

INTERNATIONAL ORGANIZATION FOR CHEMICAL SCIENCES IN DEVELOPMENT (IOCD)**(A new experiment in International Cooperation)****A. R. VASUDEVA MURTHY***Inorganic and Physical Chemistry Department, Indian Institute of Science,
Bangalore 560 012, India.***ABSTRACT**

The International Organisation for Chemical Sciences in Development is an organisation designed to develop and carry out programs in the Chemical Sciences which will be of direct benefit to less-developed countries. The programs will involve the active cooperation of chemists and chemical institutions throughout the world and will embrace education, research, communication, industry and technical services.

1. BIRTH OF A NEW ORGANISATION

AT the twentieth session of the UNESCO General Conference held in Paris in 1978, a resolution was passed that UNESCO should investigate the feasibility of setting up an international organisation for chemical education and research. Following this resolution, UNESCO commissioned a number of studies and surveys which formed the basis of a consultative meeting held in Tenerife (Spain) during September 1979. Eminent chemists from the various regions of the world contributed to this meeting. The meeting resulted in a proposal to establish an International Organisation for Chemical Sciences in Development (IOCD). This new organisation was founded in July 1981 at the UNESCO Headquarters in Paris. IOCD consists of a community of chemists committed to the applications of the Chemical Sciences to social, scientific and economic development. The IOCD addresses many aspects of chemistry in our contemporary world emphasizing the needs of developing countries. IOCD's goals rest on the belief that science, transcending national political and philosophical boundaries can provide tools to bridge the gap between the less-developed countries and the industrialised world.

2. AIMS AND OBJECTIVES OF IOCD

The organisation aims to encourage cooperation among chemists and chemical institutions throughout the world and to harness the chemical sciences to work towards solutions of socio-economic problems in less-developed countries. In particular, its aim to help less-developed countries generate growth in those branches

of the Chemical Sciences which are likely to prove of most benefit to them. Some major objectives of the IOCD are:

2.1. Identification of scientists and their research facilities

IOCD will attempt to identify chemists actively working in a region, and will assist these scientists by facilitating communication and cooperation with colleagues in both developing as well as industrialised countries. Many chemists in the third world are hampered in their work by limited facilities and equipment, poor maintenance and repair of instruments and unsatisfactory libraries, as well as difficulties in the importation of chemicals, reagents and supplies. IOCD aims to support chemists actively engaged in programs relevant to their country by the provision of back-up services.

2.3. Strengthening of chemical activities through cooperation programs

The IOCD will stimulate exchange programs and research projects in common with scientists from developed countries and promote collaborative programs in the application of chemistry to resolve local problems.

2.4 Promotion of industrial activities

The IOCD aims to foster cooperation between university and industry in order to adapt and exploit existing chemical knowledge for local development. The IOCD will also organize training courses for chemical technicians, electronics technicians and analytical person-

nel, suited for the needs of local laboratories in universities, industries, hospitals and other institutions using chemical expertise.

3. IOCD ACTIVITIES

The IOCD has already made an impressive start in accomplishing some of its objectives in the brief period since its founding.

3.1. Chemical research

The IOCD has already launched a chemical synthesis program in search of cures for major tropical diseases. Long-term activities include research programs in the chemistry of natural products, local natural resources (natural polymers, etc.) and inorganic materials. All these activities have two objectives—first, to prepare or isolate substances which can be of social significance (food, drug, cure, etc) and second, to use the program for strengthening institutions in developing countries. Eleven laboratories located mainly in developing countries are participating in this program.

3.2 Chemical education and training

As a start, the IOCD has linked into UNESCO's regional networks. An example is the Southeast Asian network which operates regional seminars, workshops, training courses and exchange programs in the field of natural products chemistry. Another example is the University of Ljubljana in Yugoslavia which has offered to act as a Centre for Chemical Education of an International network of Chemical Education. The IOCD is also tied up into UNESCO's activity on University-Industry interactions in chemistry. This program has already run a successful international conference on the theme which is now being followed up by a series of activities in the region.

3.3 Chemical services

Adequate analytical and instrumental services are frequently lacking in developing countries. The IOCD has given priority to several types of services. IOCD has already received specific and generous offers for the immediate commencement of programs in analytical services and biological testing from several institutions and organisations. For instance, The City University, London has accepted the responsibility of setting up an "Analytical Service Laboratory" and provides this service free of charge as a gesture of goodwill and

availability to the scientific community from the developing countries.

3.4 Dissemination of chemical information

An important function of the IOCD is to help the circulation of knowledge about current activities in the chemical sciences to scientists working in the Third World countries. A Newsletter "Chemistry in Asia" is published by the UNESCO Regional Network for the Chemistry of Natural Products in Southeast Asia covering the needs of some 21 countries. The IOCD intends to publish newsletters on a regular basis. In addition, it will foster contacts between scientists and will assist with the dissemination of information related to important scientific publications, congresses, symposiums and new programs.

4. STRUCTURE AND OPERATION OF THE IOCD

The IOCD is a non-governmental, non-profit organisation and will work exclusively for peaceful purposes.

4.1. Networks

Although a small secretariat will be based in UNESCO, Paris, the organisation will have no physical centre. It will operate through networks of cooperative institutions.

4.2. Council

The organisation will be governed by a council consisting of eminent chemists representing the various regions of the world and the various branches of the chemical sciences. Other international non-governmental organisations in the chemical sciences will also be represented on the council.

4.3. Programs and panels

The council will decide which programs, the organisation will undertake and will also decide on the priorities for these programs. Each program will operate through a panel of scientists who will be responsible for the implementation and operations of the programs. Each panel will have a convener. The convener will sit on the council.

4.4. Funds

UNESCO is providing seed funding for the initial programs of the IOCD. The IOCD will rely on local,

national and regional sources for continuing support. Support will be sought from industry, private foundations, aid agencies, national funds and international bodies.

4.5. Present composition of the council of IOCD

Its officers consist of the IOCD President, Prof. G. T. Seaborg (USA) assisted by three Vice-Presidents representing Africa (Dr Donald E. U. Ekong, Vice-Chancellor, University of Port Harcourt, Nigeria), Asia (Dr Kamchorn Manunapichy, President of the Federation of Asian Chemical Societies, Bangkok) and Latin America (Dr Sherman Thomas of Coltarica, Vice-President of the Latin American Federation of Chemical Societies) and by Professor P. Crabbe, Secretary General (Chairman of the Department of Chemistry, University of Missouri, Columbia). The members of the IOCD council include Nobel Laureates, Professor S. Bergstrom and Professor L. E. Leloir from Argentina. Professor E. R. Blout of Harvard University (USA) serves as Chairman of the Finance Committee, of which Professor Ch. Tamm from the University of Basel (Switzerland), Dr I. Eneberg, Secretary General Crabbe and President are also members. Professor Sir Ewart Jones of Oxford University (UK) is the Chairman of the Affiliation Committee on which Professor C. N. R. Rao of India and Professor M. Julia of France also serve.

5. OPPORTUNITIES FOR INDIAN CHEMISTS

It is gratifying that chemists in developed nations now have a way to collaborate in their areas of expertise with colleagues in the developing countries. Responses from chemists around the world have been encouraging and have confirmed the conviction that IOCD has an important role in aiding the development of Third World countries and in assisting them in improving the quality of life through chemistry.

It is our fond expectation that the community of Indian chemists will take full advantage of these cooperative efforts for the advancement of knowledge in chemistry and for the benefit of the people.

Further information can be had by writing to

The Secretary General,
International Organisation for Chemical
Sciences in Development,
Division of Scientific Research and
Higher Education,
UNESCO,
7, Place de Fontenoy,
75700 Paris,
France

NEWS

CUTTING PRESS IMPROVES PRODUCTIVITY

Productivity is improved—downtime is reduced and short runs and part orders are made practicable—by this computer-controlled travelling-head cutting press with a rapid program-change facility, introduced by a British Firm. Programs can be changed in as little as 30 seconds on the British-made THP219-Auto and a number of cutting programs may be stored in the computer memory and recalled instantly so that a new one may begin as soon as the dies and materials have been changed, taking a matter of seconds. The computer informs the operator which die and which material should be loaded. Further economies are achieved by the rotating cutting head, which enables

cuts to be fully interlocked, so as to obtain the maximum number of pieces from material. The machine can accept standard strip-steel knives or wood-rule forms if attached to a steel backing plate. A suitable ejection system, generally of soft rubber, must be included so that the cut pieces will remain on the cutting board or belt for the operator to remove. A wide range of microcomputers can be used to control the unit. The manufacturer supplies suitable programs for most popular micro computers in a variety of formats, such as cassette and floppy disc to suit customer requirements. (*British Industrial News*, No. 144, January, p. 25).