES

The immediate objectives of the project are to provide appropriate institutional and organizational framework for, as well as technical cooperation in:

- (a) application of harmonized methods of testing in the solution of particular problems;
- (b) application and, where necessary, development of harmonized impact assessment as decision making aid;
- (c) establishment of monitoring systems and performance of harmonized prospective and retrospective epidemiological studies;
- (d) development of contingency planning to make more effective the response by national authorities to emergencies and accidents related to chemicals safety;
- (e) development of adequate training programmes for the various categories of personnel required in relation to assessment and control;
- (f) development of arrangements for information exchange and technical cooperation among Member States;
- (g) development of guidelines and codes of practice which could ultimately be embodied in relevant conventions or other forms of international agreements.

PART II C: SPECIAL CONSIDERATIONS

In addition to the pursuit of the objectives stated in the preceding section, the project is concerned with the following economic and social goals which have been established on a global basis by UNDP:

1. Preservation and improvement of environmental conditions

Chemicals constitute an important and potentially harmful category of environmental pollutants. By promoting cooperation among European countries in the control of toxic chemicals, the project will contribute to the preservation and improvement of environmental conditions within the Region.

2. Promotion of technical cooperation among developing countries

It is expected that the results of this project as well as the methodology developed by it will be useful not only to the European countries but also to countries beyond the European region, and especially to the developing countries, thus contributing significantly to the promotion of international cooperation as well as to the objectives of TCDC.

PART II D: BACKGROUND AND JUSTIFICATION

1. Background

1.1 The nature and the extent of the problem

Some four million chemicals have been isolated from natural products or synthesized and about 60 000 are used in daily life in pesticides, drugs, food additives, industrial chemicals, fuels and chemical consumer products. Many of these chemicals appear in the working environment, or in water, food and soil as pollutants resulting from the wastes of production and consumption. The number of chemicals in use is increasing rapidly: between 200 and 1000 new chemicals are put on the market every year.

There is considerable public concern within the European region because of the possible adverse effects which some of these chemicals may have on human health and on the environment; on the other hand there are many benefits derived from their use, both in industrialized and developing countries.

The chemical industry is a very significant factor in national economics and international trade. For example, it is estimated that the total trade in chemicals amongst OECD countries exceeded \$50 billion in 1974 and the world trade is probably two to three times higher. About half of the total trade is within the European Region.

Man can be exposed to chemicals by skin contact or through air, water and food. The effects of chemicals on man's health depend on their chemical and physical properties, on the level, duration and frequency of exposure, on the rate of uptake by the body and on the rate of metabolism. The embryo and some segments of the population such as children, old people and individuals already affected by disease may be especially susceptible. Genetic factors may also determine sensitivity to chemicals.

Accidental exposures of epidemic proportions have occurred during the last few years in several countries, following industrial accidents or the release of toxic chemicals into the environment either in products or as wastes. However, perhaps the major concern relates to the effects of chronic long-term exposure to chemicals either in the work-place or general environment. Such problems require the development of a comprehensive strategy for control: the effects may be irreversible and the latency period may be as long as 30 years for some carcinogens. Possible mutagenic effects and also malformations due to teratogenic agents must be taken into account. In relation to these problems, the control strategy should be sufficiently broad to embrace not only industrial chemicals, but also categories such as products available to the general public, (e.g. paints, cleaning agents and cosmetics), and contaminants occurring inadvertently in air, water and food, including those with adverse effects on water and waste treatment plants.

1.2 Activities of international and intergovernmental organizations

It is clear that the problems under review do not recognize national boundaries. The global nature of the chemical industry means that a product made in one country may be exported to and used in another. Environmental pollution resulting from inappropriate waste disposal practices in one country may have impact in another. The methods available for assessing the potential adverse effects of chemicals on human health or the environment do not differ significantly from one country, or indeed one continent, to another. There is thus considerable justification for concerted international efforts to develop common approaches to the problems.

To highlight some pertinent activities, the Chemicals Group of the OECD Environment Committee established, in 1977, a chemicals testing programme to prepare "state of the art" reviews of test methods and systems of testing. The expert working groups concerned will report by the end of 1979, and one of the objectives of the OECD work is to influence the implementation of the new laws in such a way as to minimize duplication of work and costs, and avoid unnecessary barriers to trade.

The Commission of the European Communities has a programme on chemicals covering some aspects of the problem. Similarly, the member countries of the Council for Mutual Economic Assistance are implementing projects on some chemical-related aspects of environmental protection.

Within the United Nations system, the Economic Commission for Europe has work in progress on preparing a survey of toxic chemical control legislation and in the field of low and non-waste technology.

Mention should be made of the International Labour Organization of the United Nations and its activities on occupational hazards related to chemical exposure, and, in particular, the International Programme for the Improvement of Working Conditions and Environment (PIACT), and the proposed setting-up of the International Occupational Safety and Health Alert System.

The Food and Agriculture Organization of the United Nations has a programme on food additives and contaminants and on various agricultural chemicals. Many of these activities are carried out in collaboration with WHO.

The United Nations Development Programme has supported a large number of projects concerned with environmental pollution control and occupational health problems in developing countries. Several joint UNDP/WHO country

projects in cooperation with European governments have dealt with various aspects of the control of toxic chemicals.

Through its Global Environmental Monitoring System, the United Nations Environment Programme has been instrumental in developing more systematic approaches to the surveillance of chemicals in air, food and water. It has also established the International Register of Potentially Toxic Chemicals (IRPTC), located in Geneva and finally, has strongly supported the joint programme with WHO on environmental health criteria.

Cooperative arrangements between this project and other organizations, as envisaged during the formulation of the project, are described in Part IIC below.

1.3 Activities of the World Health Organization

The 30th World Health Assembly, in its resolution WHA30.47 requested the Director-General to study, in collaboration with appropriate national institutions and international organizations, the health problems related to the growing use of chemicals and the long-term strategies needed in this field, and to examine the the options for international collaboration aiming at:

- (i) accelerated and more effective evaluation of health risks from exposure to chemicals;
- (ii) promoting the use of experimental and epidemiological methods that will produce internationally comparable results;
- (iii) exchanging information on new chemical hazards to public health;
- (iv) providing rapid and effective response in emergencies and developing arrangements for mutual assistance among Member States, and
- (v) developing manpower in this field.

Evaluation of the effects of chemicals on health had been considered in many earlier World Health Assembly and Executive Board resolutions, particularly WHA15.41, 16.36, 17.39, 24.56, 25.61 and 28.66 on evaluating and monitoring drugs and pharmaceuticals; WHA6.16, 16.42, 23.50 and 25.59 expressing concern about chemicals and other contaminants in food; WHA4.31, 22.40 and 28.62 recognizing the possible health implications of the use of pesticides in agriculture and public health; WHA25.63, 28.73 and 29.57, and EB53R.23 and EB60.R2 concerning the health of the working population; WHA22.57 23.60, 24.47, 25.43, 25.58, 26.58, 27.49, 28.63 and 29.45 pertaining to chemicals contaminating the human environment; WHA29.55 on smoking and health; and WHA26.61 considering inter alia environmental carcinogens and WHA30.41 on long-term planning of international cooperation in cancer research. Objective 12.2 of the Sixth General Programme of Work of the Organization is also concerned with the effects of chemicals on health.

The World Health Organization is presently developing an International Programme on Chemical Safety (IPCS). The programme envisages establishment of a network of lead and participating institutions, coordinated by a central unit, under policy guidance provided by an advisory board and assisted by a technical committee. It is probable that the IPCS will be co-sponsored by several international organizations including UNEP, FAO and ILO.

The components of the IPCS have been developed from a series of meetings and consultations (see EHE/78.1, EHE/78.4, EHE/78.6 and EB 63/20). In summary, they consist of:

- data for risk assessment
- risk evaluation
- dissemination of risk assessment
- promotion of methodology for testing and risk assessment
- testing and validation (exceptional)
- epidemiological studies
- response in emergencies
- manpower development
- technical cooperation

It was envisaged that WHO Regional Offices would assume a lead role in regard to the following items:

- (i) cooperation in emergencies and accidents,
- (ii) development of trained manpower, and
- (iii) technical cooperation in response to specific needs of Member States.

They have thus been taken as the basis for the European Region's contribution to the IPCS in a programme, currently being developed, in which it is hoped that all Member States will participate. They are also the central elements of the present project which is intended for those countries in the Region eligible for UNDP support.

2. Justification

2.1 Technical Cooperation

The field for cooperation on environmental health aspects related to the control of chemicals is very broad. Chemicals may enter the environment through production activities, transport of raw materials, intermediates and products, use and disposal of products and process residues. They may have impact on occupational groups, on the general population, on particularly susceptible subgroups of either population or on non-human targets such as organisms in waste treatment plants. Arising from this, there is need to consider development of appropriate legislative and administrative control systems and particularly the strengthening of institutions which provide essential support to such systems. The latter include environmental protection agencies, institutes of toxicology, and the like.

The formulation of rational control policies for specific pollutants, based inter alia on interpretation of environmental health criteria documents, leads to the need for multi-media monitoring and surveillance programmes. Where possible, these should be harmonized on an international basis.

For new industrial or related developments, the importance of advance planning to assess the potential adverse effects on the environment is increasingly recognized. The implementation of such developments or review of existing ones creates the need for the toxicological and ecotoxicological assessment and evaluation, not only of individual substances, but of mixtures of chemicals or products and complex residues in gaseous or liquid effluents and in solid waste. The development of national data banks to store and retrieve information so generated facilitates the international sharing and dissemination of relevant information. In this area, close collaboration with the International Register of Potentially Toxic Chemicals (IRPTC) is clearly advantageous.

Finally, there is an important need to address the problems of public education on the risks associated with chemical production and usage and of public involvement in relevant decision-making processes.

Immediate objectives 1, 2, 3, 6 and 7 described in detail in the next section of this document, are related to technical cooperation aspects of this project.

2.2 Emergency response

Emergencies related to the accidental release of potential toxic chemicals may arise in numerous ways, including (i) major disasters affecting chemical plant; (ii) accidents during the transport of chemicals; (iii) the contamination of public water supplies by industrial pollutants; (iv) the chemical contamination of foodstuffs. There is a need for cooperation with governments with regard to the development of strategies to minimize the likelihood of such occurrences, to develop contingency planning systems - both acute and longer term - to cope with them should they arise, and to provide rapid assistance in response to specific emergencies. In this context, the important role of public health authorities in ensuring an appropriate state of central and local government "preparedness" should be stressed.

Immediate objective 4 in conjunction with objectives 6 and 7 address themselves to this aspect of the project work.

2.3 Manpower development

There is a world-wide shortage of toxicologists at present and in recognition of this deficiency, the Regional Office held a consultation in December 1978 to explore the problem of manpower development in toxicology. The participants recognized the need not only to ensure that adequate training resources are developed for the production of high calibre professionals, but also to provide appropriate training to a wide range of non-specialist personnel, including those in regulatory agencies.

Manpower development aspects are covered in objectives 5, 6 and 7 below.

PART II E: OUTPUTS AND ACTIVITIES

Immediate Objective 1

Application of harmonized methods of testing in the solution of particular problems.

Outputs

- 1.1 Priority list of industrial and community problems requiring investigation.
- 1.2 Design of investigations to achieve comparability of results.

Activities

- 1.1.1 Preparation of list of industrial and community problems by discussion with Member States and survey of literature.
- 1.1.2 Expert consultation to review list, establish priorities and advise on appropriate investigative approaches.
- 1.1.3 Where necessary, development, and validation by collaborative studies, of test procedures to complement and extend existing methodologies.

Immediate objective 2

Application and, where necessary, development of harmonized impact assessment as decision making aid.

OutputsActivities

- | | | | |
|-----|---|-------|--|
| 2.1 | Introduction of procedures for environmental health impact assessment of actions and projects involving production, processing, use or disposal of potentially toxic and hazardous substances. Environmental impact statements include evaluation of probable impacts, identification of alternatives which would minimize or eliminate these impacts as well as definition of required preventive and protective measures. | 2.1.1 | Review of present procedures and practices. |
| | | 2.1.2 | Identification of gaps and shortcomings and development of recommendations for adequate EIA systems. |
| | | 2.1.3 | Technical cooperation with governments and local authorities in introduction of these systems into practice. |
| | | 2.1.4 | Monitoring of results of newly introduced EIA systems. |
| | | 2.1.5 | Based on 2.1.4 above, development of improved recommendations as in para. 2.1.2 above. |

Immediate objective 3

Establishment of monitoring systems and performance of harmonized prospective and retrospective epidemiological surveys.

OutputsActivities

- | | | | |
|-----|---|-------|---|
| 3.1 | Establishment of national monitoring systems. | 3.1.1 | Definition of purpose and scope of national systems. |
| | | 3.1.2 | Definition of parameters to be monitored. |
| | | 3.1.3 | Development of guidelines for sampling procedures. |
| | | 3.1.4 | Development of guidelines for analytical procedures. |
| | | 3.1.5 | Definition of procedures for data handling, processing and storage. |
| | | 3.1.6 | Establishment of information delivery system. |
| | | 3.1.7 | Evaluation of the system. |
| | | 3.1.8 | Introduction of changes, as necessary. |

- | | | | |
|-------|--|-------|--|
| 3.2 | Development of harmonized regional system. | 3.2.1 | Definition of system components that can and need to be internationally compatible. |
| | | 3.2.2 | Technical cooperation with participating countries on development of regional information system. |
| <hr/> | | | |
| 3.3 | Epidemiological evidence on toxicity of groups of chemicals in specific situation or from specific sources, e.g. | 3.3.1 | Definition of scope and purpose of epidemiological studies. |
| | | 3.3.2 | Development of protocols for trial studies. |
| | (a) petrochemicals | 3.3.3 | Performance of trial studies to test the protocols. |
| | (b) dyestuffs | | |
| | (c) chlorinated solvents | 3.3.4 | Amendment and adjustment of the protocols in the light of the experience gained for the trial studies. |
| | (d) chlorophenols | | |
| | | 3.3.5 | Performance of full-scale coordinated studies in several countries, using compatible methodology. |
| | | 3.3.6 | Data processing, evaluation and publication of results in internationally comparable form. |

Immediate objective 4

Development of contingency planning to make more effective the response by national authorities to emergencies and accidents related to chemicals.

Outputs

4.1 Establishment of local, provincial and national alerting systems.

Activities

- 4.1.1 Definition of contingencies requiring activation of the system.
 - 4.1.2 Establishment of local, regional and national focal points for communications in cases of accidents and emergencies.
 - 4.1.3 Establishment of communication channels between focal points.
 - 4.1.4 Definition of responsibilities in focal points at various levels.
 - 4.1.5 Periodic testing of communication network.
-

- 4.2 Establishment of local, regional and national systems for response to accidents and emergencies.
- 4.2.1 Designation of centres of excellence possessing specialized expertise in matters related to accidents and emergencies involving chemicals.
 - 4.2.2 Assistance to the designated centres in developing additional expertise, as required, completing and maintaining appropriate information banks in readily accessible forms and establishment, testing and maintenance of systems for rapid delivery of relevant information to areas affected by accidents or emergencies.
 - 4.2.3 Preparation of rosters of experts on the various substances and aspects of possible accidents and emergencies.
 - 4.2.4 Development of administrative, financial and logistic procedures for rapid selection and recruitment of experts to assist in handling of emergencies and accidents.
-
- 4.3 Establishment of a framework for international cooperation in responding to emergencies and accidents.
- 4.3.1 Linkage of the national networks described in paragraphs 4.1.2 and 4.2.2 above to form a European system.
 - 4.3.2 Linkage of the national response systems described in paragraphs 4.2.1 to 4.2.4 above to form an European system.
 - 4.3.3 Testing of the European system of communications and response to emergencies and accidents related to chemicals safety.
 - 4.3.4 Adjustment and augmentation of the system, as necessary.
-
- 4.4 Identification of accident-prone situations and locations.
- 4.4.1 Analytical review of previous accidents/emergencies.
 - 4.4.2 Evaluation of causes.
 - 4.4.3 Definition of criteria for assessment of risk.
 - 4.4.4 Development of recommendations for minimizing risk in specific situations.
-

- 4.5 Development of national manpower resources necessary for efficient handling of accidents and emergencies.
- 4.5.1 See section 5 for programme of activities.
-

- 4.6 Programmes for rehabilitation of affected areas (N.B.)
-

Immediate objective 5

Development of adequate training programmes for the various categories of personnel required for assessment and control.

Output

Activities

- 5.1 Definition of professional profiles of all levels of personnel concerned with chemicals safety.
- 5.1.1 Definition of activities and functional responsibilities.
- 5.1.2 Definition of knowledge, skills and attitudes required for the satisfactory performance of functions described in activity 5.1.1 above, for each category of personnel.
- 5.1.3 Based on activities 5.1.1 and 5.1.2, definition of professional profiles.
-
- 5.2 Forecast of demand.
- 5.2.1 Assessment of present fulfilled and unfulfilled demand.
- 5.2.2 Forecast of development of economic activities requiring chemicals control.
- 5.2.3 Based on activities described in paras. 5.2.1 and 5.2.2, forecast of future demand of the various categories of personnel, according to profiles established in output 5.1 above.
-
- 5.3 Manpower development programme.
- 5.3.1 Inventory of institutions in each participating country and in the European Region as a whole, currently providing theoretical and/or practical training leading to the acquisition of knowledge, skills and attitudes defined in para. 5.1.2 above.
- 5.3.2 Inventory of training programmes offered by institutions listed in para. 5.3.1 above.

- 5.3.3 Assessment of the quantitative and qualitative adequacy of the training programmes listed in para. 5.3.2 to satisfy the demand forecast in para. 5.2.3.
 - 5.3.4 Identification of additional training needs.
 - 5.3.5 Development of curricula for the training needs identified in para. 5.3.4.
 - 5.3.6 Provision of assistance to selected training institutions in introduction of additional curricula developed in 5.3.5.
 - 5.3.7 Organization and implementation of ad hoc training courses.
-
- 5.4 International accreditation system.
 - 5.4.1 Definition of criteria at various levels.
 - 5.4.2 Procedures for development of international acceptance.
-

Immediate objective 6

Development of arrangements for information exchange and technical cooperation among Member States.^{1/}

Outputs

6.1 Framework for regular exchange of information.

Activities

- 6.1.1 Meetings of experts and publication of reports on:
 - (a) existing legal framework and the resulting regulations related to chemicals;
 - (b) administrative procedures for enforcement and implementation of control measures including procedures for assessment approval, licensing and notification
 - (c) existing and planned technical and institutional resources
 - (d) results of monitoring activities and epidemiological studies described under objective 3 above.

^{1/} Outputs and activities listed in this section are additional to those listed under objective 4 which deals with exchange of information and technical

6.2 Institutional framework for technical cooperation

- 6.2.1 Analysis of purposes, goals, programmes and resources of national institutions concerned with chemicals safety (see also activity 6.1.1(c) above).
 - 6.2.2 Designation of one or more institutions in each participating country, to serve as focal point(s) for international cooperation.
 - 6.2.3 Strengthening of designated institutions by provision of assistance in their programme planning, development and implementation as well as in upgrading of their manpower and technical resources.
 - 6.2.4 Establishment of routine communications network between the national focal points.
 - 6.2.5 Development of a mechanism for inter-institutional cooperation on programme planning and development as well as on specific technical subjects.
 - 6.2.6 Based on activity 6.2.5 above, development of a mechanism for intergovernmental cooperation.
-

Immediate objective 7

Development of guidelines and codes of practice which could ultimately be embodied in relevant conventions or other forms of international agreements.

Outputs

- 7.1 Production of guidelines, codes of practice, manuals, etc.

Activities

- 7.1.1 Review of existing national and international guidelines, codes of practice and other management aids.
- 7.1.2 Establishment of priorities for the development of guidelines and codes of practice on subjects not covered by other international or national programmes.
- 7.1.3 Expert consultations on scope and contents of guidelines and codes to be developed by this project according to priorities established by activity 7.1.2 above.
- 7.1.4 Drafting of the documents by experts under contractual arrangements.
- 7.1.5 Review of the drafts by international working groups.
- 7.1.6 Publication and distribution.

PART II F: INPUTS

The participating governments will contribute in kind, the work of their participating institutions, including buildings, facilities and staff, as well as the services of national experts and the accumulated national experience in dealing with problems related to chemicals safety.

Maximum use will be made of the expertise available in the participating countries. At an earliest possible stage, and not later than three months after the commencement of the project operations, a detailed list of contributions in kind shall be prepared by the Project Manager in consultation with the governments concerned. This list will be reviewed and updated periodically during the project operations to ensure that the inputs correspond to the foreseen needs.

The UNDP will contribute expert services, support personnel, equipment, subcontracts and training costs to the extent and in the amounts specified in the Project Budget covering UNDP contribution.

PART II G: COLLABORATION WITH OTHER ORGANIZATIONS AND NON-PARTICIPATING GOVERNMENTS

Closest possible collaboration shall be established with ECE, UNEP, IRPTC, FAO, ILO, CEC, CMEA, OECD and other relevant international and regional bodies in order to achieve maximum coordination of effort.

Collaborative arrangements may include inclusion of Associate Agencies in the execution of specific items of work, bearing in mind the areas of competence of agencies concerned.

In order to achieve full cooperation of those European countries which are not eligible for UNDP support, the proposed project will be closely linked with the WHO/EURO programme on control of toxic chemicals in which all countries within the Region will participate.

PART II H: PREPARATION OF THE WORK PLAN

A detailed Work Plan for the implementation of the project will be prepared by the Project Manager in consultation with the leaders of the national staffs. This will be done at the start of the project and brought forward periodically.

A general time-table covering the duration of the project and the expected delivery dates of the various outputs is attached in Annex I. The time-table takes into account the priorities discussed during the international consultation with participation of experts from most participating countries which was held in Copenhagen from 20 to 22 August 1979¹.

¹See WHO/EURO Document ICP/RCE 903(1), "Report on European Cooperation on Environmental Health Aspects of the Control of Chemicals: Proposed UNDP/WHO Project".

PART II I: PREPARATION OF THE FRAMEWORK FOR EFFECTIVE PARTICIPATION OF NATIONAL AND INTERNATIONAL STAFF IN THE PROJECT

The activities necessary to produce the indicated outputs and achieve the project's immediate objectives will be carried out jointly by the national and international staff assigned to it. The respective roles of the national and international staff will be determined by their leaders, by mutual discussion and agreement, at the beginning of the project, and set out in a Framework for Effective Participation of National and International Staff in the Project. The Framework, which will be attached to the Project Document as an annex, will be reviewed from time to time. The respective roles of the national and international staff shall be in accordance with the established concept and specific purposes of technical cooperation.

PART II J: DEVELOPMENT SUPPORT COMMUNICATION

Adequate public information is indispensable for effective action on the control of toxic chemicals. Some of the elements of public information aspects of this project are:

- (i) Adequate labelling of products
- (ii) User information on possible harmful effects
- (iii) Information on actions required as the results of accidents or misuse
- (iv) General information to foster public awareness of potential dangers.

Due attention will be paid to these elements in the execution of project activities.

PART II K: INSTITUTIONAL FRAMEWORK

Each participating country will designate a focal point which will be responsible for coordination of the country's activities on this project.

A Steering Committee consisting of designated representatives from each participating country will be instituted, to guide and coordinate the work of this project.

Ad hoc working groups will be convened to advise on the execution of specific elements of project work.

The World Health Organization will execute its function as the Executing Agency through its Regional Office for Europe in Copenhagen. A Project Manager will be appointed to supervise the UNDP inputs into this project and to coordinate its activities.

The operational headquarters of the project during the first phase of its operations will be located in the WHO Regional Office in Copenhagen.

PART II L: PREREQUISITES

As a prerequisite for the implementation of this project, each participating government will designate a focal point which will be responsible for securing and coordinating the country's participation in the activities of this project.

The Project Document will be signed by UNDP, and UNDP assistance to the project will be provided, subject to UNDP receiving satisfaction that the prerequisites listed above have been fulfilled, or are likely to be fulfilled. When anticipated fulfilment of one or more prerequisites fails to materialize, UNDP may, at its discretion, either suspend or terminate its assistance.

PART II M: FRAMEWORK FOR PERMANENT COLLABORATION

It is expected that the framework for technical cooperation to be established by this project, described in detail under paragraph 6.1 and 6.2 of this document, will be institutionalized and will form a basis for permanent collaboration among the Member States, with the participation of WHO, after termination of this project.

PART II N: FUTURE UNDP ASSISTANCE

It is expected that the framework for European cooperation on environmental health aspects of the control of toxic chemicals will be established during the phase I of this project, and that this framework will be institutionalized on a permanent basis by the participating countries.

This will require both broadening of the areas of collaboration on this subject and intensification of the collaborative efforts, thus leading to the achievement of higher levels of objectives of this project.

It is expected that those participating countries which will be eligible for UNDP support at the end of this project, may request further UNDP assistance which may take the form of "Phase II" of this project.

PART III: SCHEDULES OF MONITORING, EVALUATION AND REPORTS

PART III A: MONITORING REVIEWS; TECHNICAL REVIEWS

The project will be subject to periodic review in accordance with the policies and procedures established by UNDP for monitoring project and programme implementation.

The Executing Agency will review periodically, at least semi-annually, the progress of work under this project. Outside independent consultants may be recruited to review specific aspects of project operations.

PART III B: EVALUATION

The project will be subject to evaluation, in accordance with the policies and procedures established for this purpose by UNDP. The organization, terms of reference and timing of the evaluation will be decided by

consultation between the governments, UNDP and the Executing Agency.

It is expected that the progress and the achievements of this project will be evaluated by the representatives of the participating governments, UNDP and the Executing Agency approximately 12 months after the commencement of project operations.

PART III C: PROGRESS AND TERMINAL REPORTS

1. Progress reports

Semi-annual progress reports will be issued by the Project Manager, summarizing the progress and the achievements of the project during the reporting period and identifying any problems impeding project operations.

2. Technical reports

Each output specified in Part II E above will be summarized in a technical report.

3. Mid-project report

An interim report including the assessment of progress and achievements of this project and covering the first 12 months of project operations will be prepared by the Project Manager based on the contributions of the participating national institutions, for submission to the evaluation meeting specified in Part III B above.

4. Terminal report

Final report covering both technical and administrative matters will be prepared on the termination of project operations.

PART IV: PROJECT BUDGET COVERING UNDP CONTRIBUTION

(US Dollars)

Annex I

Country: European Region
 Project No.:
 Title: European Cooperation on Environmental Health Aspects of the Control of Chemicals

	T O T A L		1 9 8 0		1 9 8 1	
	m/m	\$	m/m	\$	m/m	\$
10. <u>Project Personnel</u>						
11. Experts						
11-01 Project Manager						
11-02 Consultants						
11-99 Subtotal						
13 Support Personnel						
13-01 Administrative Assistant						
13-02 Documents and Reports Officer						
13-03 Secretary						
13-04 Part-time translation, typing and editorial assistance						
13-99 Subtotal						
15. Duty travel						
16. Other costs						
19. <u>Component total</u>						

	TOTAL		1980		1981	
	m/m	\$	m/m	\$	m/m	\$
20. <u>Subcontracts</u>						
21. Major studies and surveys						
22. Training programmes						
23. Manuals and codes						
24. Publishing and printing						
29. <u>Component total</u>						
30. <u>Training</u>						
31. Individual fellowships						
32. Group training						
32-01 Training courses						
32-02 Working groups and meetings						
32-99 Sub-total						
39. <u>Component total</u>						

	TOTAL	1980	1981
40. Equipment	\$	\$	\$
41. Expendable equipment			
42. Non-expendable equipment			
42-01 Laboratory equipment			
42-02 Field monitoring equipment			
42-99 Sub-total			
49. <u>Component total</u>			
50. Miscellaneous			
51. Operation and Maintenance			
52. Sundry			
53. Reporting costs			
59. <u>Component total</u>			
99. GRAND TOTAL			

Annex I

ANNEX II

LIST OF PARTICIPANTS

TEMPORARY ADVISERS

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Socialist Republic of Serbia, Belgrade, Yugoslavia
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- Dr L. Ochocki
Vice-Minister, Ministry of Land Resource Management and Environmental Pro-
tection, Warsaw, Poland, (Chairman)
- Professor F. Pocchiari
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- Dr J. Spaander
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lands
- Dr G. Ungváry
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- Mr M. Yeroulanos
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Planning and the Environment, Ministry of Coordination, Athens, Greece
(Vice-Chairman)

¹ Participation expenses not paid by WHO.

REPRESENTATIVES OF OTHER ORGANIZATIONS

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United Nations Environment Programme (UNEP)

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Mrs Barbro Blomberg
Regional Officer for Food Safety Programme

Dr D.M. Ferguson
Regional Officer for Toxicology (Secretary)

Dr A. Gilad
Regional Officer for Environmental Systems Management (Secretary)

Dr M. Mikheev
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Mr J.I. Waddington
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Headquarters

Dr V.B. Vouk¹
Manager, Environmental Health Criteria and Standards

¹ Participation expenses not paid by WHO.