



**TOGETHER**  
*for a sustainable future*

## OCCASION

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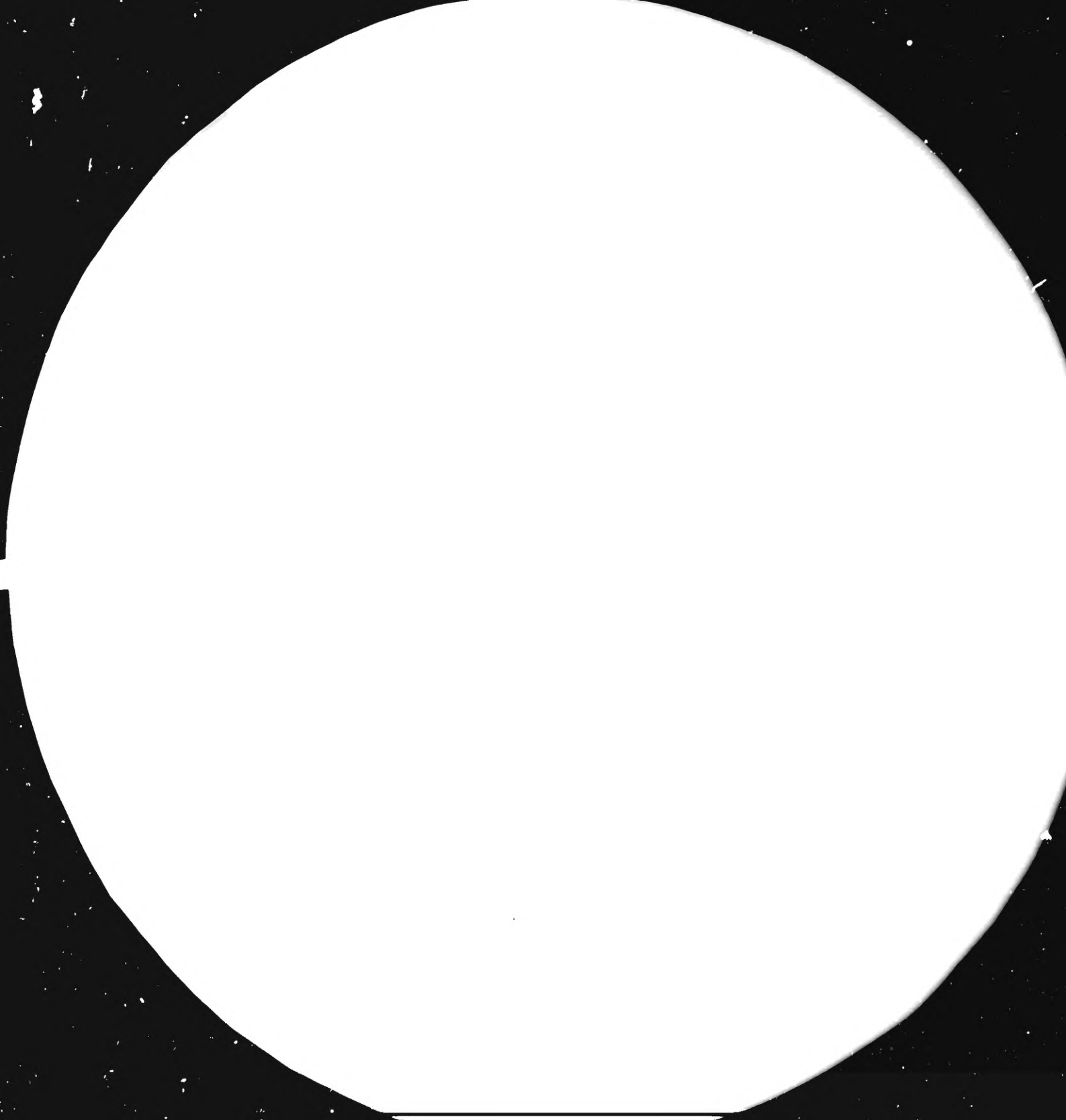
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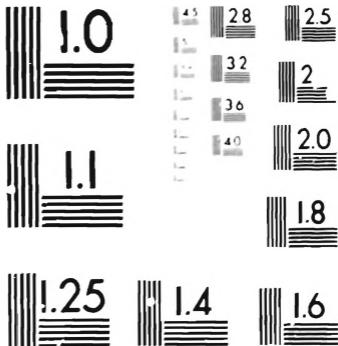
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## UNIDO activities in training



### INTRODUCTION

Since 1967 UNIDO has been fulfilling its original mandate "to promote and accelerate the industrialization of the developing countries" by responding to requests from the Governments of those countries for technical co-operation in all aspects of industry.

This commitment to industry as a means of improving the living standards of lands containing nearly three-quarters of the world's population, first outlined in Resolution 2152 (XXI) adopted by the General Assembly of the United Nations on 17 November 1966 has since been intensified. In 1975 at the Second General Conference of UNIDO in Lima, Peru, a Declaration and Plan of Action on Industrial Development and Co-operation decided that every effort must be made to increase the share of world industrial production in developing countries to 25 per cent by the year 2000. It was at that time 8.6 per cent. One of the means to be employed was for UNIDO to "intensify and expand its present operational activities." A further point in the Plan was that the scope and functions of UNIDO needed to be expanded and its organizational machinery extended.

In the series of booklets of which this is one, the manner in which UNIDO's industrial operations in many separate sectors of industry have been performed is related, together with methods adopted to accelerate industrialization to the utmost.

Most of the money for well over 2000 projects a year in more than 120 countries, in regions and territories, comes from the United Nations Development Programme (UNDP) for which UNIDO is an executing agency. Increasing resources for the organization's own initiatives are arising from the United Nations Industrial Development Fund set up as a direct result of the Lima conference. In 1979 the Executive Director, Dr. Abd-El Rahman Khane, was able to report that delivery of services and equipment by UNIDO had grown by fifty per cent in the previous four years. The total value of projects approved was by then nearly \$ 400 million, compared with \$ 6.6 million in 1967—in both cases far more than could be accomplished in one year with the staff available.

Sectors of industry to be dealt with in this series of booklets, all within the sphere of the Industrial Operations Division of UNIDO, are:

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Metallurgical Industries  
Capital Goods  
Computer Aided Design and Manufacture  
Training  
Pharmaceuticals  
Building Materials and Construction Industries  
Petrochemicals  
Wood and Wood Processing  
Quality Control and Standardization  
Institutional Infrastructure  
Packaging

## **Training**

Trained management and workers are required to run a factory, maintain machinery, conduct research, and manage an institute. In the initial stages of industrialization expatriate manpower often holds responsible positions, but as political and economic independence are achieved, self-sufficiency with respect to trained manpower becomes increasingly important.

### **Individual fellowships for training abroad**

In all industrialized countries, governmental or semi-governmental organization exists that is responsible for the placement of trainees from developing countries.

UNIDO programmes though relatively small, are of crucial importance to the success of most projects. Fellowships are given to counterparts of expatriate experts so that apart from working side by side with the experts, fellows are given the opportunity to study abroad in a mostly practical rather than academic way in order to obtain the skills, know-how and experience required to take over the functions initiated by the foreign expert. It is only with well-trained local staff that a technical assistance project will continue to function satisfactorily after the termination of foreign aid.

Apart from fellowships that last from one to several months, it has become of increasing importance that senior staff make study tours from one to four weeks. These tours feature visits to relevant authorities and institutions in developing and developed countries, and allow for an exchange of views. They are of particular value in establishing new or revising existing strategies for specific areas of industrial development.

Whereas most individual fellowships are carried out as part of projects, projects composed wholly of fellowships are also useful for providing skilled manpower required in specific industrial fields.

## Group training abroad

As far back as 1965, the Centre for Industrial Development, the predecessor of UNIDO, realized that the training of engineers should be practice-oriented, supplementary to the theoretical knowledge a candidate already possesses, and be carried out on an individual basis by experienced instructors. This was the beginning of the In-Plant Group Training Programmes, which still constitute the majority of the group training programmes of UNIDO.

Apart from theoretical introductions, these programmes aim at getting the participants acquainted with the latest developments in the subject concerned; part of the time is spent on actual studies in industry (or related institutions). Although the ratio between theory and practice may differ from programme to programme, the training is practice-oriented. Follow-up and evaluation studies reveal that the programmes are successful.

The first of the In-Plant Group Training Programmes were sector-oriented, as in iron and steel (Zaporozhye, Ukraine initiated in 1965), the elec-



trical industry (Sweden, 1966), the textile industry (Poland, 1967) and the pulp and paper industry (Sweden, 1969). As a second phase, programmes were introduced on specific functions to be performed in industry, e.g. management of maintenance systems (Sweden, 1970) or standardization (Soviet-Union, 1971).

In some instances, programmes were designed for a specific function in a specific sector, as with maintenance in railway workshops (Federal Republic of Germany, 1971).

Some programmes are carried out annually, some are scheduled for a number of years, and some are organized ad hoc. The basis depends on the facilities and financing available rather than a declining need or interest.

Whereas in the initial period these training programmes were all organized in industrialized countries, experience has enabled an increasing number to be conducted in selected developing countries. This can be done by utilizing initially the original staff of the programmes, using local staff whose experience may be more appropriate to conditions prevailing in the participant's home country. The first programme of this kind was in tropical food processing (India, 1971) followed, to give some examples, by industrial design (Egypt, 1976) and small foundry operations (Turkey, 1979).

UNIDO is also engaged in helping training institutions in selected developing countries to strengthen their capabilities with the aim of preparing them to train nationals from other developing countries. This is done particularly in fields in which not all countries, especially small ones, can become self-sufficient.

### **Training at home**

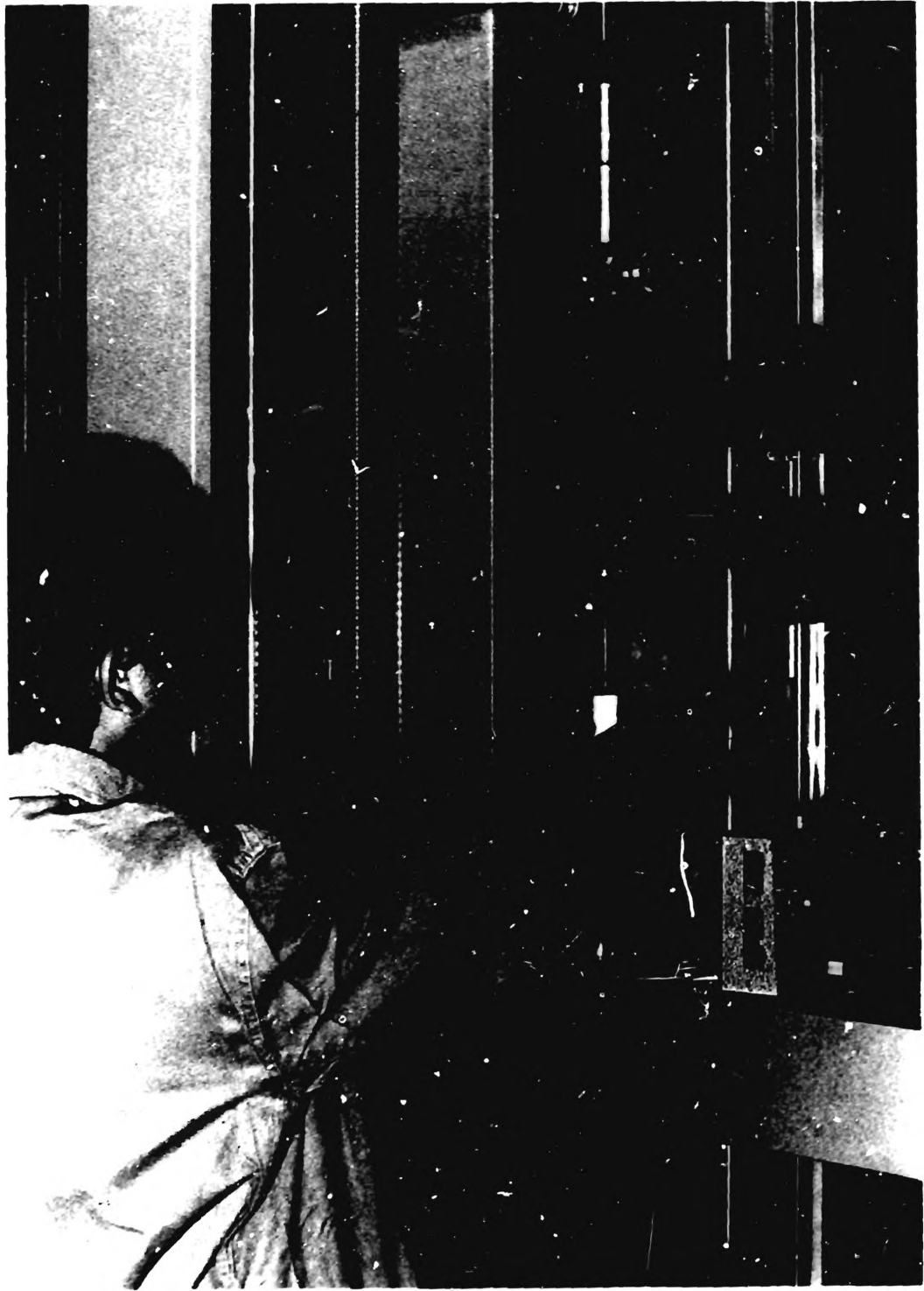
Although programmes for training abroad may be further expanded, they will never be sufficient to meet the training needs of the developing countries. Training abroad, be it in industrialized or in other developing countries, will remain a privilege for a small group holding key functions in the industrialization process. Developing countries will achieve self-sufficiency only when they are in a position to meet most of their own training needs. Training in the country itself will reach more people at, if well designed and conducted, lower cost; it has the potential to be more readily adaptable to particular needs and circumstances of the country concerned and permits more immediate and effective on-the-job application.

Assistance in the field of training should therefore concentrate on the following, particularly the first:

Strengthening and expanding of training capabilities of existing institutions;

Design and development of industrial training institutions at national and industrial levels (in certain instances, at a subregional level);

Design and development of training departments within government organizations, holding companies, combinations of industrial enterprises or individual plants, and





Specialized training programmes for specific groups, including the provision of instructors and training equipment.

### **How to apply**

All requests for UNIDO assistance have to be directed by the appropriate government authorities to the Resident Representative of the United Nations Development Programme (UNDP). UNIDO is represented in a number of countries by a Senior Industrial Development Field Adviser (SIDFA). The staff of the UNDP Resident Representative's office and the SIDFA will be in a position to explain in detail the procedures to be followed.

Individual fellowships are to a large extent a part and parcel of existing projects. It is of prime importance that in the design of projects the need for training (together with study tours) be realistically assessed and included in the programme of the project. Sole fellowship projects can be established within the framework of the UNDP country programme and in certain instances can be financed from non-UNDP sources. A limited number of individual fellowships are awarded under the Regular Programme of Technical Assistance.

Invitations to apply for participation in UNIDO group training programmes are sent to UNDP Resident Representatives' offices, which communicate these to the appropriate authorities. Applications can only be accepted by UNIDO if submitted by the government through the UNDP Resident Representative.

Further details on individual fellowships, study tours and participation in group training activities are given in the UNIDO Training Offer Programme, published annually and obtainable from the address given below.

Local training programmes are primarily financed by UNDP. Financing by UNIDO itself through the United Nations Industrial Development Fund is also possible. Although official contacts have to be made through the Resident Representative of the UNDP office or SIDFA, further information can be obtained from:

Training Section  
Industrial Operations Division  
UNIDO  
Vienna International Centre  
P.O. Box 300  
A-1400 Vienna, Austria

