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07381



United Nations Industrial Development Organization

Distr.
LIMITED

ID/WG.234/13
5 January 1977

ORIGINAL: ENGLISH

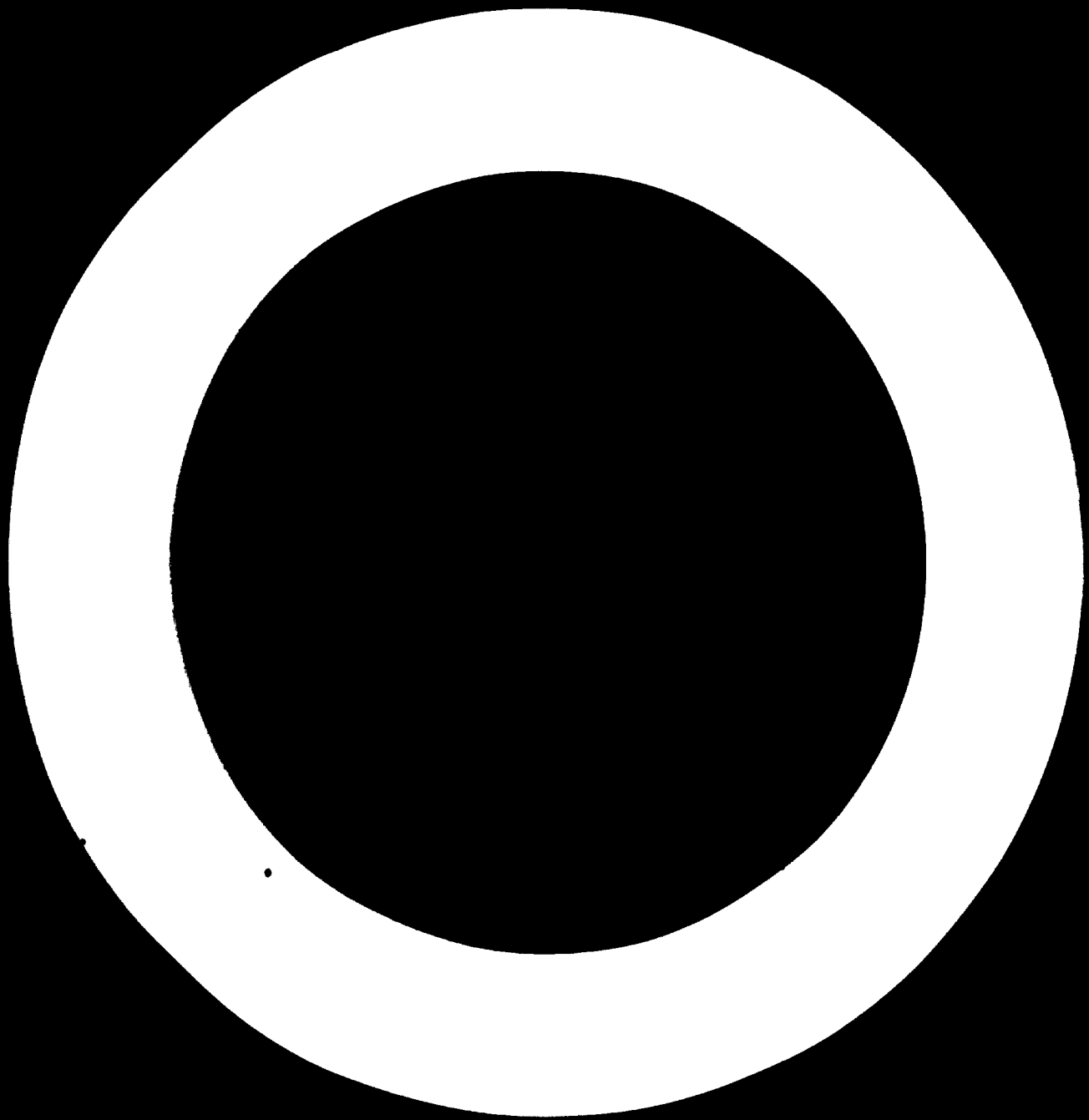
INDUSTRIALIZATION OF THE LEAST DEVELOPED COUNTRIES

Report
of the

Intergovernmental Expert Group Meeting

Vienna, 15 - 24 November 1976

Id.77-037



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Part one

REPORT OF THE MEETING

INTRODUCTION

The Intergovernmental Expert Group Meeting on the Industrialization of the Least Developed Countries (LDCs) was convened by the United Nations Industrial Development Organization (UNIDO) at Vienna from 15 to 24 November 1976.

The Meeting was attended by 26 representatives from 20 LDCs, representatives of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Conference on Trade and Development (UNCTAD), the UNCTAD/GATT International Trade Centre (ITC), the International Labour Organisation (ILO), the Economic and Social Commission for Asia and the Pacific (ESCAP), the Economic Commission for Africa (ECA), staff members and two consultants of UNIDO. The last part of the Meeting was attended by representatives of financial institutions and of Governments engaged in aid programmes.^{1/}

In his opening address, E. Napoliello, speaking on behalf of the Executive Director of UNIDO recalled that at the Second General Conference of UNIDO held at Lima in 1975 the developing countries had affirmed their conviction of the role of industry as a dynamic instrument of growth of the developing countries, and particularly of the least developed countries. Within the framework of the objectives of the Lima Declaration and Plan of Action, it was necessary to review the peculiar conditions of the LDCs, especially in view of the goal that the share of the developing countries in world industrial production be raised to at least 25 per cent by the year 2000.

Special emphasis should be placed on their development and a concerted endeavour should be made to give a powerful impetus to their progress, since these countries, 17 of which are land-locked, faced problems that distinguished them from other developing countries.

In response to the recommendations of the Second General Conference of UNIDO and of the General Assembly at its seventh special session (resolution 3362 (S-VII)), special machinery was created within UNIDO to take care of the need of the least developed countries for special assistance. The Least

^{1/} The list of participants appears in UNIDO document ID/WO.234/6/Rev.2.

Developed Countries Section in the Division of Policy Co-ordination serves as a focal point of policies, strategies and measures relating to the LDCs.

In his introductory remarks Kamal Ahmed, Acting Chief of the Least Developed Countries Section, reviewed some of the activities of the Section. The Section had made a number of proposals covering different industrial sectors and had combined them in a portfolio of projects which had been forwarded to the countries concerned. In collaboration with other sections of UNIDO it had been engaged in mobilizing resources from bilateral and multilateral donors outside the United Nations system. An interdivisional task force had prepared a working paper containing the broad lines of the policy and activities of UNIDO for these countries. The Section had also proposed to a number of countries a programme for surveying the technical assistance needs for rehabilitation and optimum utilization of existing industrial capacities. Another programme had been suggested that was designed to update feasibility studies and to present them in a bankable form to potential investors. The Section had established contacts with UNCTAD, ILO and FAO with a view to identifying areas for joint action.

A special on-going programme had been introduced for land-locked and island developing countries. The Section was also actively engaged in follow-up action by way of feasibility studies, pilot demonstration plants and other projects in the Sudano-Sahelian Zone, where five of seven countries are LDCs.

The Expert Group Meeting elected Majid-ul-Haq (Bangladesh) as its Chairman. The two Vice-Chairmen were respectively Ahmed Sheikh Issa (Somalia) and Evariste Ncabungufi (Burundi). A. N. Singh Thapa (Nepal) was elected Rapporteur and P. Makhetha (Lesotho) Alternate Rapporteur.

The Agenda of the Meeting appears as annex I. It was approved and adopted with the amendment that the country papers might be presented individually by the delegates.

The following documents were distributed for consideration by the Meeting:

"Special problems facing least developed countries in promoting industrial development: actions and special measures required to meet the needs for accelerating their industrialization", working paper prepared by N. Tandon and B. Tomé, UNIDO consultants (ID/WG.234/2)

"Formulation of policy and special measures in favour of the least developed, land-locked and island developing countries", working paper prepared by the UNIDO secretariat (UNIDO/OED.17/Rev.1)

"How to assist the LDCs in designing national policies and strategies and effective plans for utilizing more fully their domestic resources for self-sustaining growth and diversification", paper prepared by the UNIDO secretariat (ID/WG.234/1)

"Integrated development of food and agricultural products conservation and processing industries in least developed countries", paper prepared by FAO (AGS:MIS/76/7)

(Country papers submitted by the participants from LDCs)

At the conclusion of the Meeting the participants from the LDCs and from the United Nations agencies recommended that such a dialogue with the LDCs should become a regular and continuous feature and that similar meetings should be organized by UNIDO and other United Nations agencies at least once a year. It was suggested that these meetings should be held, where possible, in the LDCs.

I. SPECIAL PROBLEMS FACING LEAST DEVELOPED COUNTRIES IN PROMOTING INDUSTRIAL DEVELOPMENT; WAYS AND MEANS OF OVERCOMING VARIOUS OBSTACLES TO THEIR INDUSTRIALIZATION

Discussions on this item were based on the working paper prepared by the UNIDO consultants, which was adopted by the Expert Group Meeting as an integral part of this report (see annex II) and on country papers presented by the participants from LDCs (summarized in part two).

The Meeting viewed with concern the fact that the economic situation of the LDCs had not improved in recent years, that it had in fact become worse with a few exceptions. Nine of the LDCs showed negative rates of growth, the rate of real GDP originating in manufacturing had declined and projections for the future, based on the assumption of a continuing growth rate, presented a far from cheerful picture. The handicaps arising from the historical inheritance of a colonial past, the land-locked position of 17 of the LDCs, low rates of literacy, weak capital bases, unemployment, resource gaps and inadequate educational systems called for special and unconventional measures of assistance. It was felt most important to make a sustained multidisciplinary attempt to ensure the speedy industrial development of these countries.

A basic point emerging clearly from the discussions was that the LDCs were determined to become self-reliant. They have been making an attempt to utilize their natural resources and endowments, to reduce their dependence on imports of food, consumer articles and manufactures, and to mobilize their internal resources. It was felt, however, that their difficulties and handicaps were so overpowering and acute that they could not achieve the objective of industrial development without a massive and continuous flow of financial and technical assistance that would be speedy and effective.

Another important point brought into clear focus was that the LDCs had a definite perception of the broad priorities and of the basic policy directions to be pursued. Thus, it was observed that the national plans gave priority to agriculture, infrastructure and industry. The importance of basic industries was recognized as was the need for dispersal, decentralized growth, labour-intensive technologies, small-sized industries, village industries and handicrafts. National plans had, however, suffered from shortfalls, and policy goals had not been realized in the absence of a comprehensive strategy and a package of measures. Among the reasons for the lack of a co-ordinated effort were the absence of a nucleus of multidisciplinary expertise and an effective executive agency, the lack of an assured flow of financial and technical assistance, insufficient co-ordination between various government agencies, and hesitation to provide one input without a reasonable hope that other inputs would be forthcoming.

Some of the basic components of an integrated and comprehensive approach to industrialization that were discussed are summarized in the following sections.

Investment policy

The Expert Group felt that the role of foreign investment should be clearly delineated. When the industry was of a basic or priority nature and when finance and indigenous capability were lacking, foreign investment might be welcomed and indeed an attempt should be made to attract it. Similarly, the national private sector should know where it stood in the national scheme and in what way it might aspire to participate. Policy could be defined to cover the area of investment, the manner of participation and other terms and conditions of collaboration.

Role of small-scale industries and handicrafts

The Expert Group considered that industrialization must follow an integrated pattern in which units of different types and scales had to play a part. While it was of crucial importance to develop basic and large-scale industries, the promotion and development of small-scale units and handicrafts also deserved particular attention. The reasons for giving special assistance to these sectors were twofold. First, the small-scale sector provided excellent answers to some of the problems of LDCs since it helped to generate employment, providing non-farm opportunities, promoting growth on a decentralized basis, upgrading skills and fostering entrepreneurial ability. Secondly, small-scale investors and artisans suffered from special handicaps and deserved special encouragement. It was therefore thought

necessary to define the small-scale sector in each country with the specific object of providing special assistance to it. In doing so, it would be better to establish a ceiling to be based on the amount of capital invested in fixed assets rather than on the number of workers employed, in view of the general shortage of capital and surplus of labour. There was also a need to define handicrafts separately so that special measures of assistance could be provided to that sector.

A decentralized network of extension services was needed which could assess the prospects of industries; select a location; estimate capital requirements and potential markets; provide guidance on the choice of raw materials and machinery and on management including finance, production planning and marketing; and give individual counselling to factories. A good part of this service could be provided by industrial service institutes which could be set up in different parts of a country. It might be advisable to integrate credit with technical assistance by ensuring that the extension agency should be in direct touch with the development bank or commercial banks. In the case of very small operations, the extension agency itself might give financial assistance speedily to small-scale units.

It was thought essential to identify promising product lines and to prepare project profiles. A few items might even be reserved for the small-scale sector.

The Expert Group also emphasized the need for complementarity between large-scale and small-scale units by promoting the growth of ancillary units.

It was important to organize external markets for traditional crafts. UNIDO, in close co-operation with other United Nations agencies, should play an important role in this activity, which was considered specifically applicable to land-locked countries because such products usually have a high value and low volume. The development of entrepreneurship should be given special attention.

Rural industries projects

The Expert Group felt that the links between the small-scale sector and the rural economy needed to be strengthened and that it would be advisable to set up intensive projects in rural areas based on two important factors, namely: (a) local resources, both human and material and (b) local needs, with the object of converting the present purely agricultural communities into agro-industrial communities and of attaining an even spread of industries throughout the countryside with a significant stress on non-farm opportunities. It might be best to locate these projects where a considerable effort in agriculture was being organized and where power was available, or in areas where large industrial units were being set up. It would be important to ensure that credit, technical and management assistance, factory sheds and training be available for this extension programme.

Parastatal Institutions

The Meeting considered that the LDCs would be greatly helped in their programmes if they could set up parastatal institutions for carrying out a number of activities. The institutions should have the flexibility, autonomy and effectiveness of commercial organizations and be oriented towards promotion and development. The corporations could undertake the following activities:

- (a) Construction of industrial estates;
- (b) Procurement and supply of machinery on a hire-purchase basis;
- (c) Procurement and supply of raw materials and ancillary items to industry;
- (d) Marketing of industrial projects;
- (e) Direct equity participation in ventures.

Substantial reductions in the initial margin money required for investment could be brought about if a scheme of hire-purchase operations for machinery and equipment, especially in the case of small and medium-scale industries, were implemented. Machinery and equipment could be procured and supplied by the parastatal corporation on a down payment of about 5 per cent; if the remaining sum of money could be repaid over a period of seven or eight years, a radical change could be brought about in the investment climate. It was therefore considered advisable for parastatal institutions to conduct these operations.

The establishment of such corporations might need substantial external assistance including grants and credit lines. It would therefore be best to ensure that assistance be made available mainly in the form of grants rather than credits, since, despite the best intentions of the countries concerned, not much progress had been made because of shortage of funds. An interagency effort might be necessary for the purpose.

Closer association with banks

The Meeting considered it imperative that the executive arm of the Ministry of Industry and the extension network at its command have a close association with development banks, commercial banks and other financial institutions. The staff promoting industrial enterprise, on the one hand, should be able to assist the borrower in presenting applications for loans in a form that would be acceptable to a bank and, on the other, should be able to explain the case to the bank in an effective manner.

It was also recommended that UNIDO assist the LDCs in getting loans from international banking and financial institutions and in ensuring that these loans be sanctioned with far less delay and complicated procedures than at present.

Credit guarantee scheme

The Expert Group considered it advisable that LDCs ensure that the lending policies of commercial banks should be much more positive and dynamic. This could be achieved by introducing a scheme of credit guarantees that could be administered by the central bank of the country on behalf of the Government. In other words, the central bank could become a guarantor. Commercial banks should participate in the scheme and should pay 1/10th of 1 per cent per annum to the central bank on the amount sanctioned or outstanding. The money thus deposited could be placed in reserve with the central bank, thereby underwriting about 75 per cent of the risk.

Physical infrastructure support

An imperative of any policy of industrialization of the LDCs would be the availability of physical infrastructure. The best strategy would be to identify potential centres of growth on the basis of techno-economic and social criteria. If basic infrastructure existed at any of these centres, it would be best to concentrate on them. It might be advisable in the second phase to turn to centres of potential growth where physical infrastructure was lacking and to set up rural industrial projects and general industrial complexes including industrial estates and other facilities. These centres would require a great amount of physical infrastructure support; and for this, substantial help and assistance would be necessary from external sources.

Where an outstanding natural endowment or resource was available in a country and when a project based on it was technically feasible but not economically viable in the absence of physical infrastructure, the normal standards of evaluating the worthiness of the project should be relaxed. It was most important to ensure in such circumstances that external assistance should become available through international agencies. It would not be right to evaluate the worthiness of the project only on the basis of what might be available at site, in disregard of the composite package of advantages flowing from it and of the fact that the entire economy and society would benefit from it. Actual instances of financial support from aid agencies for the development of infrastructure needed to be greatly increased.

In countries where hydroelectric potential was available special measures of assistance would be required, especially when the country concerned was land-locked.

The Expert Group thought it would be most important to study the subject in a comprehensive manner and to prepare master plans for infrastructure support. Expertise should be provided by international agencies in identifying infrastructure needs. In addition, programmes of infrastructure support ought to be coordinated at the regional level.

The land-locked and island developing countries should be given special encouragement and support in developing infrastructure.

Organizational and institutional support

The Meeting agreed that the executing agencies in the LDCs should be strong and effective. It was most important to ensure that the Ministry of Industry should have qualified staff with a techno-economic background. Similarly, the Ministry of Industry should be supported by a strong executive arm with a decentralized extension network in order to make a serious attempt to provide technical and management counselling and to motivate enterprise at the doorstep, as it were.

The LDCs should be provided with a strong nucleus of multidisciplinary expertise to assist them in policy formulation, in building up information systems, in carrying out economic surveys and studies of industrial prospects for products, in preparing project profiles and in carrying out pre-feasibility and feasibility studies, in advising Governments as to the type of machinery available the world over etc. This assistance was needed for a period of at least five years.

It was most important for UNIDO to help the LDCs by providing regular long-term projects for industrial-extension support services which should have the following objectives:

- (a) To evolve a policy and strategy for the development of industries in both urban and rural areas;
- (b) To organize a programme of industrial support services which would include building information systems and carrying out project identification and feasibility studies;
- (c) To help organize a technical and management extension service;
- (d) To establish an effective link between the extension service and the banking institutions of the country;
- (e) To help in operating industrial service centres, common facility services and mechanical workshops in industrial estates;
- (f) To organize and operate a network of rural industrial services through projects for rural industries which might include service workshops;
- (g) To train national officials who would be able to carry on a support services programme.

Standardization and quality control

The need for standardization and quality control was considered to be of overriding importance and it was urged that substantial external assistance be given in this sphere. It was, however, considered advisable to ensure that, in the initial stages, the standards should not be so stringent as to stifle production. The quality of indigenous raw materials would also have to be taken into account. The standards for internal consumption might therefore not be as high as those for export. The interest of the consumer might, however, have to be kept in view at all times. It would be important to ensure that testing centres be set up specifically for small-scale industries; they should not simply advise whether a particular project was up to the requisite standard, but they should explain what really went wrong with the manufacturing process and what should be done to correct the fault.

Other institutions

Recommendations were made for the establishment of certain institutions on a regional basis, as follows:

Extension training institutes for groups of countries covering a number of areas such as scientific demand analysis, principles of productivity and preparation of feasibility reports. These institutes could also help in entrepreneurial development

Institutions concentrating on the adaptation and development of technology evolved in other countries, especially developing countries

Institutes for tool design and manufacture

It was considered advisable to keep the LDCs informed of the existence of this type of institute all over the world in order to enable them to utilize their facilities. For example, the experience of the East African Community, which had set up specialized institutes in each of its member countries catering to their specific needs, could benefit other LDCs.

In countries where there were an especially large number of persons to be trained, national institutions might be used for the purpose.

Feasibility studies

The Expert Group felt that the indigenous capability of the countries to prepare feasibility studies needed to be strengthened. This could be done, inter alia, by building up information systems and acquiring statistics; by undertaking

pre-feasibility studies; and by providing industrial support services projects. It was most important to ensure the association of local personnel with the preparation and evaluation of feasibility studies.

There was a compelling need to provide substantial financial assistance on a grant basis to the LDCs in order to enable them to contract for a large number of feasibility studies with firms of repute. Feasibility studies should be entrusted to firms with actual manufacturing experience related to local needs and with a practical as distinct from an academic approach. Assistance of this kind needed to be greatly expanded.

There was also need for a link to be established between the preparation of feasibility studies and their actual implementation, by combining technical assistance with financial assistance. This link could be made by associating financial institutions at an early stage of the preparation of a feasibility study. It was important that UNIDO build up documentation on firms interested in specific projects in the LDCs, including, where required, the preparation of feasibility studies. UNIDO had an increasing role to play in preparing and updating feasibility studies and in securing investment promotion related to the various industrial projects to be implemented in the LDCs. It was also considered advisable that UNIDO prepare and supply to the LDCs standardized technical co-operation agreements for different kinds of projects and that it render the necessary advisory services.

One of the LDCs had established, with the assistance of the World Bank, a special unit which had worked out the terms of reference for a feasibility study and had ensured on its completion that it was in conformity with those terms of reference. The Expert Group felt that it would be a good idea to set up similar units in other LDCs.

Assistance to existing industries

The Expert Group urged that expertise should be provided for ensuring better utilisation of existing industrial capacities in the LDCs since the problem of underutilization of such capacities was acute in many of these countries. On the other hand, it was recommended that the problems of dislocation caused by the withdrawal of foreigners should be solved by a specially tailored programme of management and technical assistance to benefit the LDCs facing such problems.

Turnkey projects

The Expert Group considered it advisable that UNIDO accumulate documentation on firms interested in turnkey projects, especially from developing countries, for both large-scale and small-scale operations. The turnkey project could be a package consisting of the following components:

- (a) Selection of established manufacturers;
- (b) Preparation of a feasibility report;
- (c) Supply of know-how and other details including drawings;
- (d) Training of technicians and workers;
- (e) Installation of machinery;
- (f) Solving for a given period any bottle-necks during production.

Such a turnkey project might also be suitable for small-scale industries.

Turnkey projects should be examined in their totality, that is inclusive of the cost, and they should be adapted in a manner that could involve local participation as far as possible. It should be ensured that patents and royalties on machinery and production processes should not result in an exploitation of the LDCs. The United Nations agencies should work out a format whereby the interest of the LDCs could be upheld in this respect. However, some reservations were expressed:

- (a) Turnkey projects did not always help the development of local expertise; it would therefore be important to make sure that this aspect should not be neglected;
- (b) Such projects being in certain cases very costly, it would be necessary to keep the costs down;
- (c) Turnkey contractors had been known to supply second-hand machinery, prettily painted. This problem had been identified only afterwards when nothing could have been done about it. Moreover, in many cases no proper provisions had been made for training personnel, for securing spare parts etc.

It was most important to raise the competence of the country itself to decide what kind of turnkey projects it wanted. If the country lacked such competence, the international agencies could assist it both in acquiring competence and confidence and in actually negotiating specific projects. It was suggested that the Governments themselves should introduce clauses that they would like included in turnkey contracts, thereby eliminating some of the dangers that had been experienced in such operations.

The Expert Group emphasized that UNIDO, UNCTAD and other agencies concerned should help the LDCs in framing special contracts and in building up the institutional machinery enabling them to analyse and negotiate turnkey projects. In addition, documentation on the subject needed to be built up by the agencies concerned and placed at the disposal of the LDCs.

Export assistance

It was emphasized at the Meeting that an interesting and useful way of assisting the LDCs could be integrated assistance projects which offered a package in response to a number of related needs. It would be useful if these efforts could lead to multidisciplinary assistance projects with the increasing participation of UNIDO and other United Nations agencies. Short-term advisory and programming missions might be undertaken jointly by UNIDO and ITC to study markets for industrial products and to promote sales. Other observations and suggestions were:

(a) That the emphasis in export promotion assistance should be on particular products that a particular country could produce;

(b) That because the main source of foreign exchange of the LDCs was primary commodities and raw materials, assistance was greatly needed in processing these raw materials and in the export promotion of semi-finished or finished products, in order to bring the maximum benefit to the countries concerned;

(c) That the United Nations agencies concerned should collect and disseminate information on foreign markets in respect of industrial products available for exportation from the LDCs.

Manpower development

The Expert Group felt that a massive programme of educational development was necessary. There was need for introducing elements of vocational and technical training and the culture of work into the educational system. There was need, in terms of a short-term perspective, for a programme of both management and technical training designed for industry which would harmonize with the over-all objectives of national development plans. In many LDCs, the first step would be to survey the present and future needs and to work out a plan of assistance. ILO/UNIDO/UNESCO joint missions might be necessary to identify various needs.

The Expert Group also felt that ILO might have to place special emphasis in its programmes of assistance on this particular area.

The direct and immediate needs for training in the industrial sector were further discussed and it was agreed that priorities for assistance were in management and in technical and vocational training. In the field of management there could be: in-plant training, training of trainers, training in management techniques for small enterprises, on-the-job training, and special training for the management of mixed and public enterprises. Vocational training could take the form of apprenticeship, upgrading skills, and training of foremen. The need for training middle-level technicians was also emphasized.

The Expert Group agreed that the needs of the LDCs were of a special nature and that therefore a concrete outline of training systems would have to be developed

specifically for these countries. Such training programmes could be specialized courses abroad, in particular in developing countries; mobile training courses in the LDCs; the establishment of suitable educational and training institutions etc. The need was also stressed for estimating the different categories of personnel required by industry in the long term.

Recommendations made by the Expert Group on this subject were:

- (a) That the ILO vocational training should be of the highest standard and that there should not be recourse to intermediate bridging operations;
- (b) That the assistance of UNIDO should be more effective and that new measures should be introduced to improve the existing system, in particular, the development of specialized training courses geared to the needs of the LDCs. It might be a good idea if the LDCs were to introduce a new scheme for an in-plant training co-ordinator to be in constant touch with the industries within a given country. The co-ordinator might receive requests from these industries for guidance on the kind of training needed in various factories. When such a request was received through the co-ordinator, an expert for the specific job would be sent to the field;
- (c) That local universities should play a meaningful role by not confining themselves just to academic studies but by giving practical training and providing consultancy services. UNIDO in co-operation with other United Nations agencies could aid these universities in developing such programmes;
- (d) That when a degree was a prerequisite for a certain kind of in-plant training, arrangements should be made in co-ordination with UNESCO to provide the necessary educational facilities for obtaining such a degree;
- (e) That the United Nations University should play an increasing role in providing training to trainers, especially within the context of the World Food Programme, and the programme of social and economic development and in the utilization of raw material resources;
- (f) That a great deal of attention should be devoted to the establishment of an institutional framework. It would be necessary to identify the types of institutions required and to provide them with the necessary assistance;
- (g) That the greatest emphasis should be on building local expertise, so that when an expatriate expert left there would not be a vacuum;
- (h) That successful enterprises the world over should be utilized for imparting training to people from the LDCs;
- (i) That UNIDO in co-operation with other United Nations agencies should offer a package training programme from the planner to the personnel operating the plant. This training would have to be multidisciplinary and cover the selection and testing of raw materials, packaging, handling and transportation, apart from manufacturing and processing;
- (j) That the experience of developing countries, being of special relevance to the needs and circumstances of the LDCs, should be further explored and utilized. Preference should therefore be given to training facilities available in developing countries and to trainers from these countries;
- (k) That in view of the shortage of qualified accountants and experts in cost calculation, special attention might have to be given to training accountants and to instituting accounting systems in the LDCs;
- (l) That training should become an integral part of each industrial project and that the training programmes should not be subject to the occasional financial difficulties facing the United Nations system;

(m) That there was a need to set up regional training centres to cover areas of common interest for a certain number of LDCs.

Prime-mover industries

The Expert Group emphasized strongly that the LDCs might select for intensive development certain industries based on local resources which have a propulsive effect on different sectors of the economy. This concept would be a powerful instrument of change and would be particularly effective in bringing about an overall regional development. The objective should be to identify and develop intensively a central innovative activity with possibilities of rapid development and of stimulating a number of related activities. It was considered most important for UNIDO in co-operation with other agencies to help these countries identify and establish industries with rich local endowment which could provide an impetus for the diversified development of the national economy. It might be necessary to launch a programme for identifying industries that could play the role of prime mover for each country and to undertake field missions to determine the availability of infrastructural, organizational and managerial skill, marketing and other inputs that would strengthen the proposed concept and ensure its success. UNIDO was urged to work out a model and to implement the idea by making available the necessary inputs in each country.

Technical co-operation among developing countries

The idea of increasing co-operation among developing countries with the specific object of helping the LDCs in fulfilling their aspirations for industrial development was stressed. It was recommended that an earnest endeavour be made to promote a consortium of developing countries which had already made considerable progress in evolving indigenous capability expressly to assist the LDCs. The consortium could be a regular forum for a sustained and co-operative endeavour and would be a symbol of solidarity and mutual respect and concern among the developing countries. It would, however, be important to ensure that financial assistance from international resources be available. The consortium could help the LDCs with technological research, pilot demonstration plants and the location of suitable parties for turnkey projects. It might also be possible in some instances for the consortium to help the LDCs in creating their own plants.

Consultancy organizations in the developing countries might carry out pre-feasibility and feasibility studies at no cost for LDCs provided some costs, such as the costs for international travel and subsistence allowances for experts, were met by international agencies.

An area in which such assistance could be particularly useful would be training. Some developing countries would be able to arrange training at their extension training institutes and similar institutions and might even arrange courses specifically designed for the LDCs.

It was suggested at the Meeting that in order to implement this scheme successfully, the developing countries had to rely more on each other and not to look to the developed countries for new and innovative ideas. Moreover, there should be standardization of equipment and facilities within the developing countries so that problems of spare parts and maintenance could be overcome.

It was also recommended that design facilities be set up on a regional basis initially for the production of simple machinery. UNIDO and other agencies could assist in strengthening existing regional and national institutions that were engaged in the transfer of technology before considering the creation of new similar institutions in the developing countries, including the LDCs.

II. FORMULATION OF CONCEIVED ACTION AND SPECIAL MEASURES TO MEET THE NEEDS OF THE LEAST DEVELOPED COUNTRIES FOR ACCELERATING THEIR INDUSTRIALIZATION

Under this agenda item the Expert Group considered policy recommendations and procedures to be followed by UNIDO in co-operation with other United Nations agencies in providing technical assistance to the LDCs. The discussion was based on the working paper prepared by the UNIDO secretariat, "Formulation of policy and special measures in favour of the least developed, land-locked and island developing countries" (UNIDO/OED.17/Rev.1). The paper was adopted, with some changes, as an integral part of this report (see annex III). The main emphasis of the debate was placed on new approaches in solving the specific problems of these countries which would go beyond the conventional procedures and practices. Mention was made of the co-operation between UNIDO and UNCTAD and of the resolutions of UNCTAD IV in support of an increase in the flow of resources to the LDCs. It was pointed out that a number of the LDCs received much less than the others in assistance because they did not belong to a specific political grouping or other sphere of assistance. A target was needed for the equitable distribution of resources. It was also suggested that there should be greater flexibility in the pattern of United Nations assistance. It should not be compartmentalized with certain proportions assigned to particular components: so much for personnel, so much for equipment and so forth; countries should have greater leverage in varying the proportions.

Technical assistance

In reviewing and adopting the suggestions and recommendations contained in the working paper mentioned above, particular emphasis was given the following:

- (a) With regard to consultative and administrative measures, an additional recommendation was endorsed whereby UNIDO was requested to formulate and implement, in co-operation with other agencies, special programmes of technical assistance to LDCs concerning the examination of patent rights, royalties, negotiation of contracts etc. in projects involving foreign investment;
- (b) The need for assistance in promoting integrated development for which suggestions were made concerning:
 - (i) Identification and promotion of industries that provide linkages with other sectors of the economy, particularly with agriculture
 - (ii) Setting up labour-intensive industries, particularly in countries having a huge population and a large number of unemployed
 - (iii) Formulation and implementation of integrated rural development programmes
 - (iv) Development of local expertise;
- (c) The quality of UNIDO assistance to the LDCs needed considerable improvement to meet their real needs for sustained industrial growth and diversification and to encourage self-reliance;
- (d) Concerning financial measures, the Expert Group agreed on the following:
 - (i) Financial assistance from bilateral or multilateral financial agencies should preferably be in the form of grants, and if loans are sanctioned, their terms should be highly concessionary
 - (ii) The terms and conditions of technical assistance should be improved to meet the actual needs of the recipient LDCs; UNIDO should discontinue its present practice of sticking to a set pattern of technical assistance
 - (iii) The implementation of General Assembly resolution 3362 (S-VII) relating to the establishment of the Industrial Development Fund should be accelerated and it should be ensured that 75 per cent of the resources available under this Fund be earmarked for the LDCs
 - (iv) The allocation designated for LDCs under the SIS Programme and the UNIDO Regular Programme of technical assistance should be reconsidered and considerably increased to at least double the present level
 - (v) A sizable portion of the voluntary contributions to UNIDO should be utilized for implementing various programmes of assistance in the LDCs
 - (vi) UNIDO should take immediate steps to seek additional funds for the implementation, inter alia, of satellite industrial information centres wherever needed in the LDCs
 - (vii) It should be ensured that the UNDP financial crises do not affect various programmes of assistance to industry in the LDCs;
- (e) Attention was drawn to the need for further assistance in strengthening the existing industrial planning machinery in most of the LDCs. In case there was no such planning machinery, the countries concerned should be assisted in establishing it. The assistance offered by UNIDO in designing national policies, strategies and effective plans for industrial utilization of domestic resources was noted with interest.

Transfer of technology

One of the basic subjects discussed under agenda item 2 was transfer of technology. The need for the selection and development of appropriate technology, taking into account the various factors of the economy, was emphasized and studies of a multidisciplinary nature to determine the types of technology were recommended. It was urged that emphasis be placed on labour-intensive technologies and machinery. Since most of the economies of the LDCs are predominantly agricultural, the highest priority in transferring and developing technologies should be given to agro-industries and other industries which could satisfy local demand and reduce dependence on imports.

Suggestions were made for institutional machinery for the transfer of technology where appropriate in the form of a council of science and technology with committees on specific sectors, or technology selection and transfer centres. These centres would work in particular to raise the competence of these countries in assessing the benefits of the technology to be transferred and in obtaining it on the best terms. UNCTAD was invited to strengthen its co-operation with UNIDO in this respect. It was thought that a regional approach could best serve such a purpose.

External assistance was requested to help increase local capability and self-reliance. The recommendation was also made that assistance be given to the interested countries during their negotiations with the licensors to ensure reasonable terms for the transfer of know-how.

Other observations and suggestions on this subject were:

(a) Most of the technologies now available for a large number of industries were not appropriate for the developing countries and there was a danger in some cases of taking obsolete technologies which would raise the cost of production and perpetuate the low quality of products in the developing countries. In other cases, even if modern machinery were available, it might be preferable to choose older machinery which would be more labour-intensive and which could be operated by local personnel. Therefore, each country should have its own criteria of technology selection which would also depend on the market to be served;

(b) Since some countries, including LDCs, were already doing research on development of equipment utilizing solar energy, assistance should be given to these countries to strengthen and develop such facilities;

(c) Comprehensive training programmes should be given in the operation and maintenance of industrial equipment;

(d) When financial assistance was provided for the purchase of equipment, financing institutions should make it a point that preference be given to locally available equipment as far as possible;

(e) Projects sponsored by UNIDO, including engineering studies, should associate local consultancy or expertise wherever possible.

Relationship between UNIDO and LDCs

The Expert Group was unanimous in stressing that UNIDO should improve its effectiveness and its relationship with the LDCs. To this end, it was very important that UNIDO should become a specialized agency as soon as possible. The Governments of the LDCs should help in this direction by taking up the matter through their permanent missions to the United Nations Secretariat and with their delegations to the United Nations General Assembly. Meanwhile, direct channels of communication should be established between UNIDO and these countries.

The Senior Industrial Development Field Advisers (SIDFAs) could play a very important role in establishing direct contact with the authorities in LDCs and in ensuring the proper co-ordination of efforts being made by various United Nations agencies in providing assistance to them in the industrial field. It was therefore strongly recommended that UNIDO should increase the number of SIDFAs, and the policy concerning their assignment should be reviewed to make sure that the LDCs should be given high priority in their placement. Meanwhile, an effort should be made by UNIDO to place Junior Professional Officers (JPOs) in LDCs where no SIDFAs were posted. It was also recommended that UNIDO should take full control of all matters relating to the recruitment, placement and activities of both SIDFAs and JPOs. The suggestion was also made that UNIDO and other United Nations agencies should consider the assignment of qualified local personnel in implementing United Nations-assisted projects in their own countries.

Finally, there was general agreement that the recommendations concerning policy and special measures in favour of the least developed, land-locked and island developing countries needed to be brought to the attention of the Industrial Development Board.

III. MOBILIZATION OF FINANCIAL AND OTHER CONTRIBUTIONS FROM FOREIGN PUBLIC SOURCES TO IMPLEMENT VARIOUS PROJECTS IN THE LDCS

While some references to this subject were made during discussion of agenda item 2, the matter was covered specifically under item 3 of the agenda in the last part of the Meeting, when representatives from financial and technical assistance institutions were also present.

It was pointed out that the LDCs attached great importance to broadening their industrial capacity and to securing a larger share of investment or finance than they had received so far in the industrial sector. While the primary

responsibility for formulating and implementing programmes for effective international co-operation rested with the countries themselves, technical and financial assistance from UNIDO and other agencies was needed. The Expert Group felt that in order to raise the share of the LDCs in world industrial production, certain measures were necessary, inter alia:

- (a) To find practical ways of bringing bankable projects to the attention of the industrial and financial centres;
- (b) To create and build up a mechanism in the LDCs to undertake feasibility studies and to evaluate the viability of various industrial projects;
- (c) To ensure a continuous dialogue between LDCs, donor countries and international agencies.

UNIDO was called upon to make all efforts to generate funds and to secure additional finance from Governments with aid programmes and from financial development institutions. Since most of the LDCs faced some difficulties in making their needs for investment capital and know-how known, UNIDO was requested to assist them:

- (a) In strengthening their capacity to undertake pre-investment studies, project identification and preparation, and to collect, analyse and disseminate information and data on which financial institutions, Governments and other potential investors might base investment decisions;
- (b) In helping the existing national industrial promotion centres to promote viable investment projects after they had been identified;
- (c) In disseminating information received from the LDCs regarding their needs for investment to as wide a circle of financial institutions, Governments and industrialists as possible;
- (d) In establishing a network of contacts between the LDCs and UNIDO, on the one hand, and the above-mentioned circles on the other;
- (e) In establishing investment promotion offices or development centres financed from extra-budgetary resources, in the industrialized countries. Such offices would be intended to provide a wider audience of potential financiers and would make for permanent channels of communication with industrial and financial circles. They could also be very useful in identifying the particular firms that might be interested in a specific project. Their activities would not be restricted to the presentation of potentially viable projects, but they would also include advice to LDCs on the best means of finding finance, know-how, industrial information etc.

The Expert Group urged the Executive Director of UNIDO to approach the various funds, such as the Arab Fund, the Venezuela Fund, the Nigeria Fund, the OPEC Special Fund, the Council for Mutual Economic Assistance (CMEA) Special Fund, and others, to earmark a substantial proportion of their aid resources for the industrialization of the LDCs. These funds could be used for special technical assistance in the field of industry as actually required by the LDCs and be channelled as institutional credit to the development financing institutions of LDCs for sub-lending to small and medium-scale industries and for financing non-banking promotional agencies to help these countries in strengthening their institutional machinery.

Part two

SUMMARIES OF COUNTRY PAPERS

I. AFGHANISTAN

The Republic of Afghanistan is at present primarily an agricultural country. Nevertheless, it has a well-established industrial sector and it is the policy of the Government to expand this progressively with the objective of further developing both export and import-replacement activities.

Important and expanding industries include textiles, cement and sugar; these are based on home-produced raw materials. Electricity supply is being increased to support the domestic and industrial expansion. Mining is important; natural gas is being exported; possibilities exist for petroleum production; and the extraction of iron and copper ore is under close investigation. Action is being taken to improve the structure, management and control of commerce and industry. An Industrial Development Bank has been established, and the Government has nationalized commercial banks with the objective of facilitating the provision of necessary capital.

The objectives of the Government are to achieve:

- (a) Higher living standards through accelerated industrial and agricultural development and through diversification of industrial activities;
- (b) More employment and increased training for managers, engineers, technologists, skilled workers etc.;
- (c) Even distribution of new industrial activities.

As in any developing country, industrial expansion is subject to problems and constraints. There is insufficient capital to finance what needs to be done and assistance must be sought from external sources. Many established enterprises are working below their rated capacity. There is an insufficiency of technically trained personnel; it is necessary to raise a new generation of managers who can effectively manage the existing and proposed industrial plants.

While industrial planning is being undertaken, it is not yet as developed as it needs to be; more comprehensive procedures for both planning and evaluation are required.

The Government would like to receive assistance for two projects, namely a livestock project and a project based on forestry. There is an imperative need to utilize the transmission line, which has a capacity of 33,000 kW; the line passes through a vast and wide unirrigated area where sufficient underground

water is available. The electricity must be used in its load-off time, that is, at the time when electricity is not used by the factories, plants or the public, such as the hours during the weekends when the factories are closed, or late at night when people make less use of it. It would be very economical to dig deep wells in this area and to use the water for making pasture land for a livestock project, which would provide the base for a number of agro-industrial projects such as slaughterhouses, tanneries and dairies.

The second project deals with proper utilization of existing forests in the country. The project would have at least two phases:

(a) The existing forests must be utilized in a technical or scientific manner in order to avoid misuse and destruction of the forest in a very short time;

(b) The product of the forest, which is wood for furniture and construction, should be used in such a way that wastes, which are estimated at more than 50 per cent, are avoided. New wood-based industries can be established such as sawmills, chipboard, plywood and hardboard. Some of these industries would use the wood while others could use the wood-waste.

II. BANGLADESH

The contribution of the industrial sector to the GDP of Bangladesh is about 10 per cent, which is one of the lowest in the world. The modest industrialization that has been achieved is in jute, textiles, sugar, edible oil, fruit processing, the preservation and canning of fish, paper, newsprint, leather, forest industries, sericulture, tea processing etc. Even the present situation is an improvement over the one prevailing at the time of the partition of India in 1947 when the contribution of the industrial sector to the GDP of the region was only about 4 per cent. Agriculture is the major sector of the economy; it still contributes about 60 per cent of GDP.

The problems faced by Bangladesh in its industrial development are the lack of untapped resources, of adequate infrastructural facilities, of funds, of appropriate technical know-how, of technically qualified managerial, supervisory and skilled personnel, of entrepreneurship etc. The war in 1971 devastated the industries and the infrastructure, thus adding to these problems. The large population in a limited area also presents a special problem in this country.

In order to overcome its problems and expand its industrial activity, Bangladesh has adopted a policy for developing both public and private sector industry, giving liberal fiscal and other incentives. Foreign private investment has also been encouraged and a number of facilities have been granted to

foreign companies. The Government launched a five-year development plan in 1973 with a provision of \$US 1,200 million for industrial development.

Bangladesh has approached UNIDO with a large list of projects for technical assistance in priority areas. UNIDO has approved 12 projects involving an amount of over \$US 900,000. The country expects to present 15 more project proposals for UNIDO technical assistance. These are in the priority areas and their early implementation would help in the industrial development of the country.

III. BENIN

The People's Republic of Benin has decided in recent years to work towards an independent and modern national economy with the following goals:

- (a) Intensifying by every means local production as the basis of national economic program;
- (b) Establishing the basis for a process of industrialization which would be able to impart a driving force to the national economy;
- (c) Reorganizing state and parastatal enterprises to enable them to attain higher productivity;
- (d) Establishing new industrial units in areas where raw materials are available;
- (e) Taking over responsibility for training nationals who would be able to promote industrial development;
- (f) Co-ordinating economic development on the basis of scientific planning. In this context industrialization should not merely be an appendage of agricultural development but the two should move forward hand in hand, strengthening one another.

Industry should satisfy the needs of the working people for food, clothing, housing, jobs, better education and health. The over-all objective is to attain self-reliance and an exportable surplus.

Despite the efforts made by the Government, industrial development until 1976 was feeble. Several industrial enterprises are involved in processing agricultural raw materials, the most important being palm oil, building materials and textiles. A certain number of medium-sized industrial enterprises make shoes, animal foods and perfumes, and are engaged in metal processing, assembling of cars and bicycles, flour-milling etc.

IV. BURUNDI

Before independence in 1962 Burundi had only a few small enterprises the capacities of which were underutilized. They were basically subsidiaries of

foreign enterprises which were not willing to make a significant investment in Burundi. One of the first tasks was, therefore, to ask foreign companies to modernize their plants and equipment. The results, however, were not satisfactory.

The objectives of the Government in promoting industrial development are basically two: (a) promotion of new national industries after prior investigation and study and (b) assistance to the existing industries and further investigation of markets for their products. To reach these objectives the Government has inaugurated a code of investment which is very favourable to investors. There is provision, among others, for total or partial tax holidays and exemption from duties for machinery and raw materials that are imported for manufacturing activities. At the same time the Government is trying to reach agreements with neighbouring countries with a view to ensuring markets for the manufactured products. Technical and economic co-operation agreements have been reached with the Governments of **Gabon, Rwanda and Zaire.**

As an important means of industrial promotion the Government has established a department of industry and handicrafts in which several UNIDO experts have been co-operating with local personnel in identifying viable industrial projects. As a result, more than 20 industrial projects were identified during 1974-1976, out of which 13 have either been implemented or are in the process of implementation. In this way the Government has been able to make considerable savings in foreign exchange, to create new jobs and to increase the purchasing power of the local population.

The specific problems faced by Burundi in promoting industrial development are mainly the following:

- (a) Being a land-locked country, the transportation cost of importing and exporting goods is very high and affects the competitiveness of manufactured products in foreign markets;
- (b) Lack of skills at various levels makes difficult an intensive utilization of available agricultural raw materials and mineral resources;
- (c) Lack of knowledge and experience hampers the selection of adequate technologies once a project has been examined and proved to be viable.

Burundi would therefore like to receive more assistance from various United Nations agencies in these areas.

V. CHAD

In spite of the industrialization policy adopted by the Government from the earliest days of independence, Chad lags far behind neighbouring countries which are better endowed by nature. If the number of industrial plants has not

increased satisfactorily, this is because many difficulties have been encountered largely owing to natural conditions: long distances which make transport expensive and difficult and involve considerable storage costs and financial charges; a small market which hampers the amortization of fixed assets; very high building costs; scarcity of local raw materials; and inadequate and expensive electricity supply.

In addition to such difficulties, other problems of a structural nature act as a brake on the country's industrial development, including:

(a) Lack of industrial infrastructure, which discourages investors, who do not find a site ready for the establishment of a plant or an industrial environment likely to favour the launching of new industries;

(b) Lack of finance for small and medium-scale domestic enterprises owing to the very low domestic propensity to save. The problem of financing also results from the fact that it is difficult for small domestic investors to obtain bank loans;

(c) Absence of domestic technical personnel and inadequacy of technical training, which often make it necessary to employ foreign technical staff who are too expensive for small firms.

In addition, a series of difficulties are common to Chad and other landlocked countries with small populations:

(a) For many industrial products, the present domestic market is too small. At the same time, the machines available on the international market have increasingly large capacities. In order to benefit from economies of scale or even to make it possible to establish a factory with a market proportionate to its capacity, theoretically neighbouring countries should combine resources to set up joint ventures. To date, the experience of Chad in this field has been negative. Most raw materials are imported, and it is not economically feasible to transport such material to Chad, which lies in the middle of the continent, and then send the finished products to neighbouring countries where the main markets are generally in the ports;

(b) The country still has virtually no domestic engineers with a knowledge of electronics, electro-technology, automation and other modern techniques. On the other hand, it has a superabundance of unskilled workers. The equipment offered to Chad is generally extremely expensive (especially when the costs and risks of transport and assembly are taken into account); it is based increasingly on complex technology and requires periodic servicing by highly skilled personnel. What is needed is simple, robust machines that are easy to operate and to repair on the spot;

(c) Similar problems exist with regard to management. The organization models that are offered, the courses and seminars held on management, suggest management methods very difficult to apply in Chad where there are no properly qualified accountants, no computers and no reliable general trade statistics.

In 1972, the Government decided to establish the Bureau de promotion industrielle du Tchad (BPIT) (the Chad Industrial Promotion Bureau) as the mainspring for the industrialization of Chad by its own people, working in co-operation with the civil service departments, in particular with the Directorate of Industry and the Directorate of Planning. The decision was

taken with a view to improving the prevailing situation in industry. BPIT, established with financial assistance from the United Nations, is just starting its operations. Its functions are:

- (a) To identify and formulate viable projects that would justify an investment;
- (b) To find and interest investors;
- (c) To give technical assistance in the implementation of projects;
- (d) If necessary, at the request of the promoter, to assist in the management of the undertakings thus established and to train their staff.

BPIT is concerned not only with small domestic undertakings but is also required to play a part in industrial promotion at all levels. Consequently, it offers its services to those who are interested in the industrialization of the country, seeking them out, informing and advising them, and putting them in contact with each other. The work of BPIT has already begun to bear fruit; several small firms have been started with its assistance and their operations are benefitting from its technical aid. The Bureau is currently looking for investors to implement the small-scale projects that it has identified and formulated.

In addition to the successful experience of BPIT, a number of important projects, such as the sugar complex, the agricultural equipment factory and the cotton-seed oil works are about to be implemented.

In view of the work being done by BPIT and the determination of the Government of Chad to promote industrial development, it may be hoped that future years will see more progress in this sphere. Nevertheless, it must be borne in mind that the critical problems mentioned above will continue to exist for a long time to come.

VI. ETHIOPIA

The economy of Ethiopia is predominantly agricultural. Industry has a modest share of the GDP. In terms of growth rate, however, it has been one of the most dynamic sectors of the economy, with the growth of real output averaging 8 per cent per annum in the period 1967/68 to 1973/74. Employment in the sector increased at a rate of 3.6 per cent per annum from 1966/67 to 1972/73. A number of industries established in recent years have been relying heavily on imported raw materials. Information on small-scale manufacturing enterprises is incomplete. Indications are that output has grown at a substantially lower rate. Very little policy support has been given to such small-scale enterprises to date.

Ethiopia has had three five-year development plans. The third five-year plan (1968-1974) set the following goals for the manufacturing sector:

- (a) To encourage the processing of locally available raw materials;
- (b) To continue encouragement of import-substitution industries;
- (c) To provide low-cost equipment and consumer goods to peasant agriculture;
- (d) To develop new urban growth centres, besides the old industrial zones of Amara, Addis Ababa and Dire Dawa, where employment could be provided to local people in manufacturing and processing industries;
- (e) To give attention to those industries which through forward and/or backward linkages stimulate the growth of other sectors;
- (f) To utilize the abundant supply of unskilled workers.

One of the major problems of industrialization stems from the lack of a meaningful development plan both at the national and sectoral levels. Until very recently the productive forces in industry were owned by a few national capitalist and foreign investors, and, therefore, decisions on the types and directions of production and investment were not geared to generating the dynamic internal growth of industry; the objective was to amass exorbitant profits. Consequently, investments were concentrated in a few lucrative sub-sectors such as food, beverages and textiles. There have not been definite objectives and policies with regard to the role of industry and its possible contribution to the economy in terms of employment.

A second problem is that many manufacturing industries in Ethiopia rely heavily on imported raw materials and intermediate goods for their operation. Agriculture is currently developing in a direction isolated from the needs of industry, and a lack of policy on intersectoral linkage has deprived the industrial sector from the benefits of a cheap and continuous supply of inputs.

Another policy problem has been caused by the absence of a framework for project preparation, appraisal and implementation. There is no policy for the choice of technology to be adopted for particular projects and programmes in a given sector. This situation has resulted in a neglect of small-scale industries despite their potential advantages in terms of employment creation, income distribution, savings in imported capital and technology requirements, utilization of indigenous skill and other resources etc.

Managers and financial analysts are in short supply. Foreign personnel undertake feasibility studies and engineering designs, draw up specifications and supervise construction and installation works. This situation inflates the capital costs of industrial projects and perpetuates the dependence on the developed countries for industrialization, consequently retarding the development of a locally generated and integrated industry.

No less important than the above problems is the limited capacity for the development of basic and impact-creating industries such as iron and steel, and strategic chemicals such as fertilizers and petrochemicals. Economic and technological realities dictate that projects cannot operate below a certain minimum capacity. However, because of the smallness of the market for the products of such basic industries, it is not yet worthwhile to make the required investment in them. Thus it has been difficult to make domestically produced engineering items, agricultural machinery, electrical equipment and other strategic inputs at reasonable prices and in the desired quantity.

Shortage of domestic savings is another important restrictive factor. Some industrial projects suffer from lack of resources for financing capital costs, costs for engaging experienced foreign personnel and consultants and other operation expenditures. This has often led to the postponement or delay in the execution of projects. An even graver problem is foreign-exchange limitations.

There is an urgent need for mobilization of external financial and technical assistance under the most desirable conditions which would suit the political, economic and social climate of Ethiopia as a strategic supplement to local efforts and resources. It should be noted, however, that support coming from external sources is a temporary substitute for domestic resources in view of the country's objective of self-reliance.

The following steps could be taken by international bilateral and multilateral organizations to assist the LDCs (including Ethiopia) to meet their needs for accelerating industrialization:

(a) Technical and financial assistance in preparing policies and plans for attaining a more rapid industrialization. Particular attention should be given to the establishment of basic industries. Emphasis should be placed on projects that create means of production, generate cross-sectoral and inter-regional linkages, and have the greatest possible multiplier effects;

(b) A special programme of assistance should be designed for the specific purpose of developing rural industries;

(c) Strong support should be given to alleviate the shortages of high-level and middle-level advisory and operational personnel through local training programmes, fellowships, workshops etc.;

(d) Both bilateral and multilateral donors should co-ordinate and pool their assistance to the LDCs with a view to creating a strong impact on the development of the industrial sector, instead of allowing, as at present, the dispersal of assistance in a diverse array of activities.

VII. NEPAL

Nepal is at a very early stage of industrial development. The latest estimates of GDP indicate that the agricultural sector accounted for 69 per cent of total GDP at market prices and manufacturing (excluding cottage and village industry) for just over 3 per cent. The whole population is engaged in agriculture. Mostly hilly and land-locked, the country is handicapped by extremely difficult terrain. Except for the huge untapped hydroelectric potential, other natural resources have not yet been found in abundance. The country's trade balance with its large neighbour India is adverse and deteriorating every year. Owing to its land-locked position and the difficulties in transport it is difficult to establish large-scale industries for export promotion in an intensive manner. Fortunately for Nepal, its scenic beauty, the Himalayas, its unatched wood carving and its temples have attracted a growing tourist trade.

His Majesty's Government of Nepal has embarked on a policy of developing agro-based industries and on industries for import substitution. At present, it is concentrating on a comprehensive programme of planning for the establishment of sugar, tea, pulp and paper, iron and steel, pharmaceutical, electrical goods and accessories, magnesite (fused magnesium phosphate and bricks) and fruit canning and preservation industries, among others, and on the promotion of tourism. In all these industries, except iron and steel and magnesite, the Government has an open policy allowing both domestic and foreign private investment. In addition, the Government guarantees repayment of capital and interest (if in foreign exchange) and the repatriation of capital of 10 per cent per annum and 25 per cent of profits attributable to any outside equity investment.

The government-owned Industrial Development Bank and commercial banks also participate in loan and equity financing of industrial projects. The Industrial Services Centre and other investment promotion institutions help potential investors with all the necessary banking assistance to establish and operate industries in Nepal.

In the view of the Government, UNIDO and other agencies could render assistance in updating industrial feasibility studies and in preparing bankable project reports. Also needed are advisory services, help in training counterpart personnel in institutions related to industrial development and the necessary equipment and other physical support services. It is important that Nepal receive sufficient help in the development and operation of a sound management development programme. UNIDO could also assist by helping Nepal to promote bankable projects in association with the World Bank and other international financing agencies.

VIII. NIGER

As Niger is a land-locked country, it faces serious difficulties in high transportation costs. The limited national market affects the efficiency of industrial enterprises in the sense that they cannot maximize their production capacity, and banking facilities are not sufficient. There are only two banks, namely, the Development Bank, which offers occasional long-term credits, and a commercial bank. There is, therefore, lack of financial resources for industrial promotion. Another problem is that imported technologies are not appropriate to the needs of the country. Most of these are so complex and capital-intensive that they perpetuate dependence on foreign countries. There is also a lack of qualified personnel at both policy and execution levels. Finally, another obstacle is the inadequacy of institutional and physical infrastructure.

It is worth mentioning that there is not much interest on the part of the nationals in industrial development. This is owing to a variety of reasons, such as lack of incentives from banks, bottle-necks arising in the initial years of operation and the local preference for trading rather than industrial enterprise.

IX. SAMOA

Prior to independence in 1962, the only major economic activities in Samoa revolved around agriculture in general and three agricultural commodities in particular: cocoa, copra and bananas. These were produced and exported as raw materials. Industrialization founded on the absence of any base invariably tends to be slow. This has been the experience of Samoa in the recent two development plan periods 1965-1969 and 1970-1975. The third five-year development plan takes into account the particular need to accelerate industrial development, assisted by a slowly but ever-growing industrial base and deliberate fiscal policies.

With an area of 1,100 square miles and a population of 155,000, Samoa is 2,613 miles south-west of Hawaii, 2,700 miles from Sydney, 1,800 miles north-west of New Zealand, and 793 miles from Fiji. The size of its population and its geographical isolation immediately pose a problem for industrialization. With such a limited local market, industrial production to be economically efficient must be focused on both import substitution and export earnings.

The resource that the country needs to develop most in the next 10 years is managerial and technical talent at the upper and middle levels. Fiscal and financial incentives are available to attract industry, but such measures can easily be self-defeating if expansion outpaces the growth of the available pool of managerial and technical talent, including professionals recruited from abroad.

In the past, the bulk of foreign assistance to Samoa, both bilateral and multilateral, was concentrated on infrastructural requirements. The result has been that the present labour force is essentially intelligent and literate but unskilled. The emphasis is, therefore, on new industries and service activities which can employ intelligent and literate, but unskilled workers in activities where their productivity can increase and their technical and managerial skills can be rapidly upgraded. New enterprises will necessarily, therefore, be geared to the relatively small internal consumption of Samoa, its relatively modest volume of primary production and limited labour force.

Being an isolated island economy, the country also suffers from irregular shipping which affects industrial production as well as the export of perishable agricultural products. Regular and reliable freight services are hence being actively sought by the Government.

The first major step taken by Samoa in a conscious attempt to promote industrial development was the enactment in 1965 of the Enterprises Incentives legislation, which gave entrepreneurs various benefits including income tax holidays and import duty concessions. Most of the relatively small enterprises developed by local entrepreneurs were created with the assistance of such benefits. Additional legislation was enacted in 1974 allowing the establishment of an industrial free zone. This scheme is designed primarily to attract foreign investment and involves an assembly type of operation that is labour-intensive and directed to export markets. The Government has accelerated the rate of economic diversification by allowing a local producer of agricultural products, the Western Samoa Trust Estates Corporation, to expand into agro-based industries, including animal feed, soap manufacture and meat processing. While some fruits have been exported in the past and continue to be exported, a fruit-processing factory is envisaged for 1977. Allied with this particular industry is the promotion of rural agricultural production of these fruits on a commercial basis. This is integrated with

the over-all village development programme. The Government is also active in promoting and establishing major industries, including a brewery, coconut oil mill, match factory etc. For such major government-sponsored industries Samoa urgently seeks the assistance of UNIDO, especially in the provision of technical assistance and in conducting various studies.

Although industrialization efforts began more than a decade ago, there is still not a proper industrial monitoring and appraisal unit, although statistical data are gathered by the Statistics Department. Such an appraisal unit could be set up with the technical assistance of UNIDO. It would facilitate the evaluation of the industrial process in Samoa.

Samoa may not have the necessary raw material and mineral resources for major industrialization, but it does have a congenial landscape and cultural features that would be conducive to a tourist industry. This source of foreign exchange is gradually being exploited and will complement advancement in other industrial sectors.

X. SOMALIA

The industrial development of Somalia, as that of most other LDCs, is hindered by a variety of problems and constraints. In addition to the under-utilization of installed capacity, these are the absence or inadequacy of:

Physical infrastructure

Trained manpower

Finance (in particular external currency) and financing institutions

Market and facilities of market development

Expertise to facilitate the transfer of technology

Institutions for promotion and supporting investment promotion, project selection, project formulation and implementation

Industrial policy

Lack of or inadequate infrastructure restricts the choice of locating industrial plants, increases the investment cost substantially and adversely affects the economics and profitability of industry. In Somalia an industrial enterprise is invariably required to invest in the construction of an approach

road, the installation of a power-generating set, pumping set or tubewell for water, and the construction of a sewage line, sometimes several kilometers long. Industry is concentrated in the port towns of Mogadiscio, Kismayo and Berbera. Lack of adequate harbour facilities make the establishment of large-size projects difficult or necessitate the inclusion of a harbour exclusively for that project.

Lack of trained manpower causes delay in realizing industrial projects, and results in underutilization of installed capacity and poor maintenance of industrial plants. Efforts are being made to overcome this problem. The University of Mogadiscio now provides courses in engineering, economics, chemistry etc. A polytechnical institute is also being established. Two technical training institutes, a vocational training centre, a craft training workshop, a school of accountancy and surveying and a fishery and maritime institute have been established. The Somali Institute of Development and Management provides in-service training facilities for managers and accountants. Training facilities in specialized fields of technology, economics, management, commerce and accountancy do not yet exist and it is not feasible to create these facilities at the present stage of development. It is therefore necessary to send a fairly large number of qualified Somali citizens abroad for training on fellowships offered by United Nations agencies and friendly countries.

Capital is needed both in local and foreign currency for industrial development. Long-term soft loans rarely become available to the LDCs. Loans on commercial terms are too expensive and sometimes make industry in a country such as Somalia uneconomic.

Nearly all large-sized industrial projects are in the public sector. Profitability of public-sector industry is not enough to ensure capital formation at a satisfactory pace.

The smallness of the market makes modern industrial plants for producing consumer goods unfeasible. Thus, when such plants are established, intermediate technology is perforce chosen to keep production at the level of local consumption and market possibility. This results in a higher cost of production and makes locally produced consumer goods expensive and uncompetitive with imported goods, thus necessitating tariff protection or any other type of subsidy.

Lack of expertise obliges the LDCs to buy technology, simple or sophisticated, whether suited to their conditions or not, at the price offered. Foreign suppliers of machinery, equipment and technology are fully aware of this

incapacity to assess requirements for technology and to evaluate the offers received, which are not always based on tender documents or made in response to specific requests. Thus, the LDCs are amenable to exploitation, which is a situation that needs to be changed.

There are various reasons for the underutilization of installed industrial capacity in Somalia. For instance, fish factories operate below capacity because of inadequate catch resulting from lack of fishing fleets and fishing harbours. The capacity installed for processing and canning meat is underutilized because of the low prices of these products in the foreign market. The sugar-mill does not work up to its capacity because of the short supply of sugar-cane, which in turn is owing to problems of agronomy and water supply. It is therefore obvious that high priority should be given the full utilization of existing industrial capacity.

Somalia does not have the expertise to investigate and assess the prospects of different industries and to identify viable industrial projects. Economic and industrial data are not readily available, nor are there institutions to formulate industrial projects or to undertake feasibility studies. Similarly, in all matters related to project implementation, Somalia has to seek help beyond its borders. As a consequence, the gestation period for an industrial project is very long.

The LDCs in general design their industrial policies primarily for achieving import substitution. In formulating such policies no consideration is paid to the optimum utilization of existing installed capacity or to small industry.

XI. SUDAN

On the eve of independence of the Sudan, in 1955-1956, the manufacturing sector contributed a mere 1 per cent to GDP and employed less than 10,000 workers. Therefore, the creation of an industrial sector, both public and private, to serve as a powerful instrument in an over-all balanced socio-economic development, has become the main concern of the Government, which has developed a number of projects in the sub-sectors of sugar, textiles, chemicals, leather and engineering.

Despite the recent significant progress attained (the contribution of the manufacturing sector to GDP has reached 15 per cent and employment has risen to over 200,000), several constraints persist, such as transportation

bottle-necks, sharp increases in the cost of machinery and spare parts, delays in foreign exchange allocations, shortage of raw materials, underutilization of capacity, inadequacy of skilled or sufficiently qualified personnel, deficiency in appraisal capabilities, and an information gap which seriously handicaps the Government in making decisions on a number of vital issues.

The following measures have priority:

- Improvement of physical and social infrastructure, mainly transport
- Improvement of appraisal capabilities
- Emphasis on efficiency and specialized production, and on proper quality control
- Investigation of underutilization of capacity
- Transition to a more viable and higher stage of import substitution through development of dynamic industries, intermediate industries, industries providing various inputs and propulsive industries
- Limitation of private-sector activity in industry to raising the productivity of the large traditional sector and to transforming it
- The public sector should continue to set the main trend of industrial development
- More relevant training programmes

The following technical assistance is needed:

- Experts in industrial engineering and financial economics as well as in textile, leather and canning industries
- Training in project analysis
- Rationalization of existing institutions
- Establishment of investment promotion machinery
- Development of secondary wood processing
- Carrying out surveys for the chemical industries potentialities
- Assistance to the Khartoum foundry
- Establishment of a mechanical workshop in the southern region
- Assistance to the Wau canning factory

XII. UNITED REPUBLIC OF TANZANIA

The performance of the industrial sector in the United Republic of Tanzania since Independence in December 1961 has not been impressive, although the country has recorded modest growth. At the time of Independence the industrial sector contributed about 3.5 per cent to GDP and employed 22,000 people or 9 per cent of the total employed labour force. In 1975 the contribution of

the industrial sector to GDP was 10.6 per cent and the number of employed was 75-768 or 16.3 per cent of total employment. In terms of exports, in 1968 the industrial sector contributed about 8.4 per cent in value of total exports and, in 1975, its contribution to exports was 14.2 per cent. In 1961, 54 per cent of imports were consumer goods and 46 per cent were intermediate and capital goods; in 1975 the corresponding figures were 31.4 per cent and 68.6 per cent, thus indicating a shift to the local manufacture of consumer goods.

The United Republic of Tanzania has defined its industrial development as based on the development of man, his habitat and needs. The growth of agriculture is recognized as a priority (the basic sector is agriculture and the dynamic sector is industry) in view of the fact that 95 per cent of the people live in rural areas.

The main tasks of industry are:

- (a) To produce consumer goods which would meet the basic needs of most of the population, using raw materials available locally;
- (b) To support the agricultural sector by producing the main inputs for this sector;
- (c) To set up industries to manufacture intermediate and capital goods for these supporting industries, which are metalworking and chemical industries.

In recognition of the need for small-scale industries in transforming the rural sector and their contribution to the dispersion of technology to rural areas, a Small Industries Development Organisation (SIDO) has been set up to promote and assist the development of small industries in urban and rural areas. For the general development of industries, parastatal organizations which are business arms of the Government have been set up to deal with specific sub-sectors.

Industrial distribution and decentralization are important elements of industrial strategy, in view of the poor infrastructural facilities available, particularly transport. In the United Republic of Tanzania industries have been classified into three categories: national industries serving the national needs and exports; district industries meeting the district/local needs; and village industries which produce mainly handicrafts. This classification is based mainly on the market served and on the level of technology needed.

The problems affecting industrial development could be grouped into those affecting existing industries and those affecting development and the implementation of new projects. They include the lack of adequate financial resources, of adequate infrastructure, of experienced and sufficient manpower, particularly middle-cadre technical staff, and of industrial support institutions, and ultimately the question of appropriate technology.

The country's third five-year plan, 1976-1981, is directed towards the development of basic industries in order to achieve structural change and provide a base for achieving self-reliance in industry.

The assistance given by UNIDO to the industrial sectors in the United Republic of Tanzania is highly appreciated and has made a positive contribution to the efforts to achieve self-reliance.

XIII. UPPER VOLTA

The basic objective of the industrial development policy in Upper Volta is to raise the standard of living and the per capita income of the country. Industrial development in the Upper Volta consists of patient efforts to master the local factors making for balanced development and to see that the indispensable links with economically advanced countries operate in a manner consistent with the priorities of an independent industrialization programme. To this end, the Government has defined objectives and the means of attaining them. Despite the constraints placed upon industrialization, the results already achieved are encouraging and the prospects for the future are hopeful.

The first stage of industrialization, which was concentrated on import substitution, soon reached its limits since consumer purchasing power had barely been developed owing to the stagnancy of agriculture, the main source of income for 90 per cent of the population. In addition, the rate of growth in the agricultural worker's productivity was lower than it was or could have been in industry.

This stage was, however, necessary since it stimulated the spirit of enterprise among many Upper Volta citizens. Labour is abundant in the country and the labour force is enthusiastic; in embarking on an industrial way of life, labour was eager to acquire even higher qualifications. As a result the objectives of industrialization became more precise. They may be summarised in terms of the utilization of local resources:

(a) Agricultural and pastoral resources. These must obtain substantial income. Thus, industry has the role of endowing agricultural and pastoral products with the maximum value added before exportation;

(b) Mineral resources. Much hope is placed on these resources, with a view to achieving a very rapid increase in industrial production, improving the balance of trade, and raising consumer purchasing power;

(c) Human resources. The diligence and high qualities of the Upper Volta worker, whether manual or intellectual, are well known in the West African subregion. Industry in Upper Volta wishes to exploit these virtues by promoting

industrial units that are highly labour-intensive. Although it is encouraging to note the spirit of enterprise motivating an increasing number of people, a great effort still has to be made in the field of vocational training;

(d) Import substitution industries. These industries continue to occupy an important position because they help to supply the local market with major articles of consumption, the demand for which justifies the establishment of viable industrial units. They also generate secondary effects stimulating other industrial activities. Emphasis is placed on industries producing capital goods, on the chemical industries and on industries producing energy.

Dependence on external financing is still very high. Foreign aid does not always, however, respond to the country's needs, in terms of structure or of volume. For this reason, steps are being taken to mobilize domestic savings for development: the Caisse nationale des dépôts et des investissements (CNDI) and the National Development Bank (BND) absorb foreign capital to make it available to the national economy.

A fairly liberal investment code facilitates the inauguration of new industrial enterprises through tax relief measures (in the developed countries, enterprises tend rather to be given financial and legal incentives to overcome their initial handicaps).

A special investment code, nicknamed the "little code", for the promotion of small and medium-sized local enterprises is under preparation and should permit this category of enterprises to assume their role rapidly. The Office de promotion de l'entreprise voltaïque (OPEV) assists small and medium-sized enterprises in particular.

So far as infrastructure is concerned, a new industrial zone is being constructed at Ouagadougou. Bobo-Dioulasso, the economic capital, already possesses a functional zone located next to the Abidjan-Niger railway.

Upper Volta is handicapped by its land-locked position, an expensive and insufficient supply of electricity, the absence of mineral resources, an inadequate transport system etc.

Although agriculture is the predominant sector in the economy, it cannot launch itself; industry can stimulate its development by providing it with equipment and machinery, fertilizers, insecticides etc. and primarily by purchasing raw materials from it. It follows that integrated agro-industries geared as far as possible to the processing of agricultural and livestock products are one of the most effective means of ensuring industrial and agricultural development.

Increased autonomy and greater co-operation with neighbouring countries in order to expand the market for products is one of the prerequisites for achieving industrialization targets. More intensive processing of domestic agricultural and mineral raw materials and further diversification of the industrial structure, among other means, through the development of so-called "industrialising" industries (such as mechanical engineering, particularly the manufacture of agricultural machinery) and industries for the production of intermediate goods (chemical industries, fertilizers) are also crucial for Upper Volta.

Annex I

AGENDA

Monday, 15 November 1976

08.30 - 09.30

Registration of participants

10.00 - 12.30

Opening addresses

Election of Chairman, Vice-Chairman and two Rapporteurs

Adoption of the agenda

14.30 - 17.30 Item 1

Special problems facing the LDCs in promoting industrial development: ways and means of overcoming various obstacles to their industrialization

Tuesday, 16 November 1976

09.00 - 12.30 Item 1

(continued)

14.30 - 17.30 Item 1

(continued)

Wednesday, 17 November 1976

09.00 - 12.30 Item 2

Formulation of concerted action and special measures to meet the needs of the LDCs for accelerating their industrialization

Item 2(a)

How these countries can be helped along the road to a new, more dynamic process of development by accelerating industrial development

Item 2(c)

How to make the international technical and financial assistance more relevant to the objectives of increased self-reliance and internal dynamic growth, ensuring a sufficient degree of self-dependence and capacity for self-sustaining growth and diversification

14.30 - 17.30 Item 2(a)

Item 2(c)

(continued)

Thursday, 18 November 1976

09.00 - 12.30 Item 2(b)

How to assist the LDCs in designing national policies and strategies and effective plans for utilizing more fully their domestic resources for self-sustaining growth and diversification

14.30 - 17.30 Item 2(b)

(continued)

Friday, 19 November 1976

09.00 - 12.30 Item 2(f)

Human resources for industrial development and especially the development of skills and institutions for the design and implementation of policies and programmes relating to the processing of agricultural raw materials, food production and other local processing industries more dependent on internal factor inputs

14.30 - 17.30 Item 2(e)

Development of programmes and new forms of assistance related to the basic needs of the LDC's coupled with their own efforts

Monday, 22 November 1976

09.00 - 12.30 Item 2(e)

(continued)

14.30 - 17.30 Item 3

Ways and means of mobilizing financial and other contributions from foreign public sources with preliminary consideration of specific projects for financing and follow-up action

Tuesday, 23 November 1976

09.00 - 12.30 Item 3

(continued)

14.30 - 17.30 Item 3

(continued)

Wednesday, 24 November 1976

09.00 - 12.30 Item 3

(continued)

14.30 - 17.30

Adoption of the general conclusions of the meeting
Concluding address

Annex II

SPECIAL PROBLEMS FACING LEAST DEVELOPED COUNTRIES IN PROMOTING INDUSTRIAL DEVELOPMENT; ACTIONS AND SPECIAL MEASURES REQUIRED TO MEET THE NEEDS FOR ACCELERATING THEIR INDUSTRIALIZATION a/

Introduction

There has been an increasing awareness on the part of the United Nations and the international community of the need for providing special assistance to the least developed countries (LDCs). The subject has been constantly under discussion since UNCTAD III and has been given formal expression in a series of other international meetings. The criteria for determining whether a country could be classified as least developed have evolved after a great deal of careful thought; the bases on which assistance should be provided have been worked out, and the peculiar difficulties of these countries have been analysed in some detail. The United Nations Conference on Trade and Development (UNCTAD) has taken a number of initiatives in this matter and has been the first to draw attention to the acute predicament of the LDCs. The Declaration and Programme of Action on the Establishment of a New International Economic Order, adopted by the General Assembly at its sixth special session (resolutions 3201 (S-VI) and 3202 (S-VI)), the Lima Declaration and Plan of Action on Industrial Development and Co-operation, and resolution TD/RES/98(IV) adopted at UNCTAD IV represent in many ways the culminating points of efforts to promote an awareness of the need of these countries for special assistance and of the deep concern over the problem in recent years. The economic situation of the LDCs, however, has not improved; it may, unfortunately, be true that, with a few exceptions, it has become worse. The following table illustrates the widening income gap in per capita GNP in constant 1972 United States dollars: b/

a/ Originally issued as UNIDO document ID/NO.234/2, 27 October 1976.

b/ "Review of progress in the implementation of special measures in favour of the least developed among the developing countries", report of UNCTAD secretariat (UNCTAD TD/B/AC.17/3, 10.6.75), p. 3.

	<u>Developed market economy countries</u>	<u>Centrally planned economies of Eastern Europe</u>	<u>All developing countries</u>	<u>Least developed countries</u>
GNP <u>per capita</u> in 1973	3,841	1,630	247	96
GNP <u>per capita</u> in 1980 (assuming continuance of 1970-1973 growth rate)	5,089	2,294	306	100

Nine of the LDCs showed negative rates of per capita growth during 1970-1973; the average came to less than 1 per cent^{c/} and is far from the average of 3.5 per cent visualized in the International Development Strategy. There has been a sharp decline in the rate of real GDP originating in manufacturing in the LDCs, from 12.3 per cent in 1960-1970 to 5.2 per cent in 1970-1973. It is, therefore, most important to make a multidisciplinary and concerted attempt to ensure the speedy industrial development of these countries.

There are many reasons for the economic backwardness of the LDCs and for the situation that has developed. An overwhelming number of these countries have been liberated recently from colonial rule, under which they supplied primary commodities, agricultural produce or minerals and imported manufactured and finished products. The capital bases are small and the articles these countries can export or the capital goods and raw materials they can import are extremely limited. Seventeen of them are handicapped by their land-locked position. Among the 41 countries listed as "most seriously affected" under the United Nations Emergency Operation, 19 are among the least developed. Problems

^{c/} Ibid., p. 4. In fact, the average percentage growth rates of the LDCs, compared with other developing countries, brings out the point in sharper outline:

	<u>All developing countries</u>	<u>All developing countries (excluding major petroleum exporters)</u>	<u>Least developed countries</u>
	(percentage)		
<u>Total GNP</u>			
1960-1970	5.2	5.1	3.4
1970-1973	5.7	5.3	3.2
1970-1980	6.0		
<u>Per capita GNP</u>			
1960-1970	2.6	2.5	0.8
1970-1973	3.1	2.7	0.6
1970-1980	3.5		

are caused by resource gaps, debt service liabilities and increasing unemployment or underemployment in most of these countries. There is a pressing need for regional dispersal, decentralized growth and balanced and harmonious development. Literacy rates are low and the educational system that has been inherited is a most ineffective vehicle for bringing about a major transformation and structural change; it does not impart vocational proficiency or the culture of work. It is no wonder, therefore, that lack of skilled manpower seems to be characteristic of every country in this category.

One of the most pressing needs of these countries is for the development of manpower from top to bottom with varying degrees of managerial, vocational and technical qualifications and competence for positions at different levels and grades. Above all, a fair number of the countries have yet to survey and identify their potential, and if this has been done, much leeway must be made up before it is fully exploited.

In the final analysis, each country charts its own course and works out its own programme of development. It is not advisable or practicable to suggest a uniform solution or pattern of development. First, while each country has low levels of literacy, a small share of manufacturing in GDP and a low per capita income, a great variety of conditions and systems prevail in these countries. The difference is not merely in terms of social and cultural patterns and political organization; for example, one country has nearly the highest population density in the world, and another has almost the lowest. There are countries recovering from a drought, some that have just emerged as separate political entities, and some that are trying to build anew on the ruins of a long-drawn-out war. Certain countries have a high degree of growth potential in terms of natural resources, and others are not so richly endowed. Thus the problems and preoccupations of Bangladesh are not the problems of Lesotho; and the major difficulties of the Lao People's Democratic Republic may not be of like concern for Chad or Somalia. Secondly, it is not for lack of models or prescriptions that the countries have not been able to make headway. A model that does not take into consideration the social and historical complexities, cultural patterns and political realities and that is an entity in itself, however, will not work. Only that particular system will work that is a local brew arising from the process of fermentation in a given society.

Formulation of broad framework and objectives

An encouraging aspect of the situation regarding the LDCs is that they seem to be determined to attain the goal of self-reliance and self-sustaining growth. A firm commitment to the ideal of self-reliance is one of the prerequisites of economic and industrial development. They have been attempting to utilize their natural resources and endowments and to reduce dependence on imports, by degrees and stages, of food, consumer articles, processed goods and manufactures. Most of these countries have introduced programmes of import substitution (although it would be desirable for them to have put greater emphasis on exports than they have). They have been restricting imports of consumer goods and luxury items. The attempts made in some countries to mobilise internal resources by taxation, reduction of expenditures and even salaries of employees, and to achieve greater fiscal discipline are measures of their increasing consciousness of developing that inner reserve of strength which bends a national situation in the direction the leadership desires. The path of development is not easy to pursue for countries that have begun so late and that have started out with such unparalleled handicaps. The objective cannot be achieved without a massive flow of financial and technical assistance which would be quick, effective, substantial in quantity and free from the encumbrance of bureaucratic delay. Instances are not lacking in which such assistance has been forthcoming in abundance. The point is whether such instances can be repeated with greater frequency and on a vaster scale.

It is essential for Governments to have a clear comprehension of the broad directions and objectives they wish to pursue. A positive feature is that the formulation of objectives and the perception of the malaise afflicting these countries have on the whole been sound. Priority areas seem to be agriculture, infrastructure and industrial development, in that order. Occasionally, infrastructure may have precedence over agriculture or minor variations may appear in a concept or in emphasis. Agriculture and rural communities, scattered habitations not yet brought together in a village, or even nomadic tribes seem to be predominant. Agriculture will continue to be pivotal for the development of industry in most LDCs, from the point of view of both backward and forward linkages. The national plans invariably emphasise the need for dispersal, decentralized growth, labour-intensive technologies, small-scale industries, village industries and handicrafts. The importance of basic and prime-mover industries is also recognised.

In many of the LDCs, however, there is little by way of a comprehensive strategy in actual practice, apart from an attempt to prepare a few feasibility studies. National plans have suffered from shortfalls, and policy goals have not been realized. The need is to introduce a package of measures since isolated attempts will not produce results. The spheres of activity of the different sectors - private, public, small-scale and village industries, or foreign investment - need to be clearly spelt out. A great many decisions relating to incentives need to be taken in pursuance of the direction a country's economic development is supposed to take. Economic surveys may be required and promising product lines need to be identified. There should be a programme to motivate suitable parties, whether private entrepreneurs or industrial co-operatives, to take up certain product lines. Focal points of growth may have to be identified and located and infrastructure provided for them. Linkages between the development of agriculture, fishery, livestock or forestry and industrial growth need to be established. Training should be organized and information systems built up. Marketing studies should be carried out. Every element of the package should be synchronized and fit into a pattern. Often, a whole programme may prove to be futile if one of the inputs is missing.

In other words, it is not enough to be aware of the broad objectives. Certain policy decisions and executive measures need to be taken on a co-ordinated basis in order to orient the country towards those objectives.

The question then arises why the countries concerned have not tried such a co-ordinated attempt. There is no single answer. An important reason is the lack of expertise to take an over-all view, to build up systems, to give suggestions regarding policy formulation, to initiate feasibility studies, to suggest a proper pattern of institutional and organization support and to provide a wide and comprehensive range of advisory assistance. A strong nucleus of multi-disciplinary expertise is needed at the centre of planning, in the ministry and in the executive agency of the ministry, to assist in inaugurating a number of basic and fundamental initiatives needed to be taken by the Government. Lack of an assured flow of financial and technical assistance also stifles government initiatives. Lack of co-ordination between the different agencies of the Government is also a hindrance. Sometimes Governments hesitate to provide one input without a reasonable hope that other inputs will be forthcoming.

Some of the essential components of an integrated approach to industrial development and suggestions for specific courses of action are dealt with in the following sections.

Role of foreign investment and of
national private investment

An analysis of the policies of the LDCs reveals a whole spectrum of approaches. Some seem to welcome private and foreign investment in practically every field of activity; others do not allow such investment at all, and there are those that have left the matter vague. The policy of each country may have a certain inner validity. However, it is most important to specify areas in which a foreign investor better stay away, so that indigenous capacities are not pre-empted. It may even be necessary to debar an existing multinational company of a foreign enterprise from diversifying. For instance, the establishment of a multimillion dollar joinery may shut out hundreds of little joineries about to burgeon in a given environment. It may be best for the foreign investor to concentrate on other areas more befitting his financial and technical capability such as heavy forging.

On the other hand, it would be well to consider both foreign investment and private national investment as important factors and options in the growth and development of industry, in view of the fact that the major constraints in the way of industrialization of the LDCs are lack of finance, resource gaps and the shortage of management ability, skilled manpower and technological know-how. It would be best to attract foreign investment where the capital involved cannot be mobilized internally, and where it is not possible to secure technical know-how and management capability. In this context it would be useful to specify clearly the areas in which foreign investment would be welcome. It may then be worthwhile to create conditions that would be not only conducive but even attractive to such investment. At the same time, there is need to ensure that the terms of the foreign investor are not exploitative, that there is provision for the training of local staff, for the progressive replacement of expatriates by nationals who would eventually take over the company.

A clear-cut definition of the roles of the different sectors is equally valid for the national private sector. The part assigned to it will differ according to the political and ideological persuasion of the country concerned and that country's perception of the relative advantages of the sectors. The private sector in turn should have a clear notion of where it stands in the national scheme and the areas in which it may be active.

Role of small-scale industries and of
artisan and handicraft units

At present in the LDCs, there are a few large-scale industries and a larger base of artisan units. Small-scale factories are yet to emerge. There is a need to strengthen the artisan units and to help to establish small factories. The skills of the traditional artisan units need to be upgraded so that some may grow into small-scale factories. The pattern of industrialization has to be an integrated fabric in which units of different types and scales play a part. Thus, while it is most important to develop basic and large-scale industries, the promotion and development of small-scale units should not be neglected.

It is necessary to define the small-scale sector for the reason that in the absence of a definition there will be practical difficulties in giving this sector the special assistance it needs. The term small-scale industry generally refers to small factories as distinguished from non-factory industry, which includes both traditional and modern artisan units. Factory industry can generally be distinguished from non-factory industry by the degree of specialization of labour. One uses specialized labour, the other uses less productive artisan-apprentice labour. It is not possible, however, to suggest a uniform definition for all countries because circumstances differ. While in developed countries the tendency is to go by a ceiling represented by the number of employees, developing countries usually go by the amount invested in fixed capital. It would be more appropriate for the LDCs to go by a ceiling of investment in fixed capital than by the number of workers employed, because of the general shortage of capital and surplus of labour. All categories of units, whether factory or non-factory, within this limit should be entitled to a certain measure of special assistance. It may even be necessary to provide a special package of measures for smaller operations and artisan and handicraft units. It may also be advantageous in the case of the LDCs to include as small-scale industry different kinds of service industries and repair and maintenance operations. The fixed capital limit for small-scale industry should not be too low and should not discourage small-scale units from equipping themselves with machinery and tools.

Special measures, however, are not needed simply on the ground that small-scale industries and artisan or handicraft workshops are necessary for the overall industrial development of a country. While all industries irrespective of scale suffer from lack of finance and technological know-how, for small operations these difficulties are far more acute. The capital structure of these

units is weak and the need for technical counselling is far more pressing. Moreover, there are certain additional handicaps. A large industry can make its own arrangements for some of the basic infrastructure, such as electric power, while the small investor must depend on the existing infrastructure. It is far easier for larger industries to make licensing arrangements with foreign firms for providing technical assistance or capital. The person running a small industry (unless it happens to be a co-operative) tends to have sole responsibility for production, management, marketing and finance; as he is his own production, marketing and management man, he needs special support.

An important need in this sphere of activity is for a powerful and effective extension service. An extension service can assess the prospects of industries, select a location, estimate capital requirements and potential markets. It can advise on the choice of raw materials, machinery and tools and on their most productive utilization. It can also advise on management development, which includes finance, production planning, marketing etc. Industrial extension may include individual counselling, through visits to factories, providing information and organizing regular courses of training. The need is for a decentralized network of extension services.

Small units often have difficulties in obtaining credit and must depend on money-lenders. There is a tendency for development banks to reject the applications of some small units as not well prepared. The small unit also needs guidance on how to make the best use of credit. An important need is to integrate credit with technical assistance. In other words, there is an imperative need for the extension agency to be in direct touch with the development bank or commercial banks, or for what is called supervised credit. In some instances, it is necessary for the Government itself to supervise a programme of credit assistance by giving budgetary support. It may be necessary for the extension staff itself to give rapid financial assistance to small-scale units with small operations, without having to go through a great deal of red tape.

An important part of the strategy would be to awaken the people in all parts of the country to newer possibilities in the field of industry. For this it may be necessary to produce a large number of project profiles which would show how this would be possible. It is important also to demonstrate how initial margins of investment can be reduced by various forms of government assistance, such as making available factory sheds and machinery on a hire-purchase basis.

It is also crucial to identify product lines which would best be set up in the small-scale sector. It may happen often that a single large-scale enterprise pre-empt capacities for manufacturing items that could be produced by small-scale units. Thus, the chances of a group of smaller and much more labour-intensive units emerging in different parts of the country may be stifled. This is a point to be examined constantly at the stage of licensing or approval; it can be done only if the country has an approximate idea of what units can be promoted in the small-scale sector. Depending on the existing and potential capability of the small-scale sector, a few items may even be reserved for manufacture exclusively in the small-scale sector.

It is important to ensure that the relationship between large-scale and small-scale units should be complementary. It has been observed in both developed and developing countries that often the larger firm finds that its own interest is not to make everything under one roof but to farm out parts and components to subcontracting units. It is economical for the larger firm to do this and allows it time and energy to devote to bigger and more urgent problems. The smaller unit develops an expertise of its own, gives greater attention to the item, and produces it more cheaply owing to lower overheads. The subcontracting firm has assurance of part of the market and can in many instances have the benefit of counselling and testing from the parent firm. Another important advantage accruing from the development of ancillary industries is in development. Many large undertakings tend to become islands of industrial complexes surrounded by a sea of stagnation. The development of ancillary industries alleviates this tendency.

Rural industries projects

The links of the small-scale industry sector with the rural economy need to be strengthened. It would be worthwhile to take up intensive projects in the rural areas, first on a pilot basis and subsequently on a wider scale. The initiative and effort of the local communities would have to be stimulated and mobilized. The intention of these projects should be to attain an even spread of industries throughout the countryside. The projects should take into account two important factors: (a) local resources, both human and material and (b) local needs. "Local" does not mean a single village; it may mean a village, a group of villages or a district, depending on the nature of the industry and the technology used. The aim should be to convert the present purely agricultural communities into agro-industrial communities. It is most important to choose the location of such projects

carefully. Generally, a good location will be where agricultural conditions are favourable and a considerable effort in the field of agriculture is being organized. A favourable feature would be the availability of power. It would also be a good idea if some projects were located in areas where large industrial projects are being located. These projects should be in addition to any industrial estates that may be set up. The main objective is to bring about a diversified and decentralized growth of industry with significant stress on the growth of non-farm employment and production based on local resources and needs. This would be essentially an extension programme with different components made available in the form of credit, technical and management assistance, factory sheds and training. In areas where potential for the modern small-scale industry does not exist, stress should be laid on the improvement of traditional village industries and on training the local artisans and craftsmen.

Infrastructure for industrial development

Physical infrastructure

One of the major reasons for the continued backwardness of certain areas in a country is lack of infrastructure; a proven way of igniting the process of industrialization is to provide the basic facilities. Industry will grow where these facilities have grown; and it will not grow where nothing else grows. The directions which any plan for developing infrastructure take will necessarily have to correspond with the general pattern of development the country desires. For industrial development it seems best to identify potential centres of growth on the basis of techno-economic and social criteria. Some of these centres have already a basic infrastructure available. The best course of action may therefore be to concentrate on such centres. In the second phase it may be important to concentrate on areas that have promise from the point of view of resource endowments. At some of these centres rural industries projects may be initiated. At others there may be general industrial complexes providing industrial estates and other facilities. Some of these focal points will become models for surrounding areas and can generate a great deal of economic activity. Centres that are taken up in the second phase may require an immense amount of physical infrastructure support, and thus require a great deal of assistance from external sources.

There are some places where an outstanding resource is available - mining for instance. The project, however, could be worthwhile only if there were

among others, a connecting road and electricity. Provision of physical infrastructure in such cases would be worthwhile; and it is no use computing its worthiness only on the basis of what is available at site in disregard of the entire economy and society. The point between the mine and the town with which it is connected will also develop as a result of infrastructure support. Since the intention is to help the LDCs and to provide special assistance, there is an overriding necessity to relax the normal standards of evaluating the viability of such projects. It is recommended that international agencies should provide these additional inputs through assistance in order to make the proposition feasible. There have been instances in which the LDCs have received outstanding support from international agencies and organizations. (In one case, for example, EEC has given a sum of £45 million as a grant for infrastructure and some other projects.) Instances of this kind should be multiplied. The requirements of each country need to be looked into in detail and a serious and concerted attempt should be made to provide infrastructure in a substantial measure.

Some of the LDCs have tremendous hydroelectric potential. In fact, one has potential equivalent to the installed capacity of Canada, Mexico and the United States. While it may be a long time before it is realized, as much use should be made of this resource as quickly as possible. As it happens, some of these countries are land-locked and by supplying power to the transit country, a position of greater interdependence can ensue. Moreover, the supply of power and the consequent electrification of the countryside can act as powerful stimulants of economic and industrial activity.

The conclusions are:

(a) That the requirements of each country should be studied as a whole and external assistance provided on a massive scale. Special assistance will be needed at focal points of potential growth, which should be identified, and for connecting them with markets and outlets;

(b) The usual rules for determining the viability of mining and manufacturing projects should be made more flexible, taking into account infrastructure as a necessary input;

(c) Governments may want to study the subject in a comprehensive manner, prepare master plans for infrastructure support; expertise should be provided by international agencies in identifying infrastructure needs;

(d) At the regional level, there is need for co-ordinating programmes of infrastructure development of contiguous territories.

Organisational and institutional support

A crucial matter in the implementation of a programme of industrial development is that the ministry executing it should be effective and well-organized.

In a large number of LDCs, this ministry lacks qualified staff with a technoeconomic background. There are some countries where just two secretariat officials look after the entire programme. Another disquieting feature of the present situation is that in many of the LDCs the ministry has no executive arm. This would be bad enough anywhere in the world, but in the case of countries placing the greatest stress on decentralized growth, it is impossible to think of such a growth without a decentralized network for its motivation. The consequence of such a lack is that the metropolis tends to become the Mecca or Jerusalem of all the people, when the reverse ought to be true for the execution of the programme. In a few countries a minimum of qualified staff at regional or district levels has been appointed. The attempt is being made to provide technical and management counselling at the doorstep. This kind of technical or management counselling to a prospective entrepreneur cannot but have motivational aspects; for it is not a passive kind of arrangement for providing advice only in response to requests. In any dynamic programme, counselling and provision of guidance and supervision cannot be dissociated from direct initiatives. In many of the countries a reasonable amount of expertise is available, but only at headquarters; it tends to be concentrated around a few large projects and it also appears as if motivation or evoking a positive response to a good idea is not its function.

Most LDCs need a great deal of organizational support. They need experts to guide them in policy formulation, in building up information systems, in carrying out economic surveys and studies of industrial prospects for products, in preparing project profiles and carrying out pre-feasibility and feasibility studies, and in advising Governments about the types of machinery available the world over and the suitability of parties. Many LDCs need this assistance for long periods, five years or more with some assurance of continuity. Moreover, there is need for an executive arm of the ministry concerned with development. Most of the LDCs need to decentralize. Each region or division of the country or important industrial complex needs a certain complement of staff. A certain amount of extension service is needed at divisional industrial service institutes, which should be set up. These institutes should offer expertise in management and technical counselling. The institutes should take initiative in motivation. Similarly, extension staff would be required in the rural industries projects.

Industrial extension support services. Most LDCs need regular long-term projects for industrial extension support services, which would function both in the ministry and in the field and which would have the following objectives:

- (a) To evolve a policy and strategy for the development of industries in urban and rural areas;
- (b) To organize a programme of industrial support services that would include building information systems, project identification and feasibility studies;
- (c) To help organize a technical and management extension service;
- (d) To establish an effective link between the extension service and the banking institutions of the country;
- (e) To help in operating industrial service centres, common facility services and mechanical workshops in industrial estates;
- (f) To organize and operate a network of rural industrial services through rural industries projects which may include service workshops;
- (g) To train national officials who may be able to carry on a support services programme.

This kind of assistance has been given by UNIDO to some developing countries, including LDCs, and has been found useful. It is important to extend it to all LDCs and to ensure that its continuity shall not be broken or disturbed.

Parastatal institutions. The extent to which the LDCs have been able to supplement their organizational structure with certain institutions differs from country to country. There are a few outstanding examples. Most countries will be greatly helped if they are able to set up parastatal institutions such as industrial development corporations for carrying out a number of activities. The scale on which the programme needs to be conceived makes it compelling to create a parastatal institution that would be relieved of the iron-clad rules of a government set-up. An effective organization is needed that would have all the strength, capability and motivation of a commercial organization combined with a drive for promotion and development; its spheres of activity could be:

- Construction of industrial estates
- Procurement and supply of raw materials and ancillary items to industry
- Procurement and supply of machinery on a hire-purchase basis
- Marketing of industrial products
- Direct equity participation in ventures

The establishment of such corporations may need substantial external assistance, including grants and credit lines.

A closer association should be established between the extension network and the development bank and even commercial banks. Sometimes some really good projects tend to be rejected. The development bank may consider the advisability of setting up advisory committees, consisting of industrial engineers and economists of the extension wing of the ministry of industry. The bank may also want to have a frequent dialogue with industry.

Hire-purchase operations for machinery and equipment. Substantial reductions in the initial margin money can be effected by introducing a scheme of hire-purchase for machinery and equipment, especially in the case of small and medium-sized industries. The scheme would be to supply machinery to existing or potential investors at a small down payment of say 5 per cent of its value. The remaining sum would be recovered over a period of seven years at a concessionary rate of interest. This would be a case of supervised credit and the extension agency should be fully integrated and associated with the programme. It should scrutinize applications, help the investor in filling out the forms and push them through the agency deputized by the country to procure and supply such machinery. It should keep in constant touch with the party until the instalments are repaid. This experiment has been highly successful in some developing countries. It is satisfying to find that at least one LDC has introduced the scheme and that a change has been brought about in the investment climate in consequence.

Credit-guarantee scheme. An important step that could instil a certain amount of courage and dynamism in the lending policies of commercial banks would be a credit-guarantee scheme which has been adopted by some developing countries with significant success. The best course of action would be for the central bank of the country to operate the scheme on behalf of the Government. In other words, the central bank should become a guarantor. Commercial banks should participate and should pay the central bank 1/10th of 1 per cent per annum on the amount sanctioned or outstanding. The amount so deposited could go into a reserve fund with the central bank, thus underwriting about 75 per cent of the risk.

Quality control and standardization. These will have to play an increasing role as industry develops in the LDCs. The need for quality control and standardization is already felt especially in the area of food testing. External assistance in this sphere is urgently needed.

Extension training institutes. It is also most important to **set up** extension training institutes for groups of countries on a regional basis. These institutes should train workers in the principles of extension, covering a number of areas such as scientific demand analysis, principles of productivity, preparation of feasibility reports. Some actual and potential entrepreneurs or members of industrial co-operatives should also take these courses. A potential investor may, for instance, while under training want to make his own feasibility study; he should be enabled to do so. Thus, the extension training institute could be actively involved in the programme of entrepreneurial development for both private entrepreneurs and members of industrial co-operatives.

Other regional institutions could concentrate on research for the adaptation of technology evolved in other countries, especially developing countries. There could also be regional institutes for tool design and manufacture.

Other areas of external assistance

Preparation and follow-up of feasibility studies

In several countries a substantial amount of work has been done on the preparation and follow-up of feasibility studies, and a great number of feasibility studies have been conducted. It is, however, observed that a good many of these studies tend to remain merely studies without leading to actual projects, for various reasons; one is that many feasibility studies have been done without the benefit of previous industrial surveys or a national inventory of potential resources. Another stumbling block is the fact that information systems and statistics are far from perfect. The more direct cause of lack of progress is that local expertise for carrying out detailed feasibility studies is lacking. A good deal of ground can be prepared by pre-feasibility studies carried out by the industrial support services projects recommended above. The fact remains, however, that no matter how determined a country may be, and irrespective of the ground prepared by indigenous effort backed by expertise, substantial direct financial assistance is required. In the course of visits and studies, excellent examples of such assistance have come to light in some of the LDCs where a substantial amount of money had been placed at the disposal of the development banks on a grant basis in order to enable them to prepare a shelf of such studies. Such assistance should be in countries where it has actually been given and multiplied to cover all the LDCs.

The need is imperative to establish a link between the preparation of feasibility studies and their actual implementation by combining technical with financial assistance. Therefore, closer co-operation among technical assistance and financial institutions from the very beginning is strongly recommended. It might also be a good idea for UNIDO to build up an adequate amount of documentation on the firms and partners interested in specific items for different projects in the LDCs. UNIDO might also supply the LDCs with standardized technical agreements for different kinds of projects and render the necessary advisory services. There is also ample scope in this area for technical co-operation among developing countries. Some of these countries have proven their capabilities in certain kinds of industries. These countries may have highly developed organizations which can carry out pre-feasibility and feasibility studies and can even help in securing turnkey projects and joint ventures.

Assistance to existing industries

In some countries the void created by the withdrawal of foreigners has resulted in serious dislocation, and it would appear that any short-term programme would have to be directed towards rehabilitation and consolidation of the existing structure rather than towards the stimulation of new enterprises. The problem can only be solved by a specially tailored programme of management and technical assistance at different operating levels and in some cases by direct appointment of internationally recruited managers and technical personnel for some years, together with appropriate counterparts. An attempt has been made by UNIDO in such cases to include such measures in country programmes.

It has been found frequently that capacities in many public sector and private units are underutilized, possibly owing to a large number of circumstances such as lack of appropriate manpower or a faulty project report to begin with, or lack of demand for the time being. The matter needs to be studied and assistance should be given. UNIDO has already requested the LDCs to inform it if they need assistance in this regard. Some LDCs have already indicated their interest in such help.

Turnkey projects

Turnkey projects can be an important source of technology transfer. The turnkey project can be a package consisting of:

Selection of established manufacturer whose know-how and technology is suitable to the country

Preparation of a feasibility report

Supply of know-how and other details including drawings

Training of technicians and workers

Installation of machinery

Solving for a given period any bottle-necks arising during production

Such turnkey projects can be quite suitable in the case of small-scale operations also. It would be useful if UNIDO were to develop a certain amount of documentation about firms interested in such operations throughout the world with special reference to developing countries.

Export assistance

A most important sphere in which the LDCs have yet to make major progress is export promotion. While there is rightly a pronounced accent on import substitution in the plans and programmes of all these countries, it is obvious that it will not be possible for them to make the required headway without the effective promotion of exports. The countries need resources and foreign exchange for capital investment in any industry. Moreover, it is important for ensuring the quality and competitiveness of products to enter the export market. An interesting and useful way of assisting the LDCs would be integrated assistance projects which offer a package of trade promotion assistance in response to a number of related needs. Some of these programmes are already in operation in several LDCs, with UNCTAD and ITC assistance. It would be useful if these efforts should lead to multidisciplinary assistance projects with the increasing participation of UNIDO and other United Nations agencies.

Manpower development

A most pressing need of all LDCs is for a strong and effective programme of manpower development. There is no point in finding patchwork solutions to this problem which will have to be attacked on a fundamental basis. The LDCs by definition have extremely low literacy rates. A massive programme of educational development and reconstruction is crucial. Equally important is the need for introducing elements of vocational and technical training and the culture of work into the educational system. Secondly, a programme of both management and technical training is needed that would be designed for industry

and would harmonize with the over-all objectives of national development plans. Perhaps it would be a good idea to field special UNESCO/UNIDO/ILO missions to work out the requirements of training in the LDCs. In many LDCs the first step would be to survey the present and future needs and to work out a plan of assistance. ILO, which is playing an important role in this sphere, may have to give emphasis to LDCs in its programmes.

UNIDO has a number of well-organized training programmes, but the needs of the LDCs are special and go beyond what these offer. What works well for Egypt or Mexico may not suit these countries. The organization of mobile courses in the countries themselves could cover certain areas such as management accounting. Fellowships and study tours in developing countries that are close to the LDCs would also be very useful.

It would be an excellent idea if centres were set up with external assistance for evolving prototypes of simple machinery which could be fabricated in the LDCs, such as agricultural implements, hullers, power tillers or threshers. Simple machinery required for the leather industry is another example. An attempt should be made to set up such centres, at least on a regional basis, if it is not possible to establish them in each country.

Prime-mover industries

Recently, ESCAP has evolved the concept of prime-mover industries for land-locked countries. The objective is to develop a central innovative activity with possibilities of rapid development. The approach is to identify an industry with rich local endowment that would provide a dynamic and cumulative impetus for the diversified development of the national economy of land-locked countries, with the help of donor countries. It could be a dairy industry, timber, or sugar cane with its possibilities for bagasse, molasses and alcohol production. "Kishmish" or dried grapes could also be considered. The technology is simple. It is agro-based. It has export and employment prospects. Its development and promotion would not require a complicated programme of development of skills. It is proposed to launch a programme to examine the various projects and to identify the industry that could be a prime-mover industry for each country. Field missions would be sent to three land-locked countries which are also least developed to determine the availability of such infrastructural, organizational and managerial skill, and

marketing and other inputs that would strengthen the proposed prime-mover industry and ensure its success. It is intended to prepare a model to serve as a basis for the development of the prime-mover industry and to extend it to other land-locked countries.

Technical co-operation among developing countries

The importance of technical co-operation among developing countries has been emphasized and there can be no question that this could be an important input in any programme of industrial development. The possibility of promoting a consortium of some of the developing countries that have already made considerable progress in developing indigenous capability with the specific object of assisting LDCs seems to be worth exploring. Some of the developing countries have already expressed willingness to help the LDCs with technical assistance. The possibilities of this kind of co-operation are endless provided financial assistance from international and bilateral sources is forthcoming. If the consortium could help the LDCs with the fruits of technological research and with pilot demonstration plants, the assistance rendered would be invaluable. These countries can also help the LDCs in locating suitable parties for setting up turnkey projects. In fact, in some cases, some developing countries may be able to help the LDCs in setting up their own plants based on their experience. Some of their consultancy organizations might carry out pre-feasibility and feasibility studies for the LDCs at no cost provided their cost of international travel is met by international agencies. An important area in which such assistance could be particularly useful is study tours and training. Some developing countries have excellent institutes of extension training at which nominees of the LDCs have received training for a year or more to advantage. Other kinds of training could also be imparted and special courses specifically designed for the LDCs could be arranged. Apart from awakening the LDCs to exciting possibilities and unsuspected avenues, the consortium would help greatly to promote a feeling of solidarity and fellow-feeling among developing countries.

Annex III

FORMULATION OF POLICY AND SPECIAL MEASURES IN FAVOUR OF THE
LEAST DEVELOPED, LAND-LOCKED AND ISLAND
DEVELOPING COUNTRIES ^{a/}

INTRODUCTION

To achieve the maximum possible increase in the share of the developing countries in world production (the goal is at least 25 per cent by the year 2000), UNIDO will prepare a programme of action for the effective execution of the projects and measures reflected in the Lima Declaration and Plan of Action on Industrial Development and Co-operation.

There is now world-wide recognition that the least developed, land-locked and island developing countries present problems that require special measures if they are to attain an acceptable level of economic development. The General Assembly in its resolutions 3201 (S-VI) and 3202 (S-VI) on the Declaration and Programme of Action on the Establishment of a New International Economic Order and in its endorsement of the Lima Declaration and Plan of Action on Industrial Development and Co-operation has emphasized that industrialization in these countries must take place at a more rapid pace than in the average developing country and has recommended that various countries and international organizations undertake concerted action and special measures of assistance to launch innovative projects and to lay a sound basis for the promotion of the more rapid industrialization of these countries.

The special measures recommended in the Lima Declaration and Plan of Action on Industrial Development are:

(a) Specific, urgent measures to establish the necessary conditions for industrialization: infrastructure, inventories of natural resources, and the technical and financial assistance required for the exploitation of these resources;

(b) Establishment and financing of complete industrial estates and pilot plants based as much as possible on the use of available local resources;

(c) Creation of integrated production units such as plants for agricultural machinery, appropriate engineering industries, and repair and maintenance services;

(d) Implementation of an appropriate agrarian policy as a necessary basis for the promotion of integrated rural development schemes that would involve the establishment of small-scale production units to meet both the needs of internal markets and export requirements;

(e) Development of crafts and cottage industries including artistic crafts;

^{a/} Originally issued as UNIDO/OED. 17/Rev.1.

- (f) Assistance for systematic studies of industrialization potential;
- (g) Speedy examination and establishment of infrastructures permitting the harnessing and full utilization of water resources and the establishment of agro-industries, with special emphasis on the countries affected by drought;
- (h) Preferential treatment within the context of international agreements for industrial products and processed commodities from these countries, as well as setting up of joint enterprises under regional co-operation;
- (i) Special aid and assistance to these countries in the establishment and development of adequate means of transport and communications;
- (j) Urgent measures to increase the import and export capabilities of the least developed countries and to help offset the disadvantages of the adverse geographical situation of the land-locked countries, particularly with regard to their additional transportation and transit costs;
- (k) Priority assistance from UNIDO and other international organizations in all fields; additional financial and technical assistance with exemption from counterpart requirements, where appropriate, through bilateral and multi-lateral channels, to accelerate industrialization in conformity with the national policies and development plans of these countries.

I. PROPOSED POLICIES AND GUIDELINES FOR UNIDO ACTIVITIES IN THIS AREA

The role of industry as a dynamic instrument essential to the rapid economic and social development of the developing countries, in particular of the least developed countries, is widely recognized. The creation, development and diversification of industrial production facilities in order to expand both internal and external markets is the only way of ensuring equitable participation by the least developed countries in world production and in the exchange of goods and services, as required by the establishment of a new international economic order.

The activities of UNIDO in relation to any least developed country should therefore have the aim of promoting an integrated industrialization process, based on the country's potential and reflecting the wishes, policies, plans and priorities of its Government, with the object of achieving the highest degree of interaction between industry and the other sectors of the economy. Specific recommendations for such activities are as follows:

(a) Particular attention should be given to the establishment of basic industries, such as steel, electrical, metallurgical, mechanical engineering, chemical and petrochemical industries, which are the indispensable base for any industrialization process;

(b) Emphasis and priority should be given to those projects and programmes that would create means of production that provide linkages with and basic inputs to other developing industries and sectors of the economy. This policy would be applied as far as possible in the selection of projects designed for the least developed countries in accordance with their strategies of development. Through application of such a policy, for example, the establishment of a foundry or a factory for agricultural machinery would supply the means for better utilization of land and for increasing its productivity. This in turn would assist in developing the agricultural sector and pave the way for the introduction of agro-industries (processing, preparation and packaging of food and feed, for example). This in turn would influence another sector and create more industry, e.g., the production of animal feed would lead to increased animal production and the development of meat-processing industry, leather industry etc.;

(c) Priority should be given to the establishment of industrial infrastructure projects having a multiplier effect; e.g., the establishment of a building-materials factory would provide a base for the construction of schools, training centres, factories, roads, wooden bridges and irrigation facilities, leading to the development of available natural resources such as wood, gypsum etc.;

(d) There should be a sectoral approach, i.e. the strengthening and encouragement of existing industries with the potential to grow into an industrial sector. For example, the strengthening and establishment of a textile sector, besides increasing the quantity and improving the quality of production through provision of industrial services and facilities, would lead to the creation of other subsidiary industries such as dyeing, the manufacture of simple equipment, and repair and maintenance facilities, which would benefit the sector as a whole and induce the creation of sectoral training centres etc. In accordance with government policy in the least developed countries, UNIDO will pay special attention to one industrial sector in each country, taking into account all consultations, studies and technical assistance required to cover all aspects of its development. This would provide the means for quick returns to help finance and strengthen other sectors. It would utilize to the full the previous experience gained within each country;

(e) The programmes and projects for technical assistance proposed by UNIDO should have as a goal the full utilization of available resources with a view to developing basic industries;

(f) Assistance should be offered for the development of rural industries based on available natural resources and raw materials. Proposals for industrial projects would take into consideration environmental and social aspects; UNIDO should also co-operate, from the early stages of project preparation and implementation, with those agencies concerned with these aspects;

(g) Programmes and projects should be devised to solve the particular problems of individual industries with a view to overcoming the obstacles facing these countries;

(h) In addition to the normal training programmes, arrangements should be made to train instructors, with a view to encouraging a multiplier effect. Experience shows that after only a few years, counterparts leave the jobs for which they have been trained, thus interrupting the work of the project. By providing facilities for training instructors, a continuous flow of trained nationals would be possible;

(i) In its activities UNIDO should take full account of the efforts of other United Nations agencies and international organizations and co-operate closely with them to accelerate industrialization in the least developed countries. To this end, it is necessary to establish a network of semi-independent international institutes for research and development in each specific industry. Such institutes would be attached to successful industrial centres located in the least developed countries and their work would be focussed on the basic problems of recording, analysing and developing technologies, including the basic techniques related to a particular industrial sector. The institutes would cover the industries immediately important to the least developed countries and relevant to their patterns of consumption and activity;

(j) Co-operation should be promoted among developing countries by encouraging activities in the following areas: joint ventures, multinational co-operation, exchange of experts, utilization of available training facilities etc.;

(k) UNIDO, in close co-operation with other agencies, should participate and assist in organizing consultations with the international community concerned with industrial development, with a view to building indigenously owned industries based on appropriate technologies.

II. SPECIAL MEASURES FOR THE LEAST DEVELOPED COUNTRIES

A. Consultative and administrative measures

1. Identification of requirements and bottle-necks in order to establish the type and magnitude of the technical assistance needed to assist the least developed countries in overcoming their particular problems and to achieve the objectives of the United Nations International Development Strategy. UNIDO in co-operation with other agencies should field missions to study, inter-alia:

(a) The required measures for removing any bottle-necks and the identification of the particular needs for assistance in the selection and preparation of appropriate financial and technical assistance projects;

(b) Adaptation of assistance to the special circumstances of the least developed countries. The critical impediments to development should be identified, and all available assistance resources should be concentrated on removing those impediments. These missions should ensure that the dispensation of assistance shall be flexible and efficient;

(c) The extent of technical and financial assistance provided, the growth of such assistance for industry, its effectiveness and the problems or obstacles incurred;

(d) The introduction of further measures for the effective utilization of technical assistance in order to develop the absorptive capacity of the economy;

(e) Where appropriate, examining the design of assistance programmes of an executive or operational nature intended to strengthen governmental and administrative machinery at the different levels concerned with the manufacturing sector.

2. Initiation and fielding of missions from the developed and some of the developing countries to the least developed countries for consultations and exchange of views, in order to increase co-operation and initiate valuable on-the-spot agreements for increased assistance.

3. Meetings at a policy-making level in the least developed countries in order to discuss policies and special measures proposed by UNIDO for the benefit of those countries and to identify further needs for assistance.

4. Follow-up action on experts' recommendations contained in mission reports. The joint industry divisions in the regional commissions, the senior industrial development field advisers (SIDFAs) and the experts assigned in the least developed countries should make concerted efforts to follow up previous recommendations to ascertain whether the possibility exists of assisting Governments in their implementation by utilizing technical assistance available within UNIDO or which UNIDO could arrange for their benefit.

5. The formation, for each industrial sector, of a group of experts from UNIDO headquarters and the joint industry divisions in the regional commissions. The groups would visit the least developed countries and give on-the-spot advice and assistance in overcoming bottle-necks, obtaining full utilization of existing production facilities and capacities, strengthening projects and identifying needs. They would also propose appropriate technical assistance required.

6. At the request of the Governments concerned, identification and encouragement of projects for joint industrial ventures through an exchange of views with authorities in the least developed, developing and developed countries.

7. Development of a programme of technical assistance with the aim of assisting these countries in strengthening their existing industrial institutions and plants. Such a programme would help achieve full utilization of production capacities in operational factories and the rehabilitation of existing idle equipment, as well as offer assistance in the development of repair and maintenance facilities.

8. Formulation and implementation of special programmes of assistance related to the examination of patent rights, royalties, contracts etc. involving foreign investment.

B. Planning and programming measures

1. Selection of a group of least developed countries for a particularly intensive and, as far as possible, specialized approach to assist in formulating the programmes and to propose the kinds of programme implementation that would be best suited to their particular problems.

2. Encouragement and provision of technical assistance to the least developed countries in the planning of their industrial sectors. In this respect, a team of industrial planners may be placed on call for immediate assistance.

3. Inclusion of more activities and projects for the least developed countries in the joint UNIDO country centres and co-operative programmes.

4. Inclusion of special projects to meet the needs of the least developed countries in the annual, biennial and long-term programmes and in work plans of the joint industry divisions in the regional commissions.

5. Preparation of a programme to assist in the establishment of small and medium-sized factories, workshops, industrial estates and multipurpose research institutes to investigate utilization of local natural resources and advise local communities on the establishment of industrial co-operatives. Such plants would be donated to the least developed countries, and the counterparts required for their operation would be trained by the donor countries and/or UNIDO. Suitable pilot plants would be envisaged for location in least developed countries that are interested.

6. Planning of the programme for co-operation among developing countries, taking into consideration the priority needs of the least developed countries.

7. Assistance in solving the biggest problem of the largest proportion of the population of the least developed countries: inadequate water supplies. Solution of the problem requires co-operation with other United Nations organizations. UNIDO should consider contributing to the promotion and development of suitable pumps, windmills and manual pumps for irrigation and consultation, and co-operation with other agencies in the preparation and implementation of joint projects in this area should be organized.

8. An industrial survey of existing industries; the possibilities for full utilization of excess capacities, by-products and waste material need to be identified.

9. A survey to identify and appraise export industries and production capacities suited to redeployment or shifting from selected developed countries to the least developed, land-locked and island developing countries.

C. Financial measures

1. Assistance in the expansion of the flow of financial and technical resources to the least developed countries, through meetings and negotiations with technical assistance institutions; exploration of new sources of finance ways to increase the flow from existing ones.

2. Consultative meetings between the least developed countries and donor institutions to review and co-ordinate technical assistance for individual least developed countries or groups of such countries.

3. Association of different sources of technical assistance in connexion with the same project and assistance in the establishment of adequate consultative machinery for co-ordinating all external assistance for these countries. There may be a need to build up a special unit for this purpose within the Least Developed Countries Section of UNIDO.

4. Favourable consideration to the financing of technical assistance projects from voluntary contributions available to UNIDO in accordance with the guidelines for the utilization of these funds.

5. Establishment of promotion centres and strengthening of the existing ones; consideration of the possible provision of the necessary funds from bilateral and other sources for undertaking feasibility studies and lending capital to the industrial sector through these centres.

6. Utilization of non-convertible voluntary contributions to UNIDO for the purchase of small factories, industrial units and instruments where possible in accordance with the guidelines for the utilization of these funds. Training programmes for LDCs should also be organized to make better use of these non-convertible currencies.

7. More use of capital development funds available to UNDP for the purchase of equipment, small factories and other essential complementary units in the least developed countries.

D. Training Measures

1. More emphasis on the training of instructors in the least developed countries to increase the multiplier effect. By training instructors, the availability of more than one trained counterpart would permit a continuous flow of experts, reducing the danger of work disruption should a counterpart be transferred to another post. More emphasis should also be placed on occupational non-formal education designed to develop particular knowledge and skills associated with various economic and related activities.

2. Emphasis on the training of personnel for existing industrial sectors, as well as for planned industries with potential to develop into basic sectors of industry.

3. Training surveys and assistance in the planning and implementation of accelerated training programmes to support the industrial and institutional requirements of industrial development.

4. Arrangements for nationals of the least developed countries to visit specific countries to study selected successful models related to the present and future activities of their own countries, thus benefitting from experience through exchange of views.

5. Evaluation of existing facilities for education and training in the light of industrial expansion and projected development, consideration being given to the redeployment of available skilled manpower.

6. Greater access to the training institutions of other developing countries.

7. Agreement to the proposed policy that all plants donated by, or through, UNIDO shall be available for the training of nationals of the least developed countries.

8. Training of nationals of the least developed countries carried out locally, if possible, by inviting instructors from developed and developing countries, rather than by sending trainees from the least developed countries to other countries. This method would enable the training of a larger number of nationals for the same amount of training money.

E. Proposed studies

Studies on the following broad topics are proposed to assist in identifying the particular problems of the least developed, land-locked and island developing countries, formulating suitable programmes to solve them, and help in accelerating industrial development.

1. Natural resources in the least developed, land-locked and island developing countries, and their industrial utilization.

2. Development of strategies for accelerating industrial development in the land-locked and island developing countries.

3. Development of appropriate industries in the semi-arid zone of the least developed countries, with particular emphasis on drought-affected countries (Sudano-Sahelian zone, Ethiopia and Somalia).

4. Identification of suitable production capacities in the developed countries for re-allocation to selected least developed, land-locked and island developing countries.

5. A study of the world market for animal feed and the utilisation of natural resources in the least developed countries for developing the animal feed industry.

6. Assistance required for the establishment of industrial development centres, for strengthening existing ones, in a certain number of the least developed countries which would be interested.

7. On request, a study of the over-all policy and strategy of industrial development in the least developed countries with a view to making recommendations for strengthening the planning and programming machinery, and to identifying technical assistance requirements.

8. A study of successful industrial development experiences in a number of developing countries with different social and economic systems, in selected industrial sectors and branches, with a view to making information on such experiences available to interested least developed countries.

Annex IV

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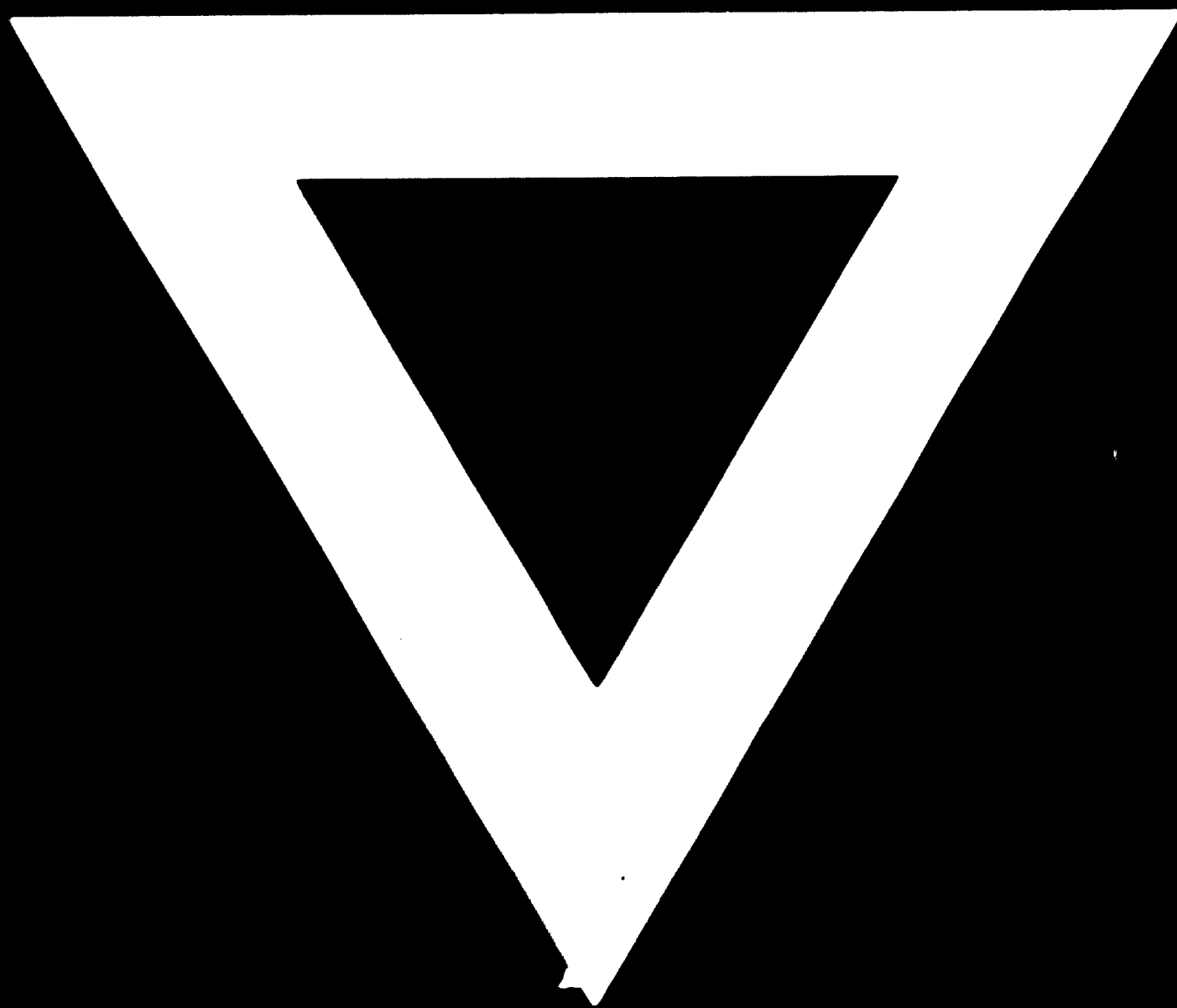
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77.09.19