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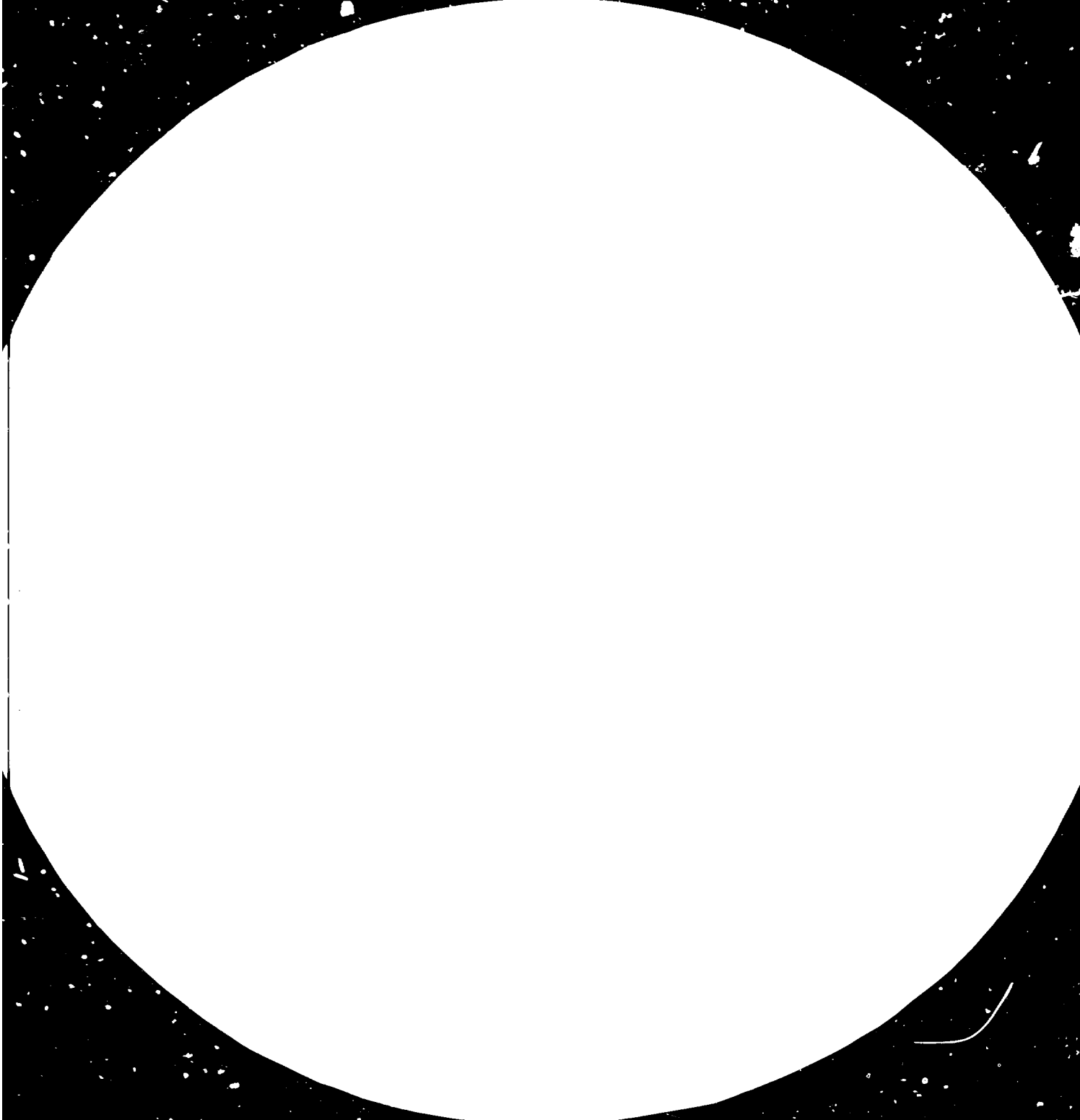
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Global Preparatory Meeting for the
First Consultation on the Training
of Industrial Manpower

Innsbruck, Austria, 25-27 January 1982

REPORT*

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PREFACE

The System of Consultations

The Second General Conference of the United Nations Industrial Development Organization (UNIDO), held at Lima, Peru, in March 1975, recommended that UNIDO should include among its activities a system of continuing consultations between developed and developing countries with the object of raising the developing countries' share in world industrial output through increased international co-operation.^{1/}

The General Assembly, at its seventh special session in September 1975, in its resolution 3362 (S-VII), decided that the System of Consultations called for by the Lima Declaration and Plan of Action should be established at global, regional, interregional and sectoral levels^{2/} and that UNIDO, at the request of the countries concerned, should provide a forum for the negotiation of agreements in the field of industry between developed and developing countries and among developing countries themselves.

The System of Consultations has been established under the guidance of the Industrial Development Board. At its fourteenth session, the Board decided to establish the System of Consultations on a permanent basis with the following main characteristics, including those described in its past decisions:

(a) The System of Consultations should be an instrument through which the United Nations Industrial Development Organization (UNIDO) would serve as a forum for developed and developing countries in their contacts and consultations directed towards the industrialization of developing countries;^{3/}

^{1/} "Report of the Second General Conference of the United Nations Industrial Development Organization" (ID/CONF.3/31), chapter IV, "The Lima Declaration and Plan of Action on Industrial Development and Co-operation", para.66.

^{2/} Official Records of the General Assembly, Seventh Special Session, Supplement no.1, para.3.

^{3/} Official Records of the General Assembly, Thirty-fifth Session, Supplement no.16, para.151(a).

(b) Consultations would also permit negotiations among interested parties at their request, at the same time as or after consultations;^{4/}

(c) Participants of each member country should include officials of Governments as well as representatives of industry, labour, consumer groups and others, as deemed appropriate by each Government;^{5/}

(d) Final reports of the Consultations should include such conclusions and recommendations as agreed upon by consensus by the participants as well as other significant views expressed during the discussion.^{6/}

Consultations on the Training of Industrial Manpower

The Board, at its thirteenth session, authorized UNIDO to convene in 1981 a First Consultation on the Training of Industrial Manpower. Due to a lack of financial resources this Consultation has had to be postponed to 1982.

In 1978 the Board decided that "an inter-secretariat working group should be established by UNIDO, in collaboration with UNESCO and ILO, with a view to examining the ways of maximizing the use of industrial manpower training facilities existing in developed and developing countries and to exploring their potential for expansion in relation to the needs of developing countries. The Executive Director of UNIDO should report to the Board at its thirteenth session on the results of the group's work, with a view to recommending to the Board, if appropriate, the convening of a Consultation Meeting on the Training of Industrial Manpower".

The UNIDO/ILO/UNESCO Working Group was established in December 1978; it suggested that preparations for the First Consultation should examine the potential for:

(a) Greater use of existing training facilities in the developed countries for the benefit of developing countries;

^{4/} Ibid., para.151(b).

^{5/} Ibid., para.152.

^{6/} Ibid., Thirty-second Session, Supplement no.16, para.163.

(b) Greater use of existing training facilities in the developing countries and the need for their expansion to allow, inter alia, for increased co-operation among developing countries;

(c) Improving contractual arrangements for the acquisition of industrial skills.

In 1979 a report was prepared by UNIDO, in consultation with ILO and UNESCO, entitled "The acquisition and development of industrial skills by developing countries" (ID/CONF.4/8). This report was considered by member countries at the Third General Conference of UNIDO (ID/CONF.4/22, paras.202 to 210); the developing countries noted the similarity of their proposals to those contained in the UNIDO document, while all countries generally supported it.

In May 1981, an Expert Group Meeting considered a paper prepared by UNIDO on "Issues for possible consideration by the First Consultation on the Training of Industrial Manpower" (ID/WG.341/1) which elaborated and refined the issues submitted to UNIDO III, taking into account the comments made at the Third General Conference and the conclusions of preparatory work undertaken by UNIDO in 1980. The Expert Group Meeting, in its report (ID/WG.341/3), considered the issues to be of particular relevance to international co-operation in industrial training, namely:

- Issue 1: The existing training capacity in developed countries, its potential utilization and adaptation for developing countries
- Issue 2: The potential utilization of existing training capacity in developing countries by other developing countries
- Issue 3: The potential role of international organizations and of national institutions with international training objectives

I. AGREED CONCLUSIONS AND RECOMMENDATIONS

1. When considering the three issues suggested by the secretariat, the Meeting agreed that with regard to:

Issue 1: The existing training capacity in developed countries, its potential utilization and adaptation for developing countries

2. The First Consultation on the Training of Industrial Manpower should consider:

(a) The importance of defining short and longer-term needs by the Governments of developing countries for enterprise, sector specific and more general training needs; enabling developing countries to cope with their short-term needs and to reach their long-term objectives through the setting-up of national training systems related to employment possibilities; programming the acquisition and development of technology and related skills;

(b) The organization and dissemination of information in qualitative and quantitative terms on the existing training capacity and training aids in developed countries corresponding to the demand from developing countries;

(c) The desirability and content of long-term arrangements, including financial ones, designed to help developing countries to meet their technology and training requirements; the improvement of the nature and content of contractual relations at the enterprise level for the acquisition of industrial skills.

Issue 2: The potential utilization of existing training capacity in developing countries by other developing countries

3. The First Consultation on the Training of Industrial Manpower should consider:

(a) The organization and dissemination of information in qualitative and quantitative terms on the existing training capacity and training aids in developing countries corresponding to the demand from other developing countries;

(b) The mutual recognition amongst developing countries of education and training standards and levels of qualifications in selected priority sectors;

(c) The mobilization of resources to cover co-operation in training industrial manpower at the enterprise and government level between developing countries;

(d) The desirability and content of long-term arrangements, including financial ones, designed to help developing countries to meet their technology and training requirements; the improvement of the nature and content of contractual relations at the enterprise level for the acquisition of industrial skills.

Issue 3: The potential role of international organizations and of national institutions with international training objectives

4. The First Consultation on the Training of Industrial Manpower should consider:

(a) The organization and dissemination of information in qualitative and quantitative terms on the existing training capacity and training aids in developed countries corresponding to the demand from developing countries;

(b) The long-term programming of the development of human resources, taking fully into account the interrelationships between education, training and industry; the development of new adapted training programmes, methods and techniques for various categories of personnel in line with the target set by the Lima Declaration and Plan of Action;

(c) Long-term forms of international industrial co-operation arrangements for the acquisition of industrial skills;

(d) The development of teaching materials that are learner-oriented, flexible and can be used in a wide variety of situations in developing countries;

(e) The preparation of an inventory and assessment of programmes, methods, and techniques of training corresponding to the industrialization needs of developing countries.

III. ORGANIZATION OF THE MEETING

5. The Meeting was convened in Innsbruck from 25-27 January 1982 as part of the preparation for the First Consultation on the Training of Industrial Manpower. It was attended by 27 participants from 21 countries, representatives of three United Nations organizations (UNIDO, ILO and UNESCO) and three non-governmental organizations (IOE, ICFTU and WFTU). The International Labour Organisation was represented by a tripartite delegation of its Governing Body and by representatives of the secretariat (see Annex I, list of participants).

Opening of the Meeting

6. On behalf of the Executive Director of UNIDO, the Meeting was opened by Mr. A. Pathmarajah, Chairman of the UNIDO Task Force responsible for preparations for Consultations on the Training of Industrial Manpower. The Meeting was then addressed by Mr. S.K. Jain, Deputy Director-General of ILO, on behalf of the Director-General of the same Organisation. Mr. A. Goodyear, Chief, Engineering Education Section, then addressed the Meeting on behalf of the Secretary-General of UNESCO.

7. The UNIDO Task Force and the Inter-secretariat Working Group (UNIDO/ILO/UNESCO) had considered a number of issues and selected three for presentation at the Meeting (ID/WG.354/1). Participants were invited to consider those three issues and any other issues that they chose to consider and to decide which issues should be given priority; the suggestion of the UNIDO secretariat was that the First Consultation should consider preferably two or three issues so that these could be discussed in depth.

8. The Global Preparatory Meeting was also addressed by the Head of the Negotiations Branch of UNIDO who described the System of Consultations and presented the main issues to be considered by the Meeting.

Election of officers

9. William W. Stevenson (United States of America) was elected Chairman, Ivan Petrovich Gureev (Union of Soviet Socialist Republics) and Paulo Afonso Horta Novaes (Brazil) were elected Vice-Chairmen.

Adoption of the report

10. The draft report of the Meeting was adopted at its afternoon session on 27 January 1982.

III. SUMMARY OF DISCUSSIONS

Introductory statements by the secretariats of UNIDO, ILO and UNESCO

11. The UNIDO secretariat stated that it had approached the training of industrial manpower bearing in mind the targets set by the Lima Declaration and Plan of Action, and the discussions and conclusions of its Third General Conference held in New Delhi in 1980; furthermore, it pointed out that the subject was being tackled within the framework of the System of Consultations. It stressed that the industrial training needs of developing countries had to be considered within the context of industrial and technological skills and capabilities over the next twenty years. All previous fourteen sectoral Consultations had identified the necessity to accelerate the acquisition of sector-related skills and capabilities. More specifically, given the result of investigations undertaken so far, the secretariat considered that the First Consultation on the Training of Industrial Manpower should consider three main issues.

12. Having considered the training being provided by developed to developing countries through various channels of international co-operation, the secretariat found that commercial arrangements at the enterprise level had become important when compared with official bilateral and multilateral assistance in this field. The investigations undertaken had shown how commercial arrangements are at present inadequate, for two main reasons: firstly, exporting enterprises are only marginally concerned with providing industrial training and secondly, entrepreneurs in developing countries have not fully understood the importance of industrial training when purchasing plant and equipment.

13. There was, therefore, a need to explore how co-operation arrangements between suppliers and purchasers of training could be improved. In particular, it was necessary to match imported technology and related skills with the requirements of the particular purchaser, taking into account the existing domestic training and technological capabilities, thus in the long run contributing to the attainment of national training and technological objectives. The secretariat stressed the need to monitor the import of technology to be in a position to make decisions on the choice of technology; furthermore,

it is necessary to train personnel in order to operate a plant efficiently and to be fully associated in the conception and implementation of industrial projects so as to enable them to master the technology and at a later stage to acquire the capacity to reproduce the means of production.

14. The investigations undertaken so far had shown that the training component within contractual arrangements is generally under-estimated and insufficiently defined, particularly with regard to its objectives and the implementation of training programmes. It appeared to the secretariat, furthermore, that investment in industrial training is equally under-estimated so that special attention should be given to the financing of industrial training; these problems should be discussed at the forthcoming Consultation.

15. The secretariat added that an increased exchange of information on technology and on existing training facilities would constitute an important improvement in facilitating co-ordination between developed and developing countries, as well as between developing countries themselves. When considering co-operation between developing countries, the UNIDO secretariat had found, for example, that the mutual recognition of qualifications would reinforce such co-operation. The secretariat finally raised the question as to the extent and the way in which international organizations and institutions with international training objectives could be of greater assistance to developing countries. It noted that the contribution of UNIDO in this area was modest, but felt it important that certain problems be examined in greater depth.

16. The representative of the International Labour Organisation stated that both its Director-General and its Governing Body had recognized the importance of the Consultations on the Training of Industrial Manpower; the Governing Body was thus represented at this Meeting by a tripartite delegation consisting of representatives of Governments, employers and workers. He stated that the International Labour Organisation had been playing a leading role within the United Nations system for several decades in supporting national endeavours which aim to promote and improve training; in this connection, many international instruments directly related to training had been adopted, and mention was made of Convention no.142 concerning vocational guidance and vocational training in the development of human resources. Six months ago, two comprehensive resolutions on vocational training and management development had also been adopted.

17. With regard to the Consultation on the Training of Industrial Manpower, the ILO representative noted the importance of technical co-operation activities and stressed that developing countries had called for ILO support to expand regional exchange of information and to enhance national training capacities which could be made available as part of regional schemes: these were two issues which had been proposed for discussion at the Consultations. The latter, he pointed out, focussed on project-related training involving international agreements and especially turn-key projects. He pointed out that such training must be part and parcel of a comprehensive national system of education and training. Furthermore, the regional co-operation activities of ILO would continue to focus on building national training systems, including the training of workers, supervisors, foremen, technicians, as well as training of instructors and trainers. In addition he mentioned the support given to the planning and establishment of management development institutions catering for the needs of industry and other sectors. In the area of advanced industrial training, the International Centre for Advanced Technical and Vocational Training in Turin played an important role in the training of trainers, of managers and of vocational instructors.

18. With regard to curricula development, the ILO had adopted the Modules of Employable Skill Approach. These efforts are being reinforced by more systematic association between the Turin Centre and the three regional institutions set up under the auspices of ILO. In this connection, the ILO representative noted that it was intended to create a bank of training materials consisting of learning elements with which flexible industrial training programmes could be developed to meet the specific needs of the trainees and requirements of the industrial employment market. He felt that this proposal might be usefully discussed at the Consultation. Furthermore, the regional training centres played an important role in the efforts of the ILO in promoting the exchange of information, experience, training materials and expertise. A major recent achievement was the agreement reached between these institutions to set up an interregional training information system.

19. The special importance of the ILO's tripartite industrial committees was stressed, since they were designed to discuss problems related to training and employment in specific industrial sectors in the phase of

social, economic and technological change. These industrial committees also provide a possible forum for co-operation between countries in the training of industrial manpower. It is in this tripartite context of industrial training that the ILO's Governing Body decided to send a delegation to this Meeting.

20. The achievement of the Lima targets for the industrialization of the developing countries represents a most urgent task in so far as the training of industrial manpower is concerned. International organizations such as UNIDO, UNESCO and ILO must help developing countries in achieving these targets, including through collaboration in the preparation of the Consultation on the Training of Industrial Manpower, which constitutes an important forum for this purpose. In this connection, the ILO representative stressed the contributions made to the preparation of the background paper and the issues paper for the Consultation. Furthermore, UNIDO and ILO are so engaged in exploring the possibilities for co-operating in skill development in specific industrial sectors of developing countries, such as to the agricultural machinery industry.

21. In concluding, the ILO representative pledged the full support of the ILO Director-General to UNIDO in preparing this important Consultation.

22. The representative of UNESCO stated that the training of industrial manpower is closely related to UNESCO programmes in education, to those in science and technology, and to work being carried out on the development process. Education is clearly the foundation on which any training must be built, an essential prerequisite for development. For many countries, illiteracy is still a major problem, only able to be resolved by provision of a sound basic education on which subsequent education and training can be built. For other countries, the cost of education is now of great concern, as is the need to make education more effective. UNESCO is working with its member States on these and many other aspects of education, including educational planning, teacher training, technical and vocational education, education of engineers and technicians, environmental education, science teaching, higher education, and educational technology and methods.

23. The interactions between education and the world of work have become a major concern of UNESCO in recent years. This was chosen as a special theme for discussion at the thirty-eighth session of the International Conference on Education, held in Geneva in November 1981. Many different policies and practices exist, with experiments in progress in many countries, and this is an area that is obviously related to the topic of the Global Consultation.

24. UNESCO has strong programmes in science and technology, all of which have training activities, and this area is now being given even higher priority, taking into account the results of the United Nations Conference on Science and Technology for Development, held in Vienna in August 1979. The training of industrial manpower is related to UNESCO programmes in science and technology policies, scientific and technological research and higher education, information services in science and technology, and to some aspects of programmes concerning environmental sciences and natural resources.

25. Another major concern of UNESCO has been the study of the overall development process, especially of the socio-economic and socio-cultural conditions of endogenous development. The social and cultural aspects of scientific and technological progress, with their implications for industrialization are important, as are the interrelations between development, environment, and population. Particular attention is also being paid by UNESCO to problems of rural development and of urban settlements.

General debate

26. There was general agreement that the issues contained in document I7/WG.354/1 were well presented and constituted a good basis for discussion at the Consultation; several participants pointed however to the close interrelationship between the issues under consideration.

27. Many participants stressed that medium and long-term manpower planning should be an integral part of overall development planning, and addressed the problems of defining the long-term needs for industrial training in developing countries. A few participants noted that the consideration of these issues was an extremely difficult and challenging task; one participant felt that the objective of the Consultation was to do at the international level what few countries had been successful in doing at the national level.

28. Some participants felt that Governments had a role to play in both long-term manpower planning as well as in arrangements for international co-operation related to industrial manpower training for developing countries. This responsibility, one participant felt, would require a strengthening of the national administrative capacity of these countries, such as the creation or strengthening of a public service responsible for employment. A few

participants, however, felt that the plans of developing countries suffer, because these were made by Governments alone and did not include adequate participation of the social partners with regard to their training needs. It was strongly recommended that trade unions and employers be systematically represented at Consultations; in this connection, it was pointed out by the secretariat that the form of participation of the social partners was governed by the Rules of Procedure for the System of Consultations.

29. Some participants pointed out that urban migration and the existence of an informal labour market require special consideration in long-term planning and provision of training. Other participants noted the importance of recognizing the training needs for the small-scale industries.

30. Several participants considered that training had to be seen in the context of training for particular jobs. However, other participants held the view that training should be broad-based so as to provide general skills not necessarily linked to a specific industrial process, with job-related training subsequently superimposed upon general training. A few participants pointed out the need to define a balanced relationship between domestically and externally located training.

31. A few participants stressed that during preparation for the Consultation, the studies available and the experience in industrial training of various countries should be examined and that comparative studies of this experience should be undertaken.

32. One participant, having extensively described the co-operation of his country in favour of developing countries, agreed that the three issues selected for the Consultation were a good basis of discussion, but suggested that the experience accumulated by countries with centrally-planned economies should be utilized. He said that during the twenty-year co-operation with developing countries in the field of education and manpower training, his country has built and is building in the developing nations over 240 training facilities of different types. Among those are 60 institutions of higher and secondary special learning where 32,000 students can be taught annually. By the present time, over 38,000 engineers and technicians for iron and steel, power, oil, and machine-building and other industries have graduated from already functioning educational establishments. 170 vocational technical

educational institutions, of which 120 are already operational in developing countries, can, according to our estimates, provide vocational skills for approximately 56,000 students annually. Nearly 600,000 skilled workers and foremen were given on-the-job in-plant training in the developing countries themselves. He pointed out that in his country approximately 60,000 specialists were given all types of education and training, and 32,000 of those graduated from higher and secondary special educational institutions. Nowadays, 38,000 students from 120 developing countries are studying in his country. He stressed that education and training in that country are free of charge.

33. One participant, noting that the more advanced among developing countries also export industrial plant and equipment, felt that paragraph 33(c) of Issue 1 should also apply to paragraph 46 of Issue 2.

34. Many participants addressed themselves during the general debate to subjects related to Issues 1, 2 and 3. The main views expressed are reflected under the appropriate headings of this report.

Issue 1: The existing training capacity in developed countries, its potential utilization and adaptation for developing countries

35. Participants addressed themselves to the information required with regard to suppliers and the needs of developing countries for the training of industrial manpower. It was pointed out by some participants that given 'their countries' industrialization targets and the target set by the Lima Declaration and Plan of Action, it was not possible to rely only on the training capacity of their countries; they felt that the acquisition of technology from the developed countries was essential. These participants noted that while some information does exist on the training which might be supplied by the developed countries, it was not always possible to have access to this information and to obtain a qualitative assessment of potential suppliers. Several participants stressed the need to reorganize a system for diffusing information on the world market for training.

36. Several participants drew attention to the difficulties of defining the long-term training needs of developing countries; they felt that however difficult this might be, an attempt should be made at their definition. In this connection, it was pointed out that given the very rapid changes in technology and structural change, it is necessary to maintain a degree of flexibility and adaptability in forecasting training needs. One participant stated that where the issues paper referred especially to training related to particular industrial projects and where forecasting of training needs would be more feasible on a sectoral rather than on a general basis, the problems related to training of industrial manpower should be an integral part of any future sectoral Consultation organized by UNIDO.

37. It was noted that there was an unequal pattern of industrial development among developing countries and that this should be an important factor in differentiating among methods for the provision of training.

38. When discussing commercial arrangements designed to acquire technology know-how and related training from abroad, many participants indicated that present commercial arrangements were not satisfactory for a variety of reasons, notably due to the lack of information with regard to the choice of technology and partners. One participant, reflecting the experience of his country, pointed out that the real problem is the lack of willingness of developed countries to part with any type of technology to the developing

countries; he circulated a paper describing this experience and called for a change of heart on the part of the developed countries in the mutual beneficial trading interests of both the developing and developed countries. The inequality in the negotiation capacity between suppliers and buyers, it was felt by many participants, did not always permit the acquisition of technology and know-how in such a way as to enable developing countries to master that technology and at a later stage to acquire the capacity to reproduce the same means of production. On the other hand, developing countries did not always pay attention to the linkage between the technology acquired from abroad and their national training systems. Several participants suggested that, since there are a large number of institutions in developing countries which are responsible for industrial training and for its acquisition from abroad, there is a need for a central co-ordinating body at the national level.

39. In discussing training related to the transfer of technology, a participant stressed that there could not be any general solutions and that a rational choice could be made only by solutions found on a case-by-case basis; he also stressed that there was a need for joint responsibility between suppliers and purchasers in the assessment of training needs as well as in the conception and implementation of training projects. Another participant noted that the diversity of technology and equipment acquired from abroad posed additional problems to training.

40. One participant stressed the role which Governments might play in commercial arrangements for the acquisition of technology and training and in particular to guarantee the quality of the training provided and the successful implementation of the parties' obligations. Other participants stressed how suppliers and buyers are often ready to forsake the training component of a contract for the purchase of plant or equipment, since they do not grasp its importance. In the opinion of these participants, training should be an integral part of these contracts and should be considered from the time a project is conceived. One participant pointed out that the selection, recruitment and training of cadres should be undertaken before production is initiated. Another participant, while agreeing that it was necessary to improve contractual relations, cautioned that if these were overdone it might discourage enterprises to involve themselves in the provision of industrial training.

41. The suggestion was made that financial institutions, such as the World Bank, should make it a prerequisite to include training when financing industrial projects. Several participants noted the importance of the provision of finance for project-related training and suggested that such consideration had a place in bilateral and multilateral investment credit arrangements.

42. Participants considered the training approaches and the levels of training which are most useful and necessary for developing countries as referred to in paragraph 21 of the document under consideration. In this respect, they considered that these subjects deserved examination by the secretariat and further attention by the Consultation. Several participants stressed the importance of the training of trainers and the need to train personnel at all levels related to a particular technological process. One participant noted, however, that of equal importance for developing countries might be the establishment of an integrated training system which will provide training for personnel in skills which are common to various sectors of industry. Another participant suggested that special studies be undertaken on education systems, on forecasting training needs within the framework of national development planning, with the involvement of those responsible for training at the national or enterprise level. One participant noted that because of the need for flexibility, an important role could be played by the provision of career guidance to young people.

43. A few participants referred to the Third General Conference of UNIDO and to the paper submitted at that time by the UNIDO secretariat; in this connection, they stressed the need to consider the problem of brain-drain and of migrant workers for discussion at the Consultation.

44. A few participants suggested that trilateral arrangements incorporating inputs from developed countries, developing countries and multilateral institutions to serve specific training needs of developing countries could be usefully expanded. One participant mentioned that there was potential for the export of complete educational and training systems.

45. Participants addressed themselves specifically to paragraph 33 of document ID/WC.354/1, and while agreeing in general to points (a), (b) and (c), stressed with regard to (a) that information to be made available should be both qualitative and quantitative, taking into account the social and cultural environment. It was noted that special attention should be paid to how information might be organized and that difficulties might be faced with regard to obtaining information from individual private sector enterprises. With regard to (b), the representative of ILO made a suggestion as to the formulation of this sub-paragraph; a participant stated that this paragraph should take into account international co-operation at both government and enterprise level and that the definition of long-term training needs should be based on an integrated approach involving all those responsible for education, training and industry. With regard to (c), the role of Governments in this area was underlined by a few participants; they noted that special attention should be paid to the inequality of the negotiation capacity of partners concluding contractual arrangements.

46. A representative of the UNIDO secretariat made a statement in order to clarify three questions raised during the discussions.

47. Firstly he recalled the "raison d'être" of this Consultation which had emerged from requests expressed in the sectoral Consultations held so far. At these Consultations participants had concluded that in general the training transferred to developing countries did not satisfy their needs, since it did not enable them to master industrial production complexes which were generally imported. Unless this transfer is secured, the massive industrialization of developing countries is likely to encounter serious difficulties. In reference to the recent scenarios prepared by UNCTAD for 1990 and 2000, it appears that the growth projections for developing countries are now below the breaking point between developed and developing countries considered in the Interfutures scenarios of OECD. It is in this context and relation to these challenges that the Consultation on the Training of Industrial Manpower will be most useful.

48. Secondly he stressed that the Consultation should examine the inter-relations between training provided by national institutions and that which is provided through international technological transfer. The importance of the latter has increased and is likely to increase even further in the light of the industrialization objectives of developing countries. The access to training is obtained through commercial transactions and international co-operation agreements, including official bilateral co-operation. It would be desirable to assess the respective importance of different types of training.

49. By referring to the example afforded by the capital goods industry, he underlined the great difficulties for national institutions to provide the training required by imported industrial plants when their technological level is very sophisticated. In this case, training cannot be properly linked and matched with the local technological capacities; as a result, these industries will not be in a position to play the role of "poles of development". Hence, the necessity to regulate the import of technology and to establish a bridge between the levels of national technological objectives and the education and training systems.

50. In order to enable developing countries to master industrial production and for training to be fully effective, attention was drawn to the need to strengthen the negotiation capacity of developing countries at the time when a project is being conceived. This required the training of a minimum of personnel which is capable to discuss the conception of projects and to make available techno-economic and commercial information. The negotiation should take place between equally informed partners. The full understanding of this crucial phase of the negotiation should permit a rational choice of partners capable of providing the most suitable training.

51. A longer-term solution would be to redesign less complex plants. One further step in this radical change which is of equal interest to the developed countries would be to reconsider the organization of enterprises, work, technology, in terms of men and not the converse, taking into account the exhaustion of the driving force of Taylorism and of the "on best way".

52. Special attention should be paid to the reform of curricula in order to include new knowledge and to polytechnical approaches to training.

53. Thirdly, with regard to the outcome of the Consultation, the representative of the secretariat considered that it would not be possible at the forthcoming Consultation to sketch general planning nor to assess the demand by country, sector and professional category. However, it is reasonable to expect that the organization of supply will be promoted and that views on the joint planning of industry, education and training will be put forward.

54. Concerning the key problem of formulating demand, the secretariat has begun to elaborate a methodology which is based on the analysis of sectoral inter-linkages and of their projected development, on the existing levels of technological complexity, and on the levels required in the future, on the identification of the content of the technologies to be assimilated.

55. In conclusion, the UNIDO secretariat hoped that the Consultation would review these main questions and thereafter tackle them in an innovative manner, in particular in order to improve training contracts within the framework of industrial arrangements. The objective is to enable manpower of developing countries to fully master the industrialization process.

Issue 2: The potential utilization of existing training capacity in developing countries by other developing countries

56. A number of participants stressed that considerable experience and expertise in training industrial manpower has been accumulated in some developing countries and that this experience could be of great value to other developing countries. Though co-operation between developed and developing countries still plays a major role, the importance of co-operation among developing countries in industrial manpower training is steadily growing.

57. One participant stressed however that the key to the acquisition of technology and related training by developing countries lay in their co-operation with the developed countries; thus, while agreeing to Issue 2, he felt that Issue 1 was all the more important.

58. Special attention, it was felt, should be paid to assisting least developed countries with training manpower for their infrastructure and service industries to enable them to embark into manufacturing industries.

59. Some participants stated that such co-operation could be effected through the setting-up of regional and sub-regional training centres, promoting fellowships among developing countries instead of sending them to distant regions which is not only costly, but places them in different social and economic environments. Another effective way, it was felt, of promoting co-operation among developing countries is the dissemination of information on training needs, improving the organization of the process of dissemination, more frequent updating of this information, and making sure that this information reaches the right people. In this connection, the representative of ILO described the objectives and programmes pursued by the Asian Regional Skill Development Programme (ARSDEP), the Interafrican Centre for the Development of Industrial Training (CIADFOR) and the Interamerican Investigation and Documentation Centre for Professional Training (CINTERFOR)-ILO supported regional training institutions, and gave examples of projects carried out by them, as well as projects implemented with the co-operation of the ILO Turin Centre.

60. Many participants stressed the need of mutual recognition among developing countries of educational standards and qualifications. A participant stated that such recognition of educational standards is easier to achieve on a regional basis, but it is much more difficult with training standards and qualifications due to the great number of training institutions.

61. A participant pointed out that training is a very scarce resource in developing countries, the training needs are enormous, and there is no danger in overlapping. The same participant also stressed the importance of creating incentives for those trained abroad to return to their home country by allowing for mobility between the private and public sectors.

62. A participant indicated to the Meeting that this Government had decided to host a Meeting of the Group of 77 on co-operation on the development of human resources for industrialization. Another participant informed on the activities of the Joint Centre for Management of Public Enterprises founded and financed by 40 developing countries. The emphasis in the activities of the Centre is on the management of such enterprises. The participant felt that this should be reflected in either of the paragraphs 37, 38 or 40. In the same context, another participant from Africa informed the Meeting that the African Institute for Higher Technical Training and Research will be set up in his country.

63. A participant emphasized the need for developed countries to recognize the interdependence between them and the developing countries, and the need for the developed countries to assist more actively the promotion of co-operation between developing countries in training industrial manpower.

64. A participant noted the negative effects of the brain-drain on the economies of developing countries. The Global Consultation Meeting should also consider migration from the point of view of training.

65. The following comments were made on specific paragraphs of Issue 2:

(a) A participant stated that paragraphs 40, 41 and 52 should also give due consideration to training of supervisors. Referring to paragraph 42, the same participant felt that preconditions are still not ripe for setting up joint regional centres. Another participant noted, however, the encouraging experience in regional co-operation in the training of manpower.

(b) A participant, referring to paragraphs 43 and 45(b), stated that the joint recognition of educational standards could also mean a recognition of qualifications provided by various institutions. He felt that it should be made clear that the text refer to standards and equivalence of qualifications separately.

(c) Referring to paragraph 44, a participant stated that while the first part of the paragraph is valid, the last sentence is over-optimistic. Furthermore, he noted that diagnoses of training needs cannot attract commercial financing. They can only be carried out on the basis of grants. Taking into account that technical assistance programmes, bilateral and multilateral, play a very important role in industrial training in developing countries, the Global Consultation Meeting should consider the measures for improvement and making those programmes more effective. Another participant, referring to the same paragraph, suggested that the following text should be added "financing of permanent training which has not been taken into consideration in the project". The same participant felt that more advanced developing countries which have benefitted from United Nations assistance in the past for training their industrial manpower should return part of this assistance by providing training facilities for other developing countries.

(d) Referring to paragraph 46(a), a participant stated that as in the case of Issue 1, external assistance from developed countries will also be required. Another participant felt that this sub-paragraph should read as follows: "the organization of information on the existing supply of training and training aids in developing countries corresponding to the demand of other developing countries".

(e) Referring to paragraph 46(b), a participant suggested that it should read as follow: "the mutual recognition amongst developing countries of education and training standards in selected priority sectors".

(f) A participant felt that the meaning of paragraph 46(c) should be expanded to cover all resources and not only financial resources. He recommended that the paragraph should read as follows: "the mobilization of resources to cover co-operation in training industrial manpower at the enterprise and government level between developing countries".

Issue 3: The potential role of international organizations and of national institutions with international training objectives

66. The Chairman raised the question whether Issue 3 should be recommended for consideration by the Consultation as a separate one or its content be integrated into Issues 1 and 2. Some participants supported the idea of integrating Issue 3 into the other two issues, because the activities of international organizations in this area also aim at strengthening co-operation between developed and developing countries as well as among developing countries.
67. Other participants felt that having a separate Issue no.3 would enable to state what is expected from international organizations, what is possible, and what is impossible.
68. A representative of the UNIDO secretariat stated that the integration of Issue 3 into the other issues might be useful, since the role of international organizations is important to promote co-operation in the field of industrial manpower training between developed and developing countries, as well as among developing countries themselves. Furthermore, for practical reasons, it will be difficult to arrange for three working groups at the Consultation.
69. Another participant stated that the role of international organizations could be considered on the basis of their main areas of activities and the means of action at their disposal: research, data banks, international standards, technical co-operation, technical co-operation among developing countries etc. The same participant elaborated on the above possibilities that could be undertaken on this subject. He felt that at the end of the Consultation a programme of action will probably emerge and the international organizations will have an important role to play along these lines.
70. A participant stressed the important role which international organizations could play in setting up training centres within large and complex industrial enterprises. These centres should be set up in the early stages of their construction and should continue to exist during the operation.

71. Some participants pointed out the importance of developing appropriate teaching materials with particular emphasis on Modules of Employable Skills which have a number of merits. It was also stated that ILO has produced a number of such modules, among them modular programmes for training of supervisors, administrative, clerical and secretarial staff. Another participant, whilst supporting this idea, stressed that there is a need for usable teaching materials. A proposal was made that an exhibition of teaching materials could be made at the First Consultation.

72. Other participants, while noting the important role which the international organizations have been playing in assisting developing countries, stressed the need for more innovative approach on their side, as well as the necessity of closer co-ordination among these agencies, including those with regional activities in training.

73. A participant stated that while the quantitative aspects of training carried out by international organizations is very important, more and more emphasis should be placed on the quality of the training. The same participant also pointed out the need for more emphasis to be placed on sectoral-oriented training.

74. The following comments were made on specific paragraphs of Issue 3:

(a) One participant stated that paragraph 47 should be supplemented with the idea that national training institutions with international training objectives should co-ordinate more closely their efforts with the efforts of the international organizations. This would help strengthen the impact of their training activities. One participant felt that additional work is needed by international organizations in emphasizing the role of training institutions which offer good training facilities for managers and other types of supervisory skills.

A number of speakers commented on the text of paragraph 51:

(b) Some of them stressed the need of not only training of trainers, but also of training of trainers of trainers.

(c) One participant pointed out that sub-paragraph (a) "teaching staff" should be further delineated as there is some difference between teaching staff, instructors and trainers of trainers.

(d) One participant noted an overlapping between sub-paragraphs (b) on page 22 and (c) on page 23. He suggested that (c) should read as follows: "managers of training programmes and institutions".

(e) Another participant suggested that sub-paragraph (e) should be added "training of administrators".

(f) Another participant suggested that a sub-paragraph (f) should be added to read "training of staff to develop teaching materials".

(g) Another participant felt that the last part of paragraph 51 is not clear enough. He stressed that trainers should maintain their close contacts with industry.

(h) One participant suggested that a sub-paragraph (d) should be added to paragraph 55 which should read as follows: "the development of teaching materials that are learner-oriented, flexible and can be used in a wide variety of situations in developing countries".

Annex 1

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Annex II

LIST OF DOCUMENTS

Information documents

Aide-mémoire

Provisional list of participants

Main working document

Issues for possible consideration by the First
Consultation on the Training of Industrial Manpower ID/WG.354/1

Background documents

Report of the Expert Group Meeting on the Training
of Industrial Manpower ID/WG.341/3

The acquisition and development of industrial skills
by developing countries ID/CONF.4/8

Report of the Third General Conference of the United
Nations Industrial Development Organization ID/CONF.4/22

Lima Declaration and Plan of Action on Industrial
Development and Co-operation PI/38

New Delhi Declaration and Plan of Action on
Industrialization of developing countries and
international co-operation for their industrial
development PI/72

