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**Industrial Development Board**

Second Session

Vienna, 17 April - 14 May 1968

REPORT OF THE

INTERNATIONAL SYMPOSIUM ON INDUSTRIAL DEVELOPMENT

held in Athens 29 November-19 December 1967

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SECTION I    INTRODUCTION

1. At its thirty-ninth session in July 1965, the Economic and Social Council approved the organization of an International Symposium on Industrial Development, to be preceded by regional symposia in the developing countries, and, on the recommendation of the Committee for Industrial Development, adopted resolution 1081 B (XXXIX), requesting the Secretary-General of the United Nations to take all necessary steps to ensure the holding of an international symposium on industrial development in developing countries early in 1967.
2. Economic and Social Council resolutions 1180 (XLI) and 1185 C (XLI) of 5 August and 17 November 1966 respectively recommended that Governments establish appropriate national machinery to prepare for their participation in the International Symposium, and decided that it would be held in Athens (Greece) in December 1967.
3. The General Assembly, in resolution 2178 (XXI) of 9 December 1966, endorsed the decision of the Economic and Social Council to convene the Symposium at Athens, and invited the Governments of States Members of the United Nations and members of the specialized agencies and of the International Atomic Energy Agency to participate in it. It also expressed its belief that the Symposium was likely to play a significant role in focusing attention on policies and measures aimed at strengthening international co-operation in the field of industrial development and accelerating the industrial development of the developing countries.

Opening ceremony

4. The International Symposium on Industrial Development held its first plenary meeting at the Panteios School, Athens, on 29 November 1967. Mr. Abdel-Rahman, Executive Director of the United Nations Industrial Development Organization and Executive Secretary of the Symposium, took the chair pending the election of the President of the Symposium and on behalf of the Secretary-General of the United Nations declared the Symposium open.

5. On behalf of all the participants, the Executive Secretary of the Symposium welcomed His Majesty, King Constantine I of the Hellenes, who gave an address of welcome to the Symposium, followed by a statement by the Greek Minister of Co-ordination.<sup>1/</sup> Mr. Abdel-Rahman then read a message from the Secretary-General of the United Nations expressing the opinion "that the many blessings that technology bestowed on those who have been able to make early use of it have also resulted in a new international barrier which increasingly separates 'North' from 'South'; developed from developing countries." He added that "in providing an opportunity for discussing in depth the many complex problems which must be dealt with in the process of industrialization, the Symposium will contribute to a better understanding of the underlying problems and to the creation of conditions for co-operative approaches to their solution."<sup>1/</sup>

6. In his opening statement, the Executive Secretary of the Symposium observed that "the era of political transformation from a world of colonialism to one of sovereign independent states is largely behind us ... This situation has generated among peoples and governments of all developing countries new operations for economic development, in order substantially to improve the standards of living and levels of welfare in the poor regions of the world. In this period of awakening to new opinions, the relationship between international economic assistance and co-operation and the economic yield thereof is sometimes obscure and in a number of instances the apparent reward from the co-operative effort has been diminished through mistakes, miscalculations and waste. All see the need for remedial measures." The Executive Secretary of the Symposium was nevertheless convinced "that the long-run relations between co-operation and benefit therefrom will be very different from this short-run situation" and "that the distribution of gains from increased international co-operation for the economic development of developing countries, in addition to being vastly more equitable, will be ultimately to the advantage of all."<sup>1/</sup>

<sup>1/</sup> The text of these statements is reproduced in Annex 2.



Attendance<sup>2/</sup>

7. The following States Members of the United Nations or of the United Nations specialized agencies and of the International Atomic Energy Agency were present at the Symposium: Algeria, Argentina, Australia, Austria, Belgium, Brazil, Burundi, Cameroon, Canada, Central African Republic, Ceylon, Chile, China, Congo (Brazzaville), Congo (Democratic Republic of), Costa Rica, Cyprus, Dahomey, Denmark, Ethiopia, Federal Republic of Germany, France, Ghana, Greece, Guinea, the Holy See, India, Indonesia, Iran, Iraq, Israel, Italy, Ivory Coast, Japan, Jordan, Kenya, Kuwait, Lebanon, Liberia, Libya, Madagascar, Malawi, Malta, Mauritania, Mexico, Morocco, Netherlands, New Zealand, Niger, Nigeria, Norway, Panama, Peru, Philippines, Portugal, the Republic of Korea, the Republic of Viet-Nam, Rwanda, Saudi Arabia, Somalia, South Africa, Spain, Sudan, Switzerland, Syria, Thailand, Togo, Trinidad and Tobago, Tunisia, Uganda, United Arab Republic, United Kingdom, United Republic of Tanzania, United States of America, Upper Volta, Venezuela, Yugoslavia and Zambia.

8. The following inter-governmental organizations were represented: African Development Bank, African Institute for Economic Development and Planning, Asian Productivity Organization (APO), Commission du Fleuve Niger, Comité Permanent Consultatif du Maghreb, European Economic Community (EEC), Fonds d'Entr'aide et de Garantie du Conseil de l'Entente, Inter-American Development Bank, Latin American Institute for Economic and Social Planning, League of Arab States, Organisation Commune Africaine et Malgache (OCAM), Organization for Economic Co-operation and Development (OECD), Organization of American States (OAS), United International Bureaux for the Protection of Intellectual Property (BIRPI), Union Douanière et Economique de l'Afrique Centrale (UDEAC).

9. The Department of Economic and Social Affairs of the United Nations Secretariat (UNDESA), the Economic Commission for Africa (ECA), the Economic Commission for Asia and the Far East (ECAFE), the Economic Commission for Europe, the Economic Commission for Latin America, the United Nations Economic and Social Office in Beirut (UNESOB), the United Nations Conference on Trade and Development (UNCTAD),

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<sup>2/</sup> The list of representatives registered at the Symposium is presented in Annex 3d.

the United Nations Development Programme (UNDP) and the World Food Program (WFP) were represented at the Symposium. The United Nations Office of Public Information was also represented.

10. The following specialized agencies sent representatives: International Labour Organisation (ILO), Food and Agriculture Organization of the United Nations (FAO), United Nations Educational, Scientific and Culture Organization (UNESCO), World Health Organization (WHO) and International Bank for Reconstruction and Development (IBRD). The International Atomic Energy Agency (IAEA) and the General Agreement on Tariffs and Trade (GATT) were also represented.

11. The following non-governmental organizations were represented by observers: Afro-Asian Organization for Economic Co-operation (AFRASEC); Carnegie Endowment; International Association for the Promotion and Protection of Private Foreign Investments; International Chamber of Commerce; International Organization for Employers (IOE); World Young Women's Christian Association (YWCA).

#### Rules of procedure

12. After informing the Symposium of the reservations expressed by the representative of Cuba at the first meeting of the Industrial Development Board with respect to rules 4 and 8, the Acting President invited the Symposium to adopt the draft rules of procedure. No comment being offered, the draft rules of procedure, as presented in document ID/CONF.1/A.2/Rev.1, were adopted unanimously.<sup>3/</sup>

#### Election of officers

13. At its first meeting on 29 November 1967, the Symposium unanimously elected the following officers:

President	J. Paraskevopoulos (Greece)
Vice-President	Amin Helmy Kamel (United Arab Republic)
Vice-President	N. N. Wanchoo (India)
Vice-President	Ricardo Samaniego Davila (Mexico)
General Rapporteur	Mohammed Ali Aghassi (Iran)

<sup>3/</sup> The rules of procedure are presented in Annex 3c.

14. The Symposium decided that its officers should form a Credentials Committee to examine any questions relating to the credentials of delegations.

Agenda

15. At its first meeting, the Symposium adopted the following agenda:<sup>4/</sup>
- 1) General survey of world industry with special reference to developing countries.
  - 2) Situation, problems and prospects of main industrial sectors.
  - 3) Policies and measures in developing countries:
    - (a) General issues of industrial policy and its implementation;<sup>a/</sup>
    - (b) Formulation and implementation of industrial programmes;
    - (c) Industrial manpower;<sup>b/</sup>
    - (d) Domestic financing of industry;<sup>c/</sup>
    - (e) Administrative machinery for industrial development;
    - (f) Industrial research and other technical services;
    - (g) Promotion of industrial exports and of export-oriented and import-substituting industries;
    - (h) Small-scale industry;
  - 4) International aspects of industrial development.
    - (a) Regional co-operation;
    - (b) External financing;
    - (c) Technical co-operation;
  - 5) Adoption of the report of the Symposium.

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<sup>a/</sup> Including the role of both the public and private sectors.

<sup>b/</sup> Including training and management.

<sup>c/</sup> To be considered together with item 4b.

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<sup>4/</sup> The provisional agenda and annotations indicating the documentation for each agenda item and sub-item are presented in Annexes 3b and 3f.

Organization of work

16. The plenary meeting approved the constitution of Committees I, II and III, which then proceeded to the election of their officers. In view of the importance of the questions they were about to consider, it was decided that each committee should have a vice-chairman in addition to a chairman and rapporteur. The following officers were unanimously elected by the respective committees:

Committee I

Chairman	Mr. P. Srichemara	Thailand
Vice-Chairman	Mr. M. Richards	Trinidad and Tobago
Rapporteur	Mr. R. E. Simpson	United States of America

Committee II

Chairman	Mr. R. Probst	Switzerland
Vice-Chairman	Mr. I. V. de Souza	Dahomey
Rapporteur	Mr. H. Pinero	Venezuela

Committee III

Chairman	Mr. J. B. Wanjui	Kenya
Vice-Chairman	Mr. A. Douaj	Kuwait
Rapporteur	Mr. R. L. Harry	Australia

Assignment of agenda items to the committees

17. The Symposium unanimously approved the following distribution of agenda items, sub-items and item sub-divisions among the committees:

Committee I

Item 3: Policies and measures in developing countries

- (c) Industrial manpower;
- (e) Administrative machinery for industrial development;
- (f) Industrial research and other technical services;
- (g) Promotion of industrial exports and of export-oriented and import-substituting industries;
- (h) Small-scale industry.

Committee II

Item 2: Situation, problems and prospects of main industrial sectors, including the following sub-divisions:

- (a) Iron and steel;
- (b) Non-ferrous metals;
- (c) Engineering industries;
- (d) Basic chemicals and petrochemicals;
- (e) Synthetic fertilizers;
- (f) Processed food;
- (g) Textiles;
- (h) Building materials and wood products;
- (i) Construction industry;
- (j) General discussion, including standardization.

Committee III

Items 3 and 4: Policies and measures in developing countries and International aspects of industrial development

- 3(a) General issues of industrial policy and its implementation
  - Part 1 Economic aspects
  - Part 2 Social aspects
- 3(b) Formulation and implementation of industrial programmes;
- 4(a) Regional co-operation;
- 3(d) Domestic financing of industry;
- 4(b) External financing;
- 4(c) Technical co-operation;

Appointment of special rapporteurs for discussion items

13. The committees authorized their chairmen to appoint special rapporteurs for each of the items on their respective agendas. The following special rapporteurs were nominated by the chairmen and appointed with the unanimous approval of their committees:

Committee I

3(c) Manpower	Mr. Jushio Fujimoto (Japan)
3(e) Administrative machinery	Mr. J. Minka (Cameroon)
3(f) Industrial research and other services	Mr. S. Ugolini (Brasil)
3(g) Promotion of exports	Mr. F. Thompson (Trinidad and Tobago)
3(h) Small-scale industry	Mr. B. Shata (Saudi-Arabia)

Committee II

2(a) Iron and steel	Mr. I. Al-Chorbachi (Iraq)
2(b) Non-ferrous metals	Mr. Rossi (Chile)
2(c) Engineering industries	Mr. T. Roland Berner (United States of America)
2(d) Chemicals	Mr. J. Martinez (Venezuela)
2(e) Fertilizers	Mr. R. Nancy (France)
2(f) Processed food	Mr. J. Horning (Federal Republic of Germany)
2(g) Textiles	Mr. A. Gilat (Israel)
2(h) Building materials	Mr. J. M. Kkondya (Tanzania)
2(i) Construction industry	Mr. L. Sasa (Democratic Republic of the Congo)
2(j) Standardization	Mr. A. Niesper (Switzerland)

Committee III

3(a) 1. General policy: Economic aspects	Mr. R. Lang (Yugoslavia)
2. General policy: Social aspects	Mr. C. Bermudez (Mexico)
3(b) Formulation and implementation of industrial programmes	Mr. M. Naouni (Tunisia)
3(d) Domestic financing ) and )	Mr. J. C. Ramaer (Netherlands)
4(b) External financing )	
4(a) Regional co-operation	Mr. A. Mounir (Morocco)
4(c) Technical co-operation	Mr. G. Lumsden (United Kingdom)

General committee on organization and conduct of work

19. When the plenary meeting was resumed, the President suggested and the Symposium unanimously approved the appointment of a General Committee to deal with the organization and conduct of the work of the Symposium as a whole. The Committee appointed was composed of the President, the Vice-Presidents and the Rapporteur of the Symposium, together with the officers of the three committees.

Industrial Promotion Service (IPS)

20. The International Symposium on Industrial Development brought together a representative group of leaders of industrial development from developing and developed countries. It was considered that in addition to participating in the regularly scheduled discussions of the Symposium, many participants would wish to make use of this opportunity to discuss specific industrial projects and their technical assistance needs with other interested participants. In keeping with its responsibilities for promoting and facilitating such contacts, under its terms of reference and work programme, the United Nations Industrial Development Organization (UNIDO) sponsored the holding of an Industrial Promotion Service (IPS) to take place simultaneously with the Symposium. The IPS was based in the Athens Hilton Hotel and was designed in the first instance to serve members of official delegations to the Symposium. UNIDO arranged for selected, interested individuals or organizations not included in official delegations to the Symposium to participate in the activities of the IPS as "special guests". The expenditures for the special guests attending the IPS were not covered by UNIDO.

21. A total of 600 persons attended the Industrial Promotion Service, 325 representing supplier organizations from 19 countries and 275 representing consumers from 61 developing countries, the latter mainly from official delegations.\*

Report of the Symposium approved

22. At its tenth plenary meeting, on 19 December, the Symposium approved the draft report and requested that the Executive Director of UNIDO bring the recommendations of the Symposium to the attention of the Industrial Development Board for study and

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\* A list of those attending the IPS is presented in Addendum 1 to this document.

appropriate follow-up, in accordance with the request of the General Assembly (GA Res. 2178 (XXI)), and to the attention of the international organizations concerned for their consideration and for such action as they may deem appropriate.

23. UNIDO, as the United Nations organization responsible for the central role in co-ordinating the activities of the United Nations system in the field of industrial development, would co-operate, as appropriate, with other United Nations bodies and agencies in the implementation of the recommendations that fall within the competence of those bodies and agencies. The emphasis of these recommendations is on operational activities and on the supporting research required for such activities. The recommendations reflect the insistence throughout the discussions in the committees of the Symposium that future activities in all these fields must be strongly action-oriented.

24. The Symposium also requested the Executive Director of UNIDO to inform the Governments of States Members of the United Nations and members of the specialized agencies and of the International Atomic Energy Agency who had not participated in the Symposium of the results achieved at the Symposium and to convey the wish of the Symposium that they contribute to the realization of the objectives agreed upon.



SECTION II    GENERAL DEBATE

25. A debate took place in the plenary in connexion with the discussion of Item 1 of the Agenda - "General survey of world industry with special reference to the developing countries". The report on the debate as adopted by the Symposium appears in the following paragraphs.

26. There was a common understanding in the Symposium of the aspirations of developing countries for an accelerated rate of industrialization. One delegation stated that the process of rapid industrial development often involved not merely the adoption of new methods of production but also a "reshaping of civilizations" in developing regions, and that this process could seldom be achieved without social evolution. Nevertheless, it was considered that rapid industrialization was one of the more powerful means of reducing the dangerous income gap between rich and poor countries.

27. Some delegations noted that there were at the broadest level two aspects of the problem of industrialization. There was general insistence on the primary importance of self-help by developing countries. The second essential element was the necessity for creating a growing climate of confidence between the developed and the developing countries.

28. Several delegations favoured a practical dialogue, to seek particular solutions to the problems of industrialization faced by individual developing countries. These countries were experiencing difficulties for a number of reasons, such as high rates of population increase, smallness of markets, inefficient agricultural sectors or deficient infra-structure, untrained manpower, unexploited natural resources, dearth of capital. The combinations of these limiting factors differed for each country. The diversity of cultural and political attitudes, structures and institutions must also be taken into account. In the opinion of one delegation, the desire for more rapid industrialization was fervent and widespread, but not absolute. It had to be considered along with a determination to maintain and improve individual, social and political conditions. While the pursuit of economic and non-economic goals might generally be regarded as complementary, there were examples of conflicts between the two goals.

29. Several delegations observed that the intricacies of the industrialization problem in any one country suggested the usefulness of thinking in terms other than of a homogeneous group of advanced countries vis-a-vis a similar group of developing countries. There were a number of advanced countries whose experiences in industrialization might be particularly commended for study by developing countries. These included countries which, while already enjoying a relatively high level of per capita income, had sought only recently to advance beyond the stage of dependence on a mainly agricultural economy. Some of these countries had diversified their economies through substantial assistance in the form of imported capital, or inflow of skilled manpower, or by establishing industries based on the processing of primary products. The heterogenous nature of the industrialization problems of the least developed of the developing regions was illustrated in some of the newly independent states and deserved special attention. Many of these countries had small internal markets, possessed few industrial undertakings - and these chiefly of small-scale - and were unaware of their industrial potential.

30. Several delegations considered that UNIDO, as the instrument for the co-ordination of all efforts by the United Nations agencies in the area of industrialization, had a special role to play in assisting developing countries in their efforts towards more rapid industrialization. The underlying approach should be flexible and pragmatic. In determining the particular paths towards a more efficient industrialization, UNIDO should assist in strengthening the will of the international community to act, thereby creating a constructive attitude on the part of that community. In its quest for solutions, UNIDO would take into account the reports and recommendations of the recent regional symposia on industrial development convened by the United Nations.

31. The view was expressed that the level of industrial development which had thus far been achieved in developing countries was far from satisfactory. The seven per cent average annual rate of industrial growth in the developing countries recently recorded meant relatively little in absolute terms because of the narrow base to which it applied. The volume of manufacturing production in the developing countries where the bulk of the world population lived, still represented less than one twentieth of total world production of manufactures. These stark facts remained during

the earlier part of the United Nations Development Decade: while the per capita value of manufacturing production in the developed countries approached 600 dollars per annum, (in terms of U.S. prices in 1958), the corresponding value for developing countries was only about 20 dollars. It had been suggested in the Industrial Development Survey (ID/CONF.1/46) that if the average annual rate of growth of seven per cent were to continue, it would take developing countries between 35 and 40 years to reach only the present aggregate level of manufacturing output of developed market economies. In the meantime, of course, the developed world would have advanced far beyond its present level.

32. In the light of the foregoing, industrial progress made in the developing countries as a whole had been insufficient to permit them to reach the General Assembly's suggested target of a minimum annual increase of 5 per cent in their aggregate national income. On the other hand, several delegations spoke of individual "success stories" and reviewed the substantial progress which had been made in their industrial sectors. Detailed examination of these case studies by developing countries would be especially valuable, and it would be equally useful to consider the mistakes and waste that had been involved in the industrialization of some other countries.

33. In examining the relation of industrial growth to over-all economic development in developing countries, the complementarity was noted between the development of industry and other productive sectors, particularly agriculture. This generally involved a more rapid advance by industry than by other sectors following the general pattern of economic growth. The view was also expressed that, for some countries at their present stage of development, emphasis on industrialization might be relatively less urgent and that the development effort should be concentrated in the agricultural and infra-structure sectors.

34. The Symposium was mindful of the problems of hunger and malnutrition which face many developing countries today. In the longer run, the chronic deficits in the supply of food would be eliminated by raising the levels of agricultural productivity in developing countries and this would require a far-reaching development of agro-industrial economy techniques. Accelerated industrialization and the development of modern agriculture were two complementary and mutually supporting processes, and a vigorous modernization of agriculture presupposed the existence of a strong

industrial sector capable of delivering the required industrial inputs, including fertilizers, pesticides, insecticides and agricultural machinery. Conversely, productive agriculture was a necessary complement of a growing industrial sector. As regards international action, UNIDO and FAO faced a joint challenge. The efforts of FAO in this area, including its Industry Co-operative Programme, were noted.

35. The Symposium regarded the establishment of an adequate infra-structure as indispensable for industrial and over-all development. An efficient transportation system was required to improve distribution channels to local markets, and this was most needed in the least developed of the developing regions. It was equally necessary to provide abundant and cheap supplies of energy. In this context, the potentialities provided by nuclear energy were noted.

36. In the view of some delegations, the purpose of a more rapid industrialization of the developing countries was the social betterment of their peoples. Some delegates felt that the increased allocation of funds to the development of welfare services should not await the achievement of increased national incomes. While the former was often a prerequisite for the latter, a careful assessment of the optimum effort in the area of social welfare was called for. It was also noted that efforts directed to more rapid industrialization had been facilitated where it had been possible to reduce national expenditures on defence.

37. In considering the pattern of sectoral development within industry, it was noted that there were few instances where the development of industry had proceeded as an organically integrated process. In particular, low per capita income levels, combined in some cases with small populations, had not made it possible to take full advantage of economies of scale. A more desirable pattern of industry in this case might be achieved either through an effort to find new markets or by application of more appropriate technologies. The view was expressed that an appropriate pattern must allow for the establishment of some sectors which, while not appearing efficient, as judged by private cost-benefit considerations, were nevertheless desirable on the basis of criteria of social profitability. It was mentioned by some delegations that a highly diversified pattern of industry was only one form of industrialization. Another approach, no less appropriate in some circumstances, involved concentration on the enlargement of old established industries. Considering the sectoral pattern of industrial growth in the last decade in developing countries as a whole, the

output of heavy industries had expanded at an annual average rate of over 9 per cent, while growth in light industries had been slightly more than 5 per cent.

38. Several delegations stated that the crucial link between the industrialization and foreign trade of developing countries called for particular examination. The substitution of imported products produced by the domestic industry of developing countries was a well-established means of building up a local industry while at the same time providing some relief from the pressures on the balance of payments. Some developing countries had by now apparently reached the limits of the opportunities of import substitution while some of the small and least developed countries had been unable to benefit therefrom in any material degree. Countries generally found the possibilities of import substitution limited to less specialized types of industrial products or to consumer products. Nevertheless, for many developing countries in their present stage of development, import substitution still represented a major element of industrial policy. A major problem in this area, which demanded continuing review, was to avoid high-cost domestic production that may be favoured by a policy of indiscriminate protection. Inefficient domestic production under the shelter of such protection does not always serve the interest of an industrialization policy aimed at a long-term, self-sustaining growth. It was recognized at the same time that a more appropriate structure of import levies might disrupt the flow of government revenues in the short run.

39. Some delegations considered that, among the possible solutions to problems of industrialization of developing countries, a policy of stimulation of manufactured exports deserved especial emphasis. Such a policy should not await the exhaustion of the possibilities for import substitution. A vigorous effort at facilitating the expansion of exports of manufactures could do much towards reducing the drag on the industrial development of developing countries presently hampered by small markets and denied the benefits of economies of scale. There would be considerable indirect as well as direct gains following a shift from an inward-looking to an outward-looking pattern of industrial development.

40. Several delegations stressed the necessity for a system of equitable trading relations between the developing and developed regions. This was necessary if the domestic efforts of developing countries for rapid expansion of their exports of

manufactures was to be successful. Some delegations stated that discriminatory tariff treatment of their processed export products was an obstacle to their industrial development. Support for a preferential system of tariffs to be applied to exports of manufactures from developing to developed areas was voiced by many delegations. While it was felt that support for a new and more equitable system of trading relations should be expressed at all international and regional forums, the responsibilities of UNCTAD and GATT for action in this area was fully appreciated. The fact could not be ignored that the lowering of trade barriers to the manufactures of developing countries might create some dislocation in the industry of some developed countries.

41. It was suggested that flexible and dynamic co-operation between UNIDO and UNCTAD would be of great value. Similar efforts by another international organization and by individual developed countries were also noted. There was much to be done in the dissemination of information, advice, training and market research leading towards an expansion in exports of manufactures from developing countries.

42. While one of the principal themes of the Symposium was concerned with the impact of increased manufactured exports on the industrial development of developing countries, the further beneficial impact of such efforts on their balance of payments could not be ignored. Increased export of manufactures would help to offset the adverse effect on the export earnings of these countries arising from the relatively inelastic long-term demand for their primary products. In addition, it would soften the impact of the short-term instability of their export proceeds from primary exports which were subject to strong cyclical influences.

43. It was mentioned that a variety of attempts to forge regional areas of industrial co-operation among developing countries had been made. While the problems to be overcome were extremely difficult, these attempts should continue. The clear advantages of regional co-operation arose from the possibilities of enlarged markets and greater specialization in the production of industrial goods. It was stressed that this form of industrial co-operation among developing countries would make possible import substitution on a regional scale. Many delegations noted several possible forms of regional industrial co-operation. These included co-operation on specific projects; establishment of indicative programmes of balanced industrial development; and co-ordination and harmonization of the industrialization plans

of neighbouring countries. Lessons from the co-operative attainments in the areas of agriculture, transport (river and highway development) and banking could be applied, as appropriate, to industry. Statements were made in connexion with efforts at regional co-operation in Latin America and Asia and in a number of sub-regions of Africa. Several delegations spoke of the work of the Asian Development Council.

44. It was indicated that, while regional co-operation in the area of industrial development had its many advantages, care should be taken to avoid conflict with the world-wide interests of member countries. The experiences of regional co-operation among groups of developed countries might well be of some value to developing countries.

45. The view was expressed that, while a detailed examination of the problems of foreign trade mentioned above was of importance, the ultimate barriers to more rapid industrialization of developing countries were the inadequate levels of foreign financial assistance and foreign technical assistance. While stressing the concept of self-help, it was considered that international action in that area would also contribute to the industrialization efforts of developing countries. The Symposium noted the estimate of the Industrial Development Survey that, in the second half of the Development Decade, the volume of fixed investment required by the manufacturing sector of the developing countries on the basis of planned capacity was possibly of the order of \$US 9,000 million per annum. It was suggested that attention should also be given to corresponding requirements for working capital for industry.

46. It was regarded as an inescapable fact for developing countries that successful industrialization would depend preeminently on increasing their self-help endeavours in marshalling domestic savings and channelling them, appropriately and effectively, into their industrial sector. However, the low levels of per capita income in these countries reduced the savings potential of the household sector and the possibility of its substantial contribution to investment in industry. It was noted, however, that some developing countries had various alternative sources of savings which they should exploit to the utmost. Substantial resources should be made available from activity in the primary products sectors of developing countries.

Efforts might be made to stimulate the transfer of such resources into industrial investment in developing countries rather than allow their dissipation for excessive luxury consumption and transfers of capital abroad. A similar endeavour might be made by governments where revenues accrue from royalties from the expanding exploitation of the natural resources of the country. Such royalties should be used, to an appropriate degree, to propel the industrialization of their countries. It was also noted that following recent successful land reform operations leading to the creation of many new landholders, there had been an opportunity to stimulate the investment of compensatory payments, inter alia, into the industrial sector.

47. There were, however, many difficulties to be overcome in achieving a greater mobilization of domestic savings for use in industry. Increasingly enlightened attitudes regarding a more equitable distribution of incomes within developing countries could initially, and on occasion, militate against an increased level of domestic savings. As a further example, it was noted that the mobilization of domestic savings for industry was sometimes hampered by a lack of experience on the part of savers in developing countries in investing in the industrial sector. The establishment and efficient operation of industrial banks might help to alleviate this problem.

48. Several delegations recognized that developed countries had a serious responsibility to assist the industrialization and over-all economic development of developing countries, primarily through the extension of foreign financial assistance. This assistance would supplement domestic savings efforts within developing countries. Regret was expressed that developed countries as a whole had failed to meet the development assistance target of supplying one per cent of their combined national incomes to developing countries set by the United Nations General Assembly in 1960. Since the minimum percentage allocated specifically to the manufacturing sector from the total flow of external financial resources to all sectors in the developing countries ranged between 15 and 25 per cent, the failure to meet the over-all target had important implications for industrialization efforts. One delegation noted, however, that his country had extended financial assistance to the extent of more than 1 per cent of its national income.

49. While recognizing the roles assigned to other international institutions in the area of international development finance, several delegations felt it useful to



express some general views which were applicable also to the problems of finance for industry. They felt that there should be a rapid and progressive improvement in the terms and conditions of such finance in which UNCTAD had an important role to play. Views were expressed regarding the desirability of an increased role for consortia or clubs of donors of development finance; and, further, of a new and the broadest possible approach to the problem of financial assistance to developing countries. It was suggested that an increased effort to evaluate the results of previous assistance might lead to improved yields from future assistance. While development finance for industry and other sectors in the developing countries was urgently required, it was recognized that such finance should serve the national welfare and fully respect the sovereignty of the recipient country; within such a framework there were ample opportunities of reward for foreign capital. The hope was expressed that the slackening of the rate of development assistance, which had been noticeable in the recent past, would come to an end and that a resurgence of such assistance would take place at the earliest possible time.

50. Several delegations recognized the generally differing patterns of deployment of public and of private flows of financial resources from developed countries. Foreign public capital was more generally suited to the development of the infrastructure and of the primary sector. It had, nevertheless, a strong impact on the industrialization effort of developing countries because of the inter-relation of all sectors of the economy. Several delegations expressed the view that, to the extent that the flow of foreign public finance was insufficient, the industrial sector in developing countries was bound to be affected. Specific views were expressed about the channelling of such capital. One view was that the choice between multilateral and bilateral approaches should be determined by their relative efficiency. Another view indicated the possible role of regional organizations. The hope was also expressed that such funds would be available for pre-feasibility and feasibility studies.

51. There was general agreement in the Symposium that private capital had an important role in facilitating a more rapid industrialization of the developing countries. It was urged, however, that the inflow of foreign private capital should be kept immune from political and ideological considerations, and it was hoped that the suppliers of such investments would be fully aware of and sympathetic to the specific

conditions and requirements of individual developing countries. Some representatives stated that private capital in today's world did not claim any special advantages in developing countries. Within this general framework, many developing countries indicated their determination to provide a wide range of incentives to encourage the inflow of private capital, including attractive financial returns and an environment of security and stability. It was recognized that developing countries had the right to determine the sectors of their economy in which foreign private capital would be more welcome. Note was taken of the action of a group of developing countries to provide a collective guarantee of safety to capital flowing into their area. It was indicated that whenever over-all economic policy in some countries required the nationalization of foreign enterprises, there would be the assurance of adequate compensation.

52. Several delegations maintained that international agencies, including UNIDO, could do much to facilitate the flow of foreign private capital into the industrial and other productive sectors. These agencies should be utilized, in particular, to discuss the full range of problems involved in facilitating and promoting private investment. In these matters co-operation between UNIDO and UNCTAD was to be welcomed.

53. Statements were made in connexion with the activities of the IBRD and the OECD related to guarantees for foreign private capital, and in connexion with the investments in the manufacturing sector which had been made by the World Bank Group.

54. The Symposium also heard of the highly constructive role of the United Nations Development Programme in the industrialization of developing countries, and noted that UNDP would, in close co-operation with UNIDO, respond to the greatest extent possible to requests for assistance for practical and concrete projects.

55. In further discussing the role of foreign private capital for the industry of developing countries, several delegations considered its particular importance as a conveyor of technology and, thus, as an instrument for reducing the technological gap between different regions of the world. The joint-venture device had proved to be particularly useful, given a milieu of mutual trust and goodwill. This form of international co-operation was well suited to a combined inflow of financial resources and of scarce technical and administrative talent. A number of delegations

stated that special attention should be given to possibilities of progressive transfer of foreign participating capital to domestic interests. In addition, the Symposium noted the assistance that foreign capital might render in increasing the exports of manufactures from developing countries. This expansion could be achieved where such capital was associated with the provision of marketing outlets in the developed countries.

56. It was suggested that the industrialization of developing countries lagged as much from the present lack of technical know-how as from a lack of capital. Several delegations considered that the rapid industrialization of developing countries required the vigorous employment of more appropriate technologies of production, through an enhanced international transfer of technology from the developed countries. This need for improved technical know-how excluded an isolationist approach to industrialization and called for close collaboration with the developed countries. It was imperative that the experience resulting from the scientific and technological revolution which had occurred in the more advanced regions of the world should be transmitted to all.

57. It was also suggested that a more efficient transfer of technology might be achieved by the establishment of links between particular developed and developing countries with similar technological problems. Such an approach to technological transfer might also be pursued by countries within a specific developing region. In cases where the flow of technical information between developing countries had thus far been limited, say, to the agricultural sector, an effort should be made, where appropriate, to extend the process to the industrial sector.

58. Some delegations stressed the role of patents in the transfer of technology. It was urged that, since the existence of patents stimulated invention and subsequent investment in their application, there was a need for widespread modern patent legislation in both developing and developed countries. The burden of royalty payments might be set against the benefits that ultimately accrued from the exploitation of new technologies. The programme of BIRPI in assisting developing countries to create or modernize patent legislation was noted by several delegations.

59. Some delegations pointed out that developing countries might examine the adequacy of their system of incentives designed to increase the inflow of technology

and technicians. It was recognized that developing countries should accelerate the transfer of technical know-how from foreign to local personnel. The contribution of developed countries in this area should involve their professional organizations as well as their private capital. There were opportunities for increased assistance also from inter-governmental and non-governmental organizations. The work of the United Nations Advisory Committee on Science and Technology in the field of industry deserved consideration. UNIDO, in collaboration with other agencies of the United Nations, had an important role to play by providing a permanent clearing house for technical information and advice.

60. Industrialization, at the annual rate of growth of 7 per cent of the output, has often created a number of problems relating to industrial skills in the face of the abundant supply of unskilled manpower in developing countries. It was considered essential that all ways and means be exploited to raise rapidly the level and efficiency of industrial labour. Because of the magnitude of the problem of imparting skills, it was necessary to identify those industrial sectors where this short-coming was most detrimental and begin remedial action there. Training institutions and appropriate wage structures were essential. As regards the problem of unemployed or underemployed manpower in many developing countries, it was recognized that industrial planners must consider the role of industry in absorbing part of the additional surplus labour emerging from the agricultural sector. The view was expressed that the industrial sector could not ignore the social trauma that might result from over-rapid and uncontrolled urbanization movements that are taking place. Considerations of short-run welfare should be balanced with long-run goals for rapid advance in over-all standards of living.

61. To facilitate the growth of a skilled industrial labour force in developing countries, it was indicated that some developed countries regard it as appropriate to concentrate much of their over-all foreign assistance efforts on the extension of training and teaching facilities. The view was expressed that emphasis on the training of labour to become a producer in a rapidly industrializing society should not encroach upon the benefits which give the labourer dignity as a citizen. Attention was given in this connexion to the long established and broadly based programmes of the International Labour Organisation.

62. In considering the relation between the natural resources of a developing country and its industrialization, it was recognized that processing of domestic primary products was a beneficial form of industrial development. Efforts should be continued, where appropriate, to increase the value added by progressively higher degrees of processing. The view was expressed that some developing countries may have a wide range of natural resources not yet exploited. The development of an industrial sector would, in such circumstances, call for a parallel development of the primary production sector. The limits to this form of industrialization should, however, be appreciated. Total dependence on exports of primary products, even when subjected to substantial processing by local industry, may result in an unbalanced industrial structure which would be detrimental to the over-all development of the economy. The extent to which industrialization should remain tied to the domestic primary sector should, therefore, be considered. This problem may call for individual solutions.

63. In a broad review of the problems of developing countries, the Symposium heard the varying attitudes towards planning for more rapid industrialization. While it was recognized that differing national philosophies and interests influenced the extent and character of industrial planning in a given country, it was urged that, in planning industrial development, there should be a practical and down-to-earth approach. Accordingly, planned projects should meet a need and should be sound and capable of efficient management - an approach that demanded, as a minimum, experience and knowledge. For some newly independent developing countries, planning entailed an initial establishment of a basic inventory of potentialities since there had been no prior satisfactory collection of essential data. Only then could meaningful development priorities be determined. Moreover, planning called for an interrelated development in the various industrial sectors. In considering inputs and outputs, it was necessary to incorporate into the plans such variables as foreign exchange, local natural resources, economic and social infra-structure and manpower. Above all, it was essential to make an accurate appraisal of the human element, and to take into account the need for planning a satisfactory pattern of income distribution and a generally progressive social policy.

64. As an element in industrial planning, the role of the public sector had varied substantially among developing countries. For instance, some countries had considered that the public sector should be a strong and permanent element of the industrial structure. Elsewhere, the public sector had initiated industrial activity, to be progressively supplanted by private initiative. Some other countries indicated the desirability of a larger role for the private sector on grounds that this might provide an incentive for the inflow of private capital.

65. Location and size of plant were important elements in industrial planning. Decentralization of industrial plants within a country was favoured as a means of solving the problem of poverty in some regions. An appropriate role should be given to small-scale industries producing for local as well as for export markets. Small-scale plants were considered by some to constitute a flexible component of industrial development and, in many cases, did not require substantial amounts of foreign capital.

66. The Symposium was informed of the important work of the United Nations Committee for Development Planning and of its general co-ordinating role within the United Nations in regard to over-all planning for economic development. The view was expressed that UNIDO might give assistance, upon request, to developing countries in their industrial planning and, inter alia, in the establishment of various strategies of industrial development.

67. Several delegations stated that there was a general need for expanding and improving the range of industrial institutions. It was indicated that developing countries might benefit greatly from the existence of governmental agencies specifically devoted to the promotion of industry. It was also important to develop national research and development institutes whose work would be closely related to the actual needs and conditions of the countries concerned. It was suggested that substantial institutional work was also required in the field of standardization. The view was expressed that, although there was a dearth of industrial institutions, it was necessary to avoid excessive proliferation, both at the nation and international levels. It was suggested that UNIDO might perform the role of a clearing house in this area.

68. It was suggested also that recognition be given to the complexities and difficulties of the process of development and to the inevitable time lag between assistance and its yield in terms of economic growth. This recognition should help to strengthen the climate of international co-operation, in particular as regards the promotion of accelerated industrialization of developing countries.

SECTION III A. GENERAL REPORTS OF THE COMMITTEES

69. Committee I held thirteen meetings; Committee II twenty-two meetings; and Committee III twenty meetings. The discussions are reported by agenda item and sub-item in Annex 1 of this report. In addition, each Committee prepared a general report; these were adopted in plenary and are presented in the following paragraphs.



COMMITTEE I

70. Committee I discussed five inter-related agenda topics which could be broadly described as industrial services:

- (a) Industrial manpower (Agenda item 3c)
- (b) Administrative machinery for industrial development (Agenda item 3e)
- (c) Industrial research and other technical services (Agenda item 3f)
- (d) Promotion of industrial exports and of export-oriented and import substituting industries (Agenda item 3g)
- (e) Small-scale industry (Agenda item 3h)

71. The Committee recognized that the establishment and growth of industry depend upon the interplay of many different factors, including such obvious ones as basic resources, capital, markets, qualified and skilled manpower, planning and management, institutions and technology. These factors also include very importantly the availability of those practical industrial services which facilitate the creation of new enterprises and help to meet the special needs and problems of individual enterprises as they grow.

72. Industrial services do not apply to the creation of new industries or of new enterprises alone. Management of existing enterprises must be in position to anticipate market trends, and to maintain and extend effective marketing, both at home and in export markets. It may need assistance with management or with financial or technical problems. Production or cost problems may suggest a need to raise productivity, to modify products or to train personnel. A firm may need modern patent facilities, either to protect its own innovations or to help attract technology from abroad.

73. While some individual enterprises in developing countries may be able to meet some of these vital needs from their own resources, none can hope to provide them all. Depending on a country's preferences and structure, these services may be furnished variously by specialized private firms, by trade or professional associations, or by the government itself.

74. The consensus of the Committee was that great flexibility was desirable respecting the particular ways in which these services could best be provided in individual countries. While useful observations might be made concerning the considerations bearing on each subject, as set forth in the following individual reports, the arrangements and facilities suitable to each country must depend upon the circumstances of that particular country.

75. The reports on individual items on the agenda of the Committee appear in Annex 1.

COMMITTEE II

76. The task of Committee II was to review selected sectors of industry in order to appraise their potential growth in developing countries within the framework of the world-wide development of each industry. Characteristics of demand, trends in productivity, capital requirements and international trade were surveyed for each of these sectors, together with a consideration of technological and economic factors affecting industrial feasibility. The Committee's review was under the following major sub-divisions: iron and steel, non-ferrous metals, engineering, basic chemicals and petrochemicals, synthetic fertilizers, food processing, textiles, building materials and wood products, construction and standardization. The Committee's work was considerably facilitated by the preparation of documentation by the secretaries of UNIDO, the specialized agencies and the regional economic commissions, as well as by detailed submissions of member countries. The Committee particularly appreciated the series of papers "Issues for Discussion" which had been prepared for it for each of the sub-items of its agenda. In the course of its deliberations, the Committee noted a number of characteristics which were common to many of the industrial sectors under review. The Committee felt it useful to indicate these common points in a general introductory note (paragraphs 77 to 85 below).

77. The selection of industrial sectors for development might be facilitated by better information on the short-term and long-term supply and demand influences, both domestic and international, affecting each industrial sector. Attention should be focused on the inputs envisaged for use by the particular industrial sector as well as on the markets in which output was to be sold. It was recognized that each sector of industry made its own contribution to economic and social advance. In some cases, the output of one sector represented an input into another industry sector or into agriculture. In other cases, the output of an individual sector primarily assisted general investment activity or directly helped in advancing the levels of final consumption. It was suggested that the opportunities presented by some industries had not always been fully appreciated. The degrees of complexity of production within a sector was considered; in some cases it was felt preferable that sectoral development might proceed, by stages, from the less to the more complex.

78. It was indicated that careful attention should be given to the nature of changing demand for the products of an industrial sector. Industrial planners should take into account fully the sometimes rapid changes in demand that occur in a dynamic economy. Substitution of industrial products may occur in the interest of lowering the cost of consumption, or because of supply problems. While the prime consideration in some cases was the cost element, in other cases it was to meet and improve quality standards and functional suitability. If demand was to be met efficiently, the precise condition in, and requirements of, the purchasing sector had to be appropriately evaluated. Measures for stimulating demand should be considered: such measures might include improvements in distribution, marketing, provision of credit facilities and education of purchasers.

79. Many industrial sectors in developing countries were hampered in their expansion by the limited size of their domestic markets. In addition to generally low internal levels of per capita income, many countries had small populations. Among the means of exploiting economies of scale in production, attention of some industrial sectors was centred on increased domestic substitution of imported industrial products and expansion of exports of such products, particularly to regional markets. In working towards regional co-operation, an endeavour should be made to achieve complementary specialization by partner countries. There was the essential problem of equitable distribution of industrial projects. In the case of some industrial sectors, co-operation might take the form of regional efforts in the development of raw materials required for the industry.

80. It was recognized that industrial sectors had different capital requirements per unit of output. The assessment of capital requirements should take into account the direct needs for fixed and working capital as well as the capital for necessary infra-structure and other integrally related productive sectors. Opportunities should be taken to reduce capital requirements through the use of larger scale operations having lower capital costs per unit of output, provided these were justified by the size of the market. A reduction in the capital requirements of an industrial sector was sometimes possible through increased utilization of capacity already installed. This required assessment of causes of current under-utilization, e.g. lack of skilled manpower or of adequate raw materials and unexploited markets. Markets might be expanded in several ways, including increased

recourse to sub-contracting and more determined export efforts. A reduction in capital requirements was also possible through improved maintenance and repair and ensuring the ready availability of spare parts, with the resulting reduction of lost capacity and tied-up capital.

81. In order to secure adequate finance for industrial expansion, some delegations felt that special attention might be given to assistance from relevant international finance institutions. Foreign finance might be deployed selectively to give priority to key sectors of industry, and such sectors, particularly, might be favoured by advantageous terms and conditions. It was suggested that, for each sectoral project, a proper assessment might be made of the appropriate mix of foreign and domestic capital as well as of complementary inputs. The success of ventures involving foreign capital might be enhanced by an equitable distribution of profits and by striking the right balance between national and external interests.

82. The discussions of the Committee gave particular attention to technological problems. In some industrial sectors a special effort might be directed towards use of technologies which reduce the size of minimum economic capacity. It was suggested that the unwarranted use of highly sophisticated machinery and technology should be avoided. It was also suggested that care be taken, when considering the employment of used machinery, to see that it was the most economic, having regard to all indirect as well as direct costs and benefits. The view was expressed that obsolescent technologies should not be foisted on developing countries. Care might be taken by developing countries not to engage unduly in pioneering of processes of production in their industrial sectors. Rather, emphasis might be given at the start to the application and development of existing well-proved processes. As regards the use of imported technologies, it was stressed that they should be appropriate to local conditions. In the transfer of such technologies, it was often advisable that close contacts be established between technicians in the exporting and importing countries. Individual assessments were advisable when choosing between turn-key plants and split contracts involving optimal use of skills, products and machinery of the developing country. It was stressed that the employment of the most appropriate technology would be facilitated by increased recourse to feasibility studies and demonstration and pilot projects.

83. The success of each industrial sector in its efforts at expanded activity depended on the ready availability of industrial raw materials, including fuel. It was suggested that the quality, cost and continuity of supply required that attention be given to the production and transportation of such raw materials as well as to their use. The view was expressed that there should be an efficient dependence and utilization of local raw materials. Particularly in cases where foreign exchange scarcity impelled a limited use of imported raw materials, it might become necessary to give special attention to the use of less conventional domestic raw materials. It was also suggested that manufacturers endeavour to use both basic primary products and their by-products.

84. The Committee recognized that the most effective use of capital, technology and raw materials by each industrial sector required an adequate programme of training of managers and professional and technical workers. Apart from the expanded use of training institutions, "on the job" training was regarded as highly desirable. Such training of skills was time-consuming and therefore required advance planning. It was suggested that a dynamic industrial policy might advantageously influence the presently observed "brain drain".

85. In addition to the above requirements for advance, each industrial sector required its special pattern of organization and of institutions. In addition to the conventional organization of industry, some industrial sectors might benefit from increased resort to producers' co-operatives. In other cases, it might be deemed appropriate to develop producer organizations, involving both the public and private sector. Special emphasis was given in the discussions of the Committee to the need for standardization at all stages - from raw materials through to finished products of industrial sectors - at as early a stage as was feasible. The lack of adequate attention to quality control could have serious and long-term consequences in terms of the acceptability of the products of an industrial sector. The committee took note of the detailed discussions in Committee I regarding the desirability of an appropriate institutional framework related to industrial development in developing countries. It was indicated that both local and international consulting services should be fully exploited. Meetings on these and other problems of individual industrial sectors would also be highly beneficial.

86. In addition to an exchange of views, the Committee noted a number of recommendations which were submitted either by an individual delegation or by a number of delegations. Moreover, the Committee approved a number of recommendations by general consent. The emphasis of these recommendations was on operational activities and on supporting studies and research required for such activities. These recommendations, together with a summary of exchanges of views, are contained in the reports on the individual items of the agenda of the Committee appearing in Annex 1.

COMMITTEE III

87. The Third Committee had as its task to discuss:

- (a) General issues of industrial policy and its implementation (Agenda Item 3a);
- (b) Formulation and implementation of industrial programmes (Agenda Item 3b);
- (c) Regional co-operation (Agenda Item 4a);
- (d) Financing of industry (Agenda Items 3d and 4b);
- (e) Technical co-operation (Agenda Item 4c).

88. All of the topics considered by Committee III were concerned in one way or another with the international aspects of industrialization, and, in the stimulating context of the Symposium, constructive proposals were made in regard to many of the subjects under discussion. The various agenda items could not, of course, be discussed in isolation. The discussion on industrial policy in the general plenary debate had already introduced a number of themes which were explored in more detail under various items of the agenda before the Committee. Discussions in other Committees of agenda items which bore some degree of relationship to these subjects were also kept in mind.

89. The Committee's discussions revealed a strong determination on the part of the developing countries to achieve industrialization and universal recognition by developed countries that such development was essential. It was stressed that industrialization programmes must be formulated in the context of over-all development plans; and that planning must take into account the changes in the social structure which are inevitably brought about by industrialization and which themselves exert an influence on the progress of industrialization, as well as such dynamic factors as population trends. The Committee recognized the necessity of developing a minimum level of economic, social and physical infra-structure as a basis for industrialization, and the need to establish stable economic and political conditions conducive to the acceleration of industrialization. The respective roles of the public and private sectors were discussed, and the Committee recognized the importance of each sector's playing its appropriate part in the over-all industrialization programme.



90. The Committee discussed the various obstacles to the acceleration of industrialization in the developing countries, including in particular the scarcity of financial resources and of technical and managerial skills, and the limited size of national markets. It considered how these obstacles might be reduced through such means as regional co-operation and international assistance; it was strongly emphasized that whatever outside assistance might be available, a major effort must be made by the developing countries themselves to overcome these and other obstacles.
91. Planning for mobilization of the necessary financial resources was recognized as an integral part of programming for industrial development. The Committee discussed ways and means of increasing available domestic financial resources and examined institutional and other measures which might contribute to this end. In considering the use of foreign resources, while some delegations noted with appreciation the foreign assistance which had already been provided, disappointment was expressed by some delegations that the flow of external assistance to the developing countries had not yet reached the United Nations target of 1 per cent of the combined national incomes of the developed countries, although some of them individually had exceeded this target.
92. The Committee noted that a valuable contribution to the industrialization of the developing countries could be made by foreign private investment. It was emphasized by both developed and developing countries that there must be a suitable investment climate in the developing countries. The means by which the developed countries could help to increase the flow of private foreign capital to the developing countries were also discussed.
93. The human factor was in the forefront of all discussions of the Committee, whether on programming, financing or technical co-operation. While the question of industrial manpower was the subject of debate in another committee, the problems for the developing countries of securing a sufficient supply of skilled manpower were noted and, especially in the discussion of technical co-operation, considerable attention was paid to ways of increasing the supply of skills, and particularly of entrepreneurial skills. In this connexion it was recognized that foreign investment is a valuable source for the provision of industrial skills and that training programmes

undertaken by foreign-financed industrial enterprises in developing countries are of considerable value in increasing local resources of skilled manpower.

94. It was recognized that new industrial technology is normally found in the industrially advanced countries. Where it was suitable for their requirements, the developing countries should be able to obtain it against reasonable payments.

95. The Committee agreed that regional co-operation among developing countries offered opportunities for improved markets for their industrial and other products, for achieving economies of scale and for some degree of rationalization of industry. It was recognized that differences in economic systems might introduce difficulties and that there could be disadvantages in sectoral co-operation, but these disadvantages would be reduced if sectorial co-operation formed part of the over-all development plans. Possible methods of achieving harmonization of development plans and equitable distribution of production facilities among the participating countries throughout a region were explored.

96. In discussing regional co-operation, the Committee noted that co-operative activities among countries not in the same region could also be valuable to the countries concerned and were worthy of encouragement.

97. The reports of the discussions, prepared by the special rapporteurs for each item and approved by the respective Committees, are presented in Annex 1. In addition to a summary of the main points made during the debate, they include a number of recommendations. The recommendations contained in the reports were either approved by general consent or noted as having been made by groups of delegations.

SECTION III B. RECOMMENDATIONS ON ESTABLISHMENT OF NATIONAL COMMITTEES

98. A recommendation on the establishment of national committees was introduced in a plenary meeting by representatives of Dahomey, India, Iran, Kenya, Syria and Trinidad and Tobago. This recommendation was preceded by the considerations reviewed in the following paragraphs.
99. During the last three years many Member Governments had taken a keen interest and participated actively in the regional and international symposia on industrialisation. They had formed, for that purpose, official delegations, prepared documentation and followed up resolutions and recommendations of these meetings. This work of necessity entailed close contacts between public authorities and private institutions and organizations interested because of their activities in the programme and activities of UNIDO. Particularly in connexion with the organisation of the Industrial Promotion Service, a large number of representatives of public institutions and private industrial establishments had come to realize the potential interest of closer relations with UNIDO.
100. The International Symposium witnessed the presence of a large number of ministers of industry and other high officials from the developing countries concerned with industrial development and with international co-operation in that field. In all countries, the need was increasingly felt for a permanent arrangement under which the various public and private bodies interested in co-operation with UNIDO could meet and co-ordinate their activities, including that of serving in advisory capacity to the government in UNIDO matters. In certain countries governments had already established national committees for the purpose of preparing for the Symposium; in some cases such committees were entrusted with the task of continued co-operation with UNIDO.
101. It was thus suggested that the Symposium recommend to all governments that they give consideration to the establishment of national committees for UNIDO. These committees would comprise representatives of government ministries, departments and agencies dealing with industrial development, and of academic and research institutions, professional associations and private and public business communities. The members of the committees would act in an advisory capacity and the structure and functions of the committees would be adapted to the structure and situation in each

particular country. The structure of the national committees should not be unnecessarily rigid, and their functions might well be discharged in certain cases through existing institutions with certain adaptations as might appear appropriate.

102. After discussion in the plenary, the following text of the recommendation on the establishment of national committees was adopted:

Recommendation on the establishment of national committees for UNIDO

It is recommended that Member States consider the establishment of National Committees for UNIDO, composed of representatives of government departments and agencies as well as representatives of academic and research institutions and public and private industrial and business establishments concerned with industrialization. The National Committees would serve in an advisory capacity to the governments and to the member institutions in regard to all questions related to the activities of UNIDO. Member States might assign the functions of National Committees to already existing organizations in their countries with any additional mandate as may be appropriate to enable them to perform their functions in an adequate manner.

SECTION IV FINAL ACTION OF THE PLENARY

103. In its final meeting, the plenary had before it two sets of recommendations, one submitted by the developing countries and the other by the industrially advanced countries participating in the Symposium. After discussion, it was decided by consensus to incorporate both sets of recommendations in this section of the report. The plenary also reached unanimous agreement on the statements contained in paragraph 104 below.

Recommendations presented to the International Symposium  
on Industrial Development by the Developing Countries

The first International Symposium on Industrial Development,

Considering:

The need to accelerate the industrialization of less developed countries as the strategic factor of a sound economic development for the achievement of world economic and political security;

That sound industrial development calls for rational programming leading to the adoption of simultaneous and co-ordinated international, regional and national policies;

The need to ensure that adopted industrial development policies lead to a new and equitable international division of labour between the sophisticated and incipient industrialized countries and guarantee to all developing countries the possibility of attaining progressively higher levels of industrial development and living standards;

The need to narrow the gap between developed and developing countries in the economic and technological fields;

Recommends the following guidelines for action:

A. National

- 1) That the developing countries base their policy of industrial development on long-range plans and programmes, which will take into consideration particularly the following:

The specific conditions existing in each country and the human, technical and natural resources;

The new vistas opened up by modern science and technology;

The opportunities offered by the domestic and international markets;

The scope of mobilization of domestic resources and the flow of foreign capital, public and private.

- 2) That developing countries give high priority on measures which aim at the development of an adequate infra-structure and which seek to remove obstacles in the way of rapid economic growth;
- 3) That the developing countries take due note of the need to build up industries, the products of which will in due time be internationally competitive;
- 4) That developing countries, as a part of the total research effort, give priority to programmes of scientific and industrial research which shall help in adapting foreign technology to local needs;
- 5) That developing countries give adequate attention to the formulation and implementation of industrial projects so that they represent the most economic use of available resources;
- 6) That developing countries give due importance to the development of small-scale and medium-sized industries as an integral part of their over-all industrial development programmes;
- 7) That developing countries establish or improve programmes for the training of industrial manpower in order to meet higher productivity and efficiency criteria;

- 8) That developed countries in their external financing programmes make adequate provision for industrial development projects of developing countries, whether in the public or the private sectors, and that developing countries, in their turn, ensure an adequate climate for the investment of foreign funds consistent with over-riding national interests, and that the developed countries on their part should provide adequate incentives to investors of their own countries in developing countries. In particular, they should endeavour to harmonize their policies in regard to incentives and guarantees for foreign investment;
- 9) That developed countries make available to developing countries industrial development loans (including working capital when necessary) and assistance on the best possible terms, offering whenever possible the possibility of repayment in local currency or through the products of the recipient countries. and that re-scheduling of debt servicing should be encouraged as far as possible;
- 10) That the developed countries encourage the flow of private capital to the developing countries, specially by offering fiscal exemptions for enterprises which intend to invest their profits in the developing countries;
- 11) That a reasonable proportion of the profits realized by foreign capital invested in a developing country by mutual agreement be reinvested in the country where the investment has originally been made;
- 12) That the removal of obstacles to access by the developing countries to the markets of developed countries should be considered an indispensable condition for the success of export promotion and export-oriented industries;

B. Regional

- 13) That efforts towards closer economic co-operation between countries are given due attention, with a view to enlarging the size of the market, which in the case of many countries constitutes a limiting factor on the possibilities of industrial development;

- 14) That co-operation between countries within a region or in different regions be based on mutual advantage and that developing countries utilize to the fullest extent the experience gained not only by industrially advanced countries but also by other developing countries in the course of their economic development;
- 15) That the regional economic commissions and other appropriate bodies keep under review the possibilities for regional and inter-regional co-operation including exchange of information, experience and technological know-how, and designs and prototype agreements;

C. International

- 16) That international organizations co-ordinate their activities in the industrial field in the light of the conclusions of the International Symposium on Industrial Development;
- 17) That the strengthening of the central role of UNIDO as the co-ordinator of all activities of the United Nations system in the field of industrial development ensure a higher and more efficient degree of co-ordination and operation;
- 18) That measures be taken by the concerned international organizations in the fields of trade in commodities and manufactures, shipping and international financing, with a view to achieving a higher rate of economic development; and that studies pertaining thereto as well as UNCTAD recommendations be duly considered and implemented;
- 19) That, in view of the need for foreign currency to accelerate industrial development, measures be taken with the co-operation of other international organizations to remove tariff and non-tariff obstacles to trade on commodities, especially raw materials exported from the developing countries;
- 20) That, in the field of trade in manufactures and semi-manufactures, measures be adopted, both on the removal of tariff and non-tariff barriers on exports of developing countries, and on the negotiation and implementation as soon as possible of an agreement on a tariff-preference system of a general non-discriminatory and non-reciprocal basis, in conformity with the principles of the Charter of Algiers;



- 21) That every possible advantage be taken of the Second UNCTAD to be held in New Delhi early in 1968, which will provide an exceptional opportunity to review the trade and development world situation, to negotiate concrete measures and to advance studies and encourage further consultations on specific questions;
- 22) That UNIDO be financially strengthened through the provision of adequate and independent funds as a prerequisite of efficient United Nations action to accelerate industrial development and to allow for concrete and useful implementation of the conclusions of the International Symposium on Industrial Development. In this connexion, all developed and developing countries are urged to do their best to attend the Pledging Conference, convened by the Industrial Development Board of UNIDO, to be held in 1968;
- 23) That all developed and developing member countries of the United Nations and its specialized agencies be given the opportunity to exchange experience, discuss measures and participate in the elaboration of guidelines for United Nations activities in the field of industrial development;
- 24) That UNIDO assist the developing countries in the formulation and implementation of industrial projects and in securing a systematic and permanent transfer of industrial information of new technology, production pattern, designs and prototype agreements. That UNIDO should establish within its programme of industrial information a suitable advisory service that will help the developing countries in getting the necessary information about the prices, designs and other factors that would lead to the best choice of industrial equipment;
- 25) That UNIDO formulate its work programme, specifically keeping in view the priority needs of developing countries, especially those which are least developed amongst them in industrialization and orientating its activities to meet the needs of developing countries in crucial fields;
- 26) That the programme of work of the UNIDO, while providing for collection and dissemination of industrial information and analytical research, emphasize the need for concrete action, and for this purpose give greater importance to action-oriented field programmes;

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- 27) That UNIDO, other international organizations and developed countries should accord relatively higher priorities to the less developed countries of the developing countries.

Recommendations presented by the industrially advanced countries participating in the International Symposium on Industrial Development

The first International Symposium on Industrial Development, considering the importance of industrialization of the less developed countries in their economic development and the need to create policies aimed at efficient, balanced and profitable industrial development which will be of mutual benefit to the developing countries and the industrialized countries; and the urgency to provide to all developing countries the opportunity of attaining progressively higher levels of industrial development and living standards;

Recommends the following guidelines for action:

A. National

- 1) That the developing countries base their policy of industrial development on long-range plans and programmes which will take into consideration the following:
  - The specific conditions existing in each country and the human, technical and natural resources;
  - The new vistas opened up by modern science and technology;
  - The opportunities offered by the domestic and international markets;
  - The scope of mobilization of domestic resources and the flow of foreign capital, public and private.
- 2) That developing countries give high priority to measures which aim at the creation of an adequate infra-structure and which seek to remove obstacles in the way of rapid economic growth;
- 3) That the developing countries take due note of the need to build up industries, the products of which will be internationally competitive;
- 4) That developing countries, as a part of their total research effort, give priority to programmes of scientific and industrial research which shall help in adapting foreign technology to local needs.

- 5) That developing countries give adequate attention to the formulation and implementation of industrial projects so that they represent the most economic use of available resources;
- 6) That developing countries give due importance to the development of small-scale and medium-size industries as an integral part of their over-all industrial development programmes;
- 7) That developing countries establish or improve programmes for the training of industrial manpower in order to meet higher productivity and efficiency criteria;
- 8) That developed countries in their external financing programmes make adequate provision for industrial development projects of developing countries, whether in the public or the private sectors, and that developing countries, in their turn, ensure an adequate climate for the investment of foreign funds; and that the developed countries on their part should provide such incentives as are feasible to investors of their own countries in developing countries;

B. Regional

- 9) That due efforts are made towards closer economic co-operation between countries with a view to enlarging the size of the market, which in the case of many countries constitutes a limiting factor on the possibilities of industrial development;
- 10) That co-operation between countries within a region or in different regions be based on mutual advantage; and that developing countries utilize to the fullest extent the experience gained not only by industrially advanced countries but also by other developing countries in the course of their economic development.
- 11) That the Regional Economic Commissions and other appropriate agencies keep under review the possibilities for regional and inter-regional co-operation including exchange of information, experience and technological know-how, and designs and prototype agreements;

C. International

- 12) That the UNIDO be developed to become an effective instrument for providing the necessary support for the formulation and implementation of long-term industrial plans and programmes in the developing countries;
- 13) That international organizations co-ordinate their activities in the industrial field, taking into account the central role of UNIDO as the co-ordinator of all activities of the United Nations system in the field of industrial development;
- 14) That UNIDO assist the developing countries in the formulation and implementation of industrial projects and in securing a systematic and continuing transfer of new technology on appropriate terms and in co-operation with competent international bodies;
- 15) That UNIDO formulate its work programme, specifically keeping in view the priority needs of developing countries, especially those which are least developed amongst them, in industrialization and orientating its activities to meet the needs of developing countries in crucial fields;
- 16) That the programme of work of the UNIDO, while providing for collection and dissemination of industrial information and analytical research, emphasize the need for concrete action, and for this purpose give greater importance to action-orientated field programmes.

104. As indicated above, unanimous agreement was reached on the following statements:

"The Symposium notes with satisfaction that these two sets of recommendations disclose agreement in certain areas. However, there remain areas of great concern to developing and developed countries alike, particularly industrial financing and commercial policies relating to industrial development, in which consensus has not been achieved. It is the earnest hope of all participants in the Symposium that continued discussion between the developed and developing countries, with the framework of UNIDO and other appropriate bodies will enlarge the area of common understanding and result in substantial progress in the industrialization of the developing countries at an accelerated rate.

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"we remain committed to the development of UNIDO as an effective instrument of international co-operation to further industrialization in the developing countries."

ANNEX 1 REPORTS OF COMMITTEES ON INDIVIDUAL ITEMS  
OF THE AGENDA

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REPORT OF COMMITTEE I

Agenda item 3 Policies and measures in developing countries

(c) Industrial manpower

Introduction

1. The Committee had before it documentation prepared jointly by the United Nations Industrial Development Organisation and the International Labour Organisation. In addition, there were background documents prepared by Governments and international organizations.
2. The Committee discussed the following specific issues and problems:
  - (a) Determination of goals, quantitative and qualitative, to be achieved in the education and training of skilled industrial manpower;
  - (b) The development of coherent and efficient systems, including provision of adequate legislative and administrative support, and the establishment of national Industrial Training Organizations, for attaining these goals;
  - (c) The special role of industry in development of skills;
  - (d) Measures to ensure the best possible use of available skilled manpower;
  - (e) The contributions that international action can make to enable the developing countries to formulate and implement effective training programmes for industrialisation.
3. Underlying the Committee's discussion of these issues and problems was the general consideration that it was urgent for industrial manpower to be given the same careful attention that has traditionally been accorded to natural and financial resources. The following is a brief summary of the Committee's deliberations.

Determination of goals

4. The need for systematic advance assessment of skill requirements was recognized as a basis for planning of industrial training and education. Imbalances in the availability of skilled manpower (e.g. over-supply of certain types of university graduates accompanied by acute shortages of other high-level skills)



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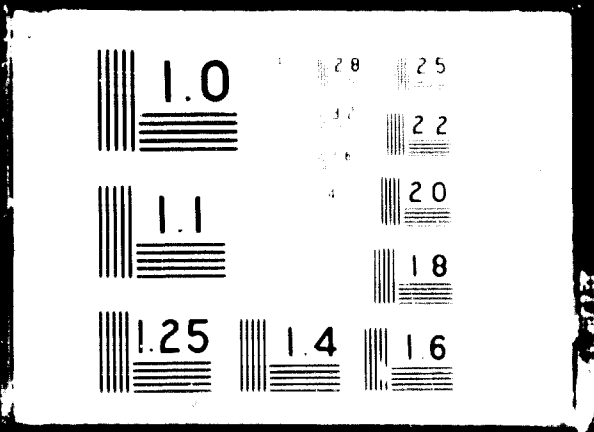
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were quoted as evidence of the need for such planning. Goals and priorities for training and education must be highly flexible. Many industrial skill requirements change often and quickly; they can be forecast and planned only in rather general terms.

#### Industrial training systems and organization

5. The Committee noted that training systems in most developing countries suffer from fragmentation and lack of co-ordination. This makes it difficult to formulate comprehensive plans for skill formation, and nearly impossible to carry them out. The Committee therefore considered the suggestion for establishment, in each industrializing country, of an industrial training organization. The functions of such a body would be to formulate targets for industrial training, to stimulate training by industrial enterprises themselves, to co-ordinate training by industry and the vocational sector of the education system, to prepare training materials, and to set training standards.

6. The Committee considered the above suggestion to be an interesting innovation, deserving serious study and thought. The proposed objectives and functions of an industrial training organization were generally welcomed by a number of speakers. Yet several speakers stressed that the organizational and administrative arrangements to be made for achieving these objectives and performing these functions should be quite flexible and pragmatic. For instance, in large countries, particularly if they had a federal structure, it would be necessary for any machinery for co-ordination and planning of training activities to be more in the nature of a federation of regional or local agencies than a strong central organization. It was also remarked that in some countries a number of the above functions are already being performed by existing agencies, so that no more than relatively marginal additional machinery might be needed. One speaker pointed out that a truly comprehensive framework for the co-ordination and stimulation of training activities should not be limited to the industrial sector but should comprise the economy as a whole. Some speakers believed that the functions of the proposed industrial training organizations should be limited to co-ordination between the school system and training by industry itself. One delegate suggested that UNIDO should convene a meeting of experts to examine the best organization and working

methods of national agencies to perform the functions of an industrial training organization.

#### The role of industry

7. For a wide range of skills, training by industry itself has great advantages over training in the school system. For these skills, training in industry has two main advantages. First, it trains personnel in skills for which there is a clear and specific need. Second, the training corresponds closely to the technology and working practices actually prevailing in industry. However, the full potentials of training in employment are not exploited.

8. One speaker said that training by industry itself may be fostered by making it compulsory for individual enterprises to train their own employees, as well as, in the view of one speaker, to provide opportunities for other young persons to learn a trade. Alternatively, or in addition, firms might be given inducements in the form of tax exemptions, or rebates, or preferential treatment in the allocation of scarce resources provided that they had a good training programme. In this connexion, reference was made to systems in some Latin American countries, France and the United Kingdom, where taxes on industrial payrolls are levied as a means of financing industrial training agencies and as a means of stimulating training in individual enterprises by offering rebates or subsidies to firms that are operating training programmes meeting certain standards. It was considered that such a levy system deserved further study.

9. Several speakers referred to the need for foreign industrial enterprises to appoint local personnel, especially also to high level posts, and to make this possible by providing the necessary training facilities for nationals of the country of the enterprise's operations. Reference was also made to the use that can be made of training facilities in industrialized countries. Some speakers pointed, however, to the greater advantages of training at home and referred to the disadvantages such as temporary absence, language and, sometimes, the unsuitability of training overseas in factories operating on a larger scale than in the home country.

10. Different categories of personnel need very special systems and methods of training, such as managers and workers of small industries. Economic and industrial administrators constitute another category for whom special training facilities must be provided.

11. Technical education and training must be based on adequate general education, adapted to the needs of developing countries. In the improvement of general education and of technical education and training, priority should be given to teacher training and the training of instructors. The importance of continuous education and retraining was also stressed, in view of changing technology and economic conditions.

#### Utilization of skilled manpower

12. There is a growing realization in many developing countries that proper utilization of skills is at least as important as the creation of new skills. Investment in training and in training facilities may be wasted because trained manpower is either misdirected or not utilized efficiently. Means of coping with problems of this nature include vocational counselling and guidance, fixing appropriate inter-occupational wage and salary differentials, incentive systems, and education in the values of the industrial society.

13. In this context reference was made to the problems of the "brain-drain". The developing countries are losing to the industrialized countries highly trained scientists, engineers and technicians. It was, however, suggested that this problem is not new. There has always been a movement of talent, e.g. from rural areas to cities, from one part of a country to another. This feature has now been extended beyond national frontiers. One approach to solving this problem consisted of maintaining a national register of scientists and technicians living at home and abroad; the personnel from abroad may be induced to return, e.g. by assuring them of a suitable position.

14. With the qualifications mentioned above, the Committee endorsed in principle the proposals and suggestions contained in the concluding parts of the documents submitted by the Joint Secretariat.

International measures

15. Many speakers, while appreciating the contributions made under existing technical co-operation programmes, expressed the view that the flow of such assistance - experts, equipment etc. - is hardly sufficient and needs to be expanded considerably. Streamlining of such assistance to make it more effective would also be useful.
16. Training is now generally regarded an investment as important economically as investment in physical assets. International finance has been made available for investment in machines but comparatively little for investment in men. It was pointed out that general education and some national vocational training institutions in Latin America have received loans. But industrial training, the yields of which can be direct, quick and high, has not received the attention it deserves.
17. The representative of one donor country felt that international aid efforts could be expanded more easily if a suitable local organization such as an industrial training organization existed. It was difficult to foresee cash transfer although assistance could be in the form of equipment, instructors and buildings. It was generally felt that international finance should in no way be made conditional upon the existence of an industrial training organization, and that international assistance in the form of equipment and experts should be increased. It was also felt that such assistance should be made available to countries which would not yet have drawn up comprehensive plans for industrial education and training.
18. There is considerable scope for joint action by developing countries themselves. Examples of useful joint action by countries sharing common problems were given. In all these cases the aim has been to provide first for the exchange of experience and personnel and second the design of new methods and techniques for tackling common problems of concept, curriculum and standards of training etc.

Recommendations

19. The Committee, in the light of its discussions, recommended the following:

A. General recommendations

- (a) There can be no growth of efficient industries in the developing countries if satisfactory solutions cannot be found to the key problem of providing an adequate supply of qualified manpower. The term manpower includes personnel for production, research, consultancy and other industrial services, at all levels, from the unskilled worker to the top manager. Special importance should be attached to the training and upgrading of middle and top-level personnel, including management, of industrial enterprise.
- (b) Comprehensive national plans for basic and advanced education as well as subsequent industrial training and upgrading should be drawn up whenever such plans do not exist. Countries should be encouraged to review these plans continuously on the basis of the best available indicators of future requirements as compared with the means likely to be available for meeting these requirements.
- (c) The possibility of establishing national industrial training organizations, which would formulate and help implement comprehensive plans for industrial education and training at all levels for small, middle and large-scale enterprises, should be seriously examined by industrializing countries. Such organizations should be as simple and flexible as possible; they should be fully adapted to the different national institutions, needs and conditions of the various countries concerned.
- (d) Industry itself should be encouraged to take greater responsibility for the training and upgrading of the national manpower of developing countries than it has shown in the past, especially medium and high-level manpower. Industry should also be given greater opportunities and responsibilities for participation in the work done by the vocational school system. Trade unions should also, whenever relevant, encourage training for industrial development.
- (e) Governments and industry should be encouraged to create incentives, in the way of remuneration, job satisfaction and status and adapted to local conditions, attitudes and social values, so that first, suitable trainees would seek to acquire the skills most needed; second, trained personnel would be channeled to the jobs where they were most needed; third, industrial manpower at all levels would do its work with greater efficiency.



## II. Recommendations for international organizations

- (f) International assistance in the field of industrial manpower should be carefully planned and co-ordinated on both the national and the international level. To this end, the organizations concerned, such as UNIDO and ILO should arrange for the pooling and further development of country data and, on that basis, draw up a joint medium-term indicative plan, showing probable needs for expert assistance, exchange of instructors, teacher training, provision of training materials and teaching aids, and for training and study abroad as well as in the country, and the ways in which these needs could best be met.
- (g) Countries that had worked out comprehensive plans for industrial education, training and upgrading should be eligible for increased international assistance.
- (h) When requested, UNIDO, ILO and UNESCO should help developing countries to draw up plans for industrial education and training. They should also study the feasibility of setting up industrial training organizations in individual countries, taking account of existing training institutions and programmes.
- (i) UNIDO and ILO should increase their activities in the field of management development, and assist developing countries in the rapid transfer of modern industrial managerial techniques adapted to the particular conditions of these countries. Such activities should be fully co-ordinated with technical assistance programmes available to these countries.
- (j) Apart from the assistance available to developing countries, UNIDO should provide assistance to these countries, in particular by encouraging the organization of programmes for training abroad and in the country of manpower for new industrial projects such as its in-plant training for engineers; for training of economic administrators concerned with industrial development; and for training of entrepreneurs, including those of small enterprises. UNIDO, in co-operation with ILO, should also serve as a clearing house for information on industrial training requirements of the developing countries and on sources of assistance - public and private.

Agenda Item 2: Policies and measures in developing countries

(e) Administrative machinery for industrial development

A. PUBLIC MACHINERY AND ITS ORGANIZATIONAL STRUCTURE

1. Location in the government machinery of the principal organ for industrial development

1. The general consensus of the Committee reflected the importance of having an effective administrative machinery for industrial development. This machinery, however, should coincide with the political and socio-economic conditions of each country as well as with the policy which the country itself has adopted.

2. Although it is difficult to generalize in prescribing a formula of organization for all countries, one delegation suggested a general approach which received endorsement from several other delegations. The suggestion was that governments should consider the advantages that may be derived by setting up an autonomous and highly specialized industrial development agency. The head of such an agency must have status. He should be a member of the cabinet or executive council, as the case may be, and should be responsible directly to the head of the government. It is only with this level of authority that the head of the agency could promote industrial development to the fullest extent. The functions of such an agency would include the implementation of the industrial development plan which had been formulated and approved by the proper authorities, the awarding of incentives to new or developing industries, the over-all responsibility for the State-owned industries, and sponsoring industrial development schemes.

3. The policy-making board of such an agency should include the ministers or permanent secretaries of all the related ministries (such as Economic Planning and Finance) and representatives of the Chamber of Commerce and Industry, banking institutions and trade unions. This organization should be staffed by highly experienced personnel in the fields of commerce and industry and should include industrial engineers, market researcher, financial analysts, legal experts etc.

4. Those who supported the idea of establishing an industrial development agency as the principal organ for industrial development based their endorsement on the idea that they inherited a civil service system which was used before their independence and was not suited to industrial development. Also, such an agency would speed up the implementation of industrial projects and cater to the needs of the private sector.

5. Some delegations were of the opinion that a country's Ministry of Industry should be the main organ in charge of industrial development. Some felt that when ministries concerned with industrial development exist, there is no room for an industrial agency to be established, as this would only create confusion, duplication of efforts and an extra burden on financial and personnel resources of a country. One delegation mentioned that encouraging the establishment of autonomous organizations in the industrial field outside the regular departments of government might encourage the copying of this idea in many other areas of activities, such as mining and agriculture, and thus fragment the whole machinery of governmental structure. Another delegate mentioned that instead of establishing autonomous organizations, countries should adjust their civil service systems to the needs of industry, a task which is relatively easy since many developing countries, especially those which have gained their independence recently, have had no time as yet to form deep-rooted civil service systems. One delegate expressed the view that the nature and role of the various bodies responsible for industrial organization and promotion were not among the most important issues. What was important, he said, was to have a coordinating body which would harmonize the various activities and thus avoid a dilution of responsibilities, duplication of work and conflicting areas of competence. One delegation mentioned that countries with low production capacity should not establish an administrative machinery which is out of proportion with this capacity.

## II. Relationship to various levels or functions of the public or private sector

6. Some delegates stressed their concern with the duplication of functions and activities inside the government departments because of vested interests and departmental loyalties. They wished to see a streamlining of activities within such departments and between ministries. They recognized that certain specialized activities, such as research, laboratory testing and standardization, would merit special units.

17. Some delegates supported the concept of separating the promotional function from the regulatory function. By keeping the policies function separate, the advisory services would gain the confidence and trust of the industrialists and entrepreneurs.

18. It was stated that concerned departments of government as well as business and labour should be adequately represented on boards of industrial development organizations or of departments.

#### 19. Sources of revenue

19. One delegation stressed that although the regular budget of the government forms the main, if not the only, source of finance for industrial services, some way must be found to adjust the budget system so that it will ensure the continuity of projects in the following fiscal years. If this is adjusted, the argument for engaging regular governmental departments in industrial development activities would be strengthened.

20. It was stated that some of the industrial services may be offered to the potential users at a certain cost, thus ensuring their serious use and appreciation of the service.

#### 21. Personnel policies

21. Some delegations mentioned that extra care should be taken to recruit personnel on the basis of their proper qualifications and not on political patronage. Both experience and formal training must be considered.

22. It was stated that various incentive measures should be adopted to encourage national managerial and technical personnel to stay on the job. These incentives may include having a part in the decision-making process in order that they may identify themselves with the organization.

#### 23. Control and evaluation of performance

23. Some delegates stated that the industrial development machinery of the government should be answerable to a legislative authority, such as a parliament. Accordingly, the minister concerned with industrial development would be in a better position if he were the supreme head of many, if not all, of the government's industrial development activities.

10. Several delegations mentioned that their governments have had to make sacrifices in their industrial activities and facilities. They stressed the need for the attainment of performance. Some elaborated on the various policies to be adopted such as evaluation.

### Special arrangements for industrial property

11. A few delegations expressed their disappointment in the existing international arrangements for industrial property, including the cost of registration of inventions worldwide, the acquiring of licenses and inadequate recognition by agencies of some industrialized countries of rights acquired by nationals of developing countries. They stressed the need for strengthening the machinery for industrial property in developing countries. One delegate stressed the fundamental importance to developing countries of creating machinery for their patent legislation so as to take advantage of the benefits to be obtained from the patent system which was the source of most technology. He also pointed out that, while royalties for licenses might appear to be an initial burden, the advantages to be gained for a developing country might be substantial.

### 9. THE ORGANIZED PRIVATE SECTOR AND ITS ROLE IN THE PROCESS OF INDUSTRIALIZATION

12. Most delegations stressed the importance of the organized private sector and its role in the process of industrialization. In their illustrations, they referred to such organizations as chambers of industry, trade unions and industrial co-operatives. They emphasized the possibility of partnerships between the government and the private organizations in the provision of industrial services. They would like to see measures for including such organizations in the process of industrial planning, training and consultancy services as well as other activities.

13. The potential of Chambers of Industry and Commerce was stressed and specific reference made to a number of functions they could perform to promote rapid industrialization. These include improving industrial relations through co-operation between management and labour; supplying business information, data, and advice; encouraging wider and better use of available technical assistance; and spreading knowledge and understanding of the industrialization process among the local business community.

### 7. MACHINERY FOR SUB-REGIONAL AND REGIONAL CO-OPERATION

15. Some delegates expressed the view that regional and sub-regional organizations are tied, in the first instance, to political problems. It was stated that regional activities are particularly suited to such regional functions as training and industrial property legislation.

16. While one delegation endorsed the idea of formation of industrial development corporations on a sub-regional basis, another delegation questioned the legal aspect of such multi-national organizations and requested further studies before taking any action.

17. It was stated that national organizations have an important contribution to make towards regional functioning. National institutions could assume regional responsibilities for some of the different specific functions on an exchange basis.

#### Recommendations

18. Developing countries should review the present administrative machinery for industrial development, its structure, functions and potentialities. UNIDO is requested to assist developing countries in this task. On the basis of this review, the countries would be in a position to modify their civil service systems to suit the requirements of industry and/or consider the establishment of autonomous industrial development agencies. UNIDO should assist governments in this connexion if requested to do so.

19. UNIDO should undertake a comparative survey of administrative machineries for industrial development in order to see if it is possible to distil therefrom a set of general principles and establish a world inventory of institutions and organizations for the administration and promotion of industrial development in the patterns most suited to the specific needs of each country.

20. UNIDO, in co-operation with other concerned organizations, should assist in the training of personnel needed for the administration of industrial services, including industrial property.

24. UNIDO, in co-operation with other international and national organizations, should study present arrangements for industrial property with regard to the special situations and problems of the developing countries. Upon request UNIDO should assist developing countries in securing advice in the administration of industrial property. UNIDO should assist requesting countries in locating sources of patents and know-how and advise on the terms for acquiring such patents.
25. UNIDO should undertake - at the request of national chambers of industry and similar institutions submitted through their governments and in co-operation with regional and international organizations concerned - studies of the present status, activities and capabilities of these institutions with a view to assisting them to play their indispensable role in the field of industrialization at both national and regional levels.
26. UNIDO is also requested to respond favourably, as appropriate, to requests submitted to it by national governments for assistance in improving the efficiency of these institutions.

Agenda item 3 Policies and measures in developing countries

(f) Industrial research and other technical services

PART 1 INDUSTRIAL RESEARCH

1. Levels and fields of research most appropriate for developing countries

1. Many delegations stressed the importance of institutional research in developing countries. Its services should be as closely related as possible to practical requirements of industrial development.
2. A few delegations expressed the need for planning research as an integral part of the over-all development programme allowing for better distribution and utilization of resources.
3. The general consensus of the Committee was that trained manpower and financial resources in developing countries being limited, the research projects should be carefully studied in their cost-benefit relations. Therefore, the fields of research to be covered should cater to the most immediate needs of those countries and should be concentrated in the fields of applied, developmental and adaptive research. This should not prevent the countries going as far as they can justifiably go in basic research.
4. The Committee noted that, depending on the stage of industrialization as well as on the socio-economic conditions, research institutes should concentrate on carrying out one or several of the following activities:

- (a) Investigations and development of raw materials and natural resources with a view to their better utilization and the discovery of new uses for them.
- (b) Adaptation of foreign technology to suit local conditions including the establishment of pilot plants as an intermediate step between discoveries in the laboratory and their actual commercialization.
- (c) Co-operation with individual industrial enterprises for supplying the services that may be required to solve and identify problems, including quality control, management services and productivity studies, trouble shooting and general technical assistance.
- (d) Promotion and assistance in standardization activities both at the national and the company level.



Industrial economic studies, such as market surveys, techno-economic feasibility studies, surveys and statistics of industrial sectors.

(f) Training at the technician and craft level.

Several delegates pointed out that when a specific natural resource or raw material of national interest exists, fundamental research into the nature of this material may be required.

### II. Organizational arrangements for research institutes

6. It was the consensus of the Committee that the conditions of a country should determine the arrangement under which a research institute is established. A few delegates pointed out the desirability of establishing suitable R and D functions within large industrial enterprises, thereby clearly identifying the fields of work and the possibility of direct application of results and findings. In this connexion, the possibility of co-operative research within industry as well as between industry and institute was raised.

7. The majority of the delegates agreed that, whatever the organizational arrangements, a research institute should enjoy a reasonable degree of administrative autonomy. One delegate mentioned the desirability of setting up a Committee with as broad a base as possible to advise and assist the institute in the formulation of research policy and reviewing of programmes.

8. Several delegates expressed the opinion that, owing to the desirability of co-ordinating regional research efforts, the establishment of industrial research institutes on a regional basis may prove to be of great advantage to a region.

### III. In-house initiated research projects versus contractual activities and services

A large number of delegations stressed the necessity of close contacts with industry so that results of research can be applied. Consequently, the importance of supplying services on a contractual basis was recognized as one of the major roles of a research institute. However, a balance between such activities and long-range research projects and investigations, in line with national goals of industrial development, should be established. Such a balance is a matter to be determined in each case.

10. It was the consensus of the Committee that in supplying services to industry special care should be given to the needs and requirements of small-scale and medium-sized industrial enterprises. In this connexion the technologies best suited to withstand competition while being labour-intensive should be carefully investigated.

#### IV. Sources of financial support for research institutes

11. Many delegates recognized that the government or other national sponsoring bodies have a leading role to play in the financing of research in developing countries. The assistance provided by United Nations and bilateral aid programmes, both in kind (equipment, books and in manpower (experts, fellowships), could greatly contribute to lightening the initial financial burden of developing countries. Some of the delegations from developed countries expressed their readiness to supply a variety of technical assistance to research institutes in developing countries. One delegation recommended that institutes have the goal of becoming self-supporting as soon as possible. In addition to the income derived from specific contracts, income should derive from royalties as a result of the self-initiated research programmes. It was pointed out that this would have the meritorious effect of assuring the most fruitful programme of work.

#### V. Personnel policies

12. It was generally recognized that since the success of a Research Institute depended to a large extent on the quality of its professional staff members, they should be remunerated on a scale that could balance the attraction from private industrial enterprises. A delegate commented on his country's success in re-hiring researchers who had left the country through adopting higher salary scales and providing a more stimulating professional atmosphere. Many delegates stressed the need for a sustained training programme for professional personnel in order to increase and update their skills. One delegate suggested that increased availability of research workers in developing countries could be achieved if they and the industrialized countries could agree on measures to limit the long-term employment in industrialized countries of trained scientists and technologists from developing countries.

Recommendations

13. In view of the necessity of co-ordinating the industrial research activity of a country with its over-all industrial development goals, governments of developing countries are urged to clearly define their research aims, requirements and programmes, both in terms of objectives and co-ordination in the use of scarce resources for research, and to incorporate them in their over-all economic national development schemes.

14. Taking into account that in developing countries there is not always sufficient interest in the services of industrial research institutes, it is recommended that Governments of developing countries try to create "research consciousness" in order to accelerate the full utilization of institutes' services.

15. It is recommended that UNIDO should attach high priority to fostering industrial research projects and activities designed to:

- (a) Investigate all possible new uses for local raw materials;
- (b) Adapt existing technology to the prevailing conditions (human, capital and natural) in the developing countries;
- (c) Devise, wherever possible, linkages between products and stages of processing as a basis for viable industrial complexes.

16. Recognizing that the supply of experienced industrial technologists capable of adapting laboratory research findings to a pilot plant scale and to commercial production is extremely limited in developing countries, it is recommended that the necessary steps be undertaken by UNIDO in co-operation with the appropriate organizations and institutions to promote the establishment of training facilities designed to adapt existing technological skills to the needs of the developing countries. Such steps should include the establishment of regional and international study and training programmes, emphasizing plant visits and field work.

17. Because of the vital need for exchange of information and experience, it is recommended that UNIDO be invited to consider the question of establishment of an international association of industrial research institutes with the objective of facilitating co-operation in the exchange of experiences, know-how and professional expertise.

18. To attain better utilization of available experience and resources it is recommended that UNIDO, in co-operation with competent national, regional and inter-regional organizations, should promote international collaboration between research institutes and organizations in developed and developing countries as well as regional and inter-regional co-operation and co-ordination of activities between developing countries. Such collaboration could be instrumental in overcoming the institutional and technical obstacle to the transfer of technology.

#### PART 2 CONSULTING SERVICES

19. The background documents which were available to the Committee discussed many items including the selection of consultants, the relationship between clients and consultants, the development of local consulting services and when to hire consultants.

20. On the basis of the discussion which took place in the limited time available to the Committee, the consensus was that the role of consultants in developing countries is indeed an important one. A few delegations stressed the advisability of contracting only with reputable and experienced organizations. One delegation pointed out the need for top-level consultancy services especially in the fields of accountancy and engineering. Such services would complement those already provided under the technical assistance programmes.

21. One delegation emphasized that the present lack of facilities in some developing countries necessitates engaging foreign consulting firms. However, it is felt that foreign consultants should devote some time to the training of the nationals as well as to assist in the strengthening and improvement of existing public and private organizations of the country.

22. It was stated that an international service of impartial arbitration could be of value to those who use consulting services in the event of any contractual disputes. In this connexion, the example was given of the Court of Arbitration of the International Chamber of Commerce in Paris.

### Recommendations

23. UNIDO, in co-operation with other interested agencies, was requested to compile and maintain a roster of industrial consultants. This roster could be of assistance to developing countries requesting identification of sources of consulting services.

## PART II INDUSTRIAL INFORMATION

### A. Supply of technological and business management information

#### I. Position and function of local sources of industrial information in developing countries

24. As appropriate consulting firms should be used by the United Nations technical assistance programmes to supplement the work of individual international experts.

25. Delegates stressed the importance of adequate national counterparts to act as correspondents for the exchange of information. Two delegates mentioned that the information their organizations supply was being channeled through central correspondents, that is authorized national bodies, to industrial users in the countries. Several delegates referred to the difficulties encountered by developing countries in handling the enormous quantity of information referring to industrial development and in making it accessible for industrial use.

#### II. Role to be played by advanced countries in the supply of information

26. Some delegates voiced their support for making established information services available internationally. It was stressed, however, that copyrighted material could not be made available without adequate compensation and the information supplied should not infringe on the rights of intellectual industrial property.

### B. Means of information adapted to the needs of developing countries

#### III. Information needs of developing countries

27. The consensus was that while the needs of developing countries cover a very wide area, their practical requirements call for material judiciously selected to answer their specific needs. In addition, a need exists for personnel to process documentary material.

#### IV. Printed material and audio-visual aids

28. It was stressed that any publications oriented towards developing areas should

which will lend itself to easy translation into local languages. The value of technical films was underlined, but it was noted that they must be prepared to satisfy local industrial needs and that film production is expensive.

#### V. Industrial extension services

29. The Committee stressed the importance of industrial extension services as an effective means for the transfer of knowledge and experience to industrial application. Industrial extension services might be attached to existing local industrial institutions, such as research centres or technical colleges, and serve as a two-way channel between industrial users and the expertise and information facilities of these institutions. In conformity with the essential role played by these services, developing countries should give priority to the training of extension personnel.

#### C. Regional co-operation

##### VI. Co-operative approach and distribution of responsibilities for specific tasks

30. It was suggested that regional or language groups use a co-operative approach in documenting and distributing industrial information. It was also mentioned that - within an area - specialization of individual countries in the coverage of information relating to different industrial subject fields might allow for more effective utilization of available means.

#### D. International liaison machinery for promoting the exchange of information

31. Certain delegations supported a proposal that UNIDO establish a computerized documentation centre, using microfiche for the storing of information. Several other delegations, however, pointed out the magnitude of the task and the prohibitive cost of such an undertaking. The consensus pointed toward UNIDO acting as a clearing-house for industrial information by a combination of using its own resources and referring inquirers to appropriate sources or retrieval services.

32. It was also proposed by some delegations that UNIDO might compile information in certain areas not covered by other bodies and closely linked to industrial plans and projects such as sources of industrial and in particular technological information from all over the world, feasibility studies, directories to suppliers of industrial equipment etc.

Recommendations

33. In recognition of the importance of making pertinent industrial information available, it was recommended that UNIDO, in co-operation with other international, regional and national agencies, give urgent consideration to the establishment of an international clearing-house for industrial information; this would locate sources of information or provide answers on specific enquiries.
34. Developing and advanced countries should join in the exchange of industrial information and continue to make every effort toward extending the facilities of their established documentation and information services to industrial users in developing countries.
35. Developing countries should make increased use of industrial extension services in the transfer of research results and other industrial information to productive application, and particular attention should, therefore, be given to the training of industrial extension personnel.
36. UNIDO should consider the feasibility of compiling in certain areas directly related to industrial development, and where such compilation is not being undertaken elsewhere, comprehensive documentation as a basis for information and advice on request. Examples of areas which might be covered by such a service would be: sources of industrial information, feasibility studies and directories for the supply of industrial equipment.

Agenda item 3 Policies and measures in developing countries

(g) Promotion of industrial exports and of export-oriented and import-substituting industries

1. The Committee had before it the documentation prepared by the United Nations Industrial Development Organization and, in addition, background documents prepared by Governments and international organizations.
2. The Committee discussed the following specific issues and problems:
  - (a) The need for an export-oriented pattern of industrialization;
  - (b) Means of export promotion and prospects with respect to some branches of industry;
  - (c) Examples of practical experience.
3. The importance of the export-orientation of industrial development in developing countries was illustrated by the fact that the share of the developing countries in world exports had decreased from 22 per cent in 1950 to 19.4 per cent in 1966. At the same time their percentage share in the world exports of manufactures was also declining while the total world exports in manufactures achieved a considerable increase during the period from 1950 to 1965. This trend, which is so disappointing for the developing countries, has been an issue of main concern at several international meetings during the last years. Some delegations stated that the situation was further aggravated by the fact that the sum total of economic assistance, which is an important factor in meeting trade deficits, had not increased in recent years.
4. In view of that situation, the importance of trade for the developing countries was generally recognized. However, it was felt that the existing export capacities, based mainly on exports of primary products, could hardly be expected to grow sufficiently to cover the need for capital imports and to service foreign debts at the same time. Additional productive capacities were therefore required which have to be geared to exports of manufactures or at least of higher processed raw materials.
5. Some delegations felt that there was not sufficient experience in the developing countries for embarking on the production of manufactures for exports in the initial stage of industrialization. Those countries should therefore pursue a policy of



important substitution which had the virtue of saving foreign exchange and at the same time would give them the opportunity to gain the necessary skills and experience in production and marketing. This would secure a higher probability of success in entering the highly competitive world markets as the goods produced might already have achieved a higher degree of competitiveness in respect of price and quality.

Contrary to that point of view, the opinion was expressed that an export industry, if it is to be successful on the world markets, had to make use of the advantages of economies of scale. For this the domestic markets of most of the developing countries were too small. Therefore, the pooling of resources of a group of developing countries was felt to be a pre-condition for the success of the establishment of export-oriented industries. This would automatically require giving up the idea of self-sufficiency in the development plan of each individual developing country and replacing it by the idea of economic interdependence between countries or groups of countries.

Other delegates considered that the setting up of export industries was conditioned not merely by the size of plants but equally by the fact that they offered clear advantages from the point of view of cost and price, either because labour and energy were cheaper or because of potential savings in transportation or because of an abundance of raw materials etc.

However, one delegate pointed out that small countries, by definition, suffer from a lack of natural resources and, therefore, that special measures must be taken in order to create export-oriented industries which are indispensable for their long-run economic survival.

Many delegations felt that one of the essential prerequisites for the promotion of exports of manufactures from developing countries was the removal of non-tariff barriers and a substantial reduction of tariff barriers. A few delegations were of the opinion that tariff barriers were not insurmountable obstacles to the successful promotion of exports of manufactures from developing countries. However, it was generally recognized that the International Symposium on Industrial Development was not the place where tariff problems should be dealt with since this was one of the main items on the agenda of the second United Nations Conference on Trade and Development. It was nevertheless felt by some delegations that, because of the overwhelming

importance of this issue, and particularly of a non-reciprocal system of preferences, the Symposium should endorse the views asking for a prompt and positive solution of this problem in favour of developing countries.

10. Although a substantial reduction of import restrictions in developed countries might improve the position of the developing countries, it was also considered essential that a number of measures be taken by the developing countries themselves if their exports of manufactures were to be significantly increased. It was pointed out that the markets of developed countries are very demanding and therefore that considerable efforts would have to be made on the side of the developing countries to take into account the market requirements concerning design, quality, standards, delivery dates, consumer habits, fashion trends, distribution systems etc.

11. Market research, analysis and studies were considered as essential for mass production. Although these activities are very costly, they are indispensable wherever export production is concerned, and if it is to be based on a systematic marketing approach in order to avoid miscalculations and losses. It was generally recognized that valuable services are provided in this respect to the developing countries by the International Trade Centre of GATT, which from next year will be operated on a joint basis by UNCTAD and GATT. This was noted with satisfaction.

#### Recommendations of the Committee

12. The Committee approved the following recommendations:

(1) Developing countries should:

- (a) Investigate the possibility of harmonizing and co-ordinating as far as possible the export-oriented industries in order to achieve a pooling of the markets and available investment resources through bilateral or multilateral arrangements, bearing in mind the necessity of economic interdependence between countries and regions;
- (b) Encourage the establishment of national export promotion councils acting as advisory service, clearing-houses for contacts etc. which would assist their potential exporters;
- (c) Attempt the setting up of complementary industries (the output of one being the input for the other) which may be of particular interest where necessary prerequisites exist in two or more countries in the region.

- (2) UNIDO, with UNCTAD and GATT and within the framework of the United Nations export promotion programme, should provide technical assistance aimed at establishing export-oriented industries in developing countries and at promoting industrial exports from developing countries. UNIDO's assistance should be especially provided in the following areas:
- (a) In identifying viable export industries, in setting up of such industries and dealing with general and technical aspects connected therewith, complementary to the activities of other international organizations and in co-operation with them;
  - (b) Studying the problems relating to the standardization, presentation and packaging of products;
  - (c) Co-operating in studies of the evolution of supply and demand of industrial products on international markets.
- (3) UNIDO should assist developing countries in finding potential investors for bankable projects submitted by governments.

Other recommendations submitted by a group of delegations

Developing countries recommended that developed countries should offer substantial facilities for the expansion of manufactured exports from developing countries:

- (a) By progressively reducing trade barriers against the manufactures of developing countries; particularly a general system of tariff preferences for the exports of manufactures from developing countries on a non-discriminatory and non-reciprocal basis should be negotiated as soon as possible;
- (b) By accepting payment of at least fifty per cent of the value of their exported machinery and equipment in the form of local manufactures of the developing countries;
- (c) By allowing for gradually giving up their activities in excessively labour-intensive industries for the benefit of developing countries.

Agenda item 3 Policies and measures in developing countries

(h) Small-scale industry

1. In the course of the discussion, some delegates raised the question of definition of small-scale industry. This varied considerably from one country to another, both as regards the values to be assigned to the criteria of the definition - employment and/or investment - and the inclusion of artisans, handicrafts and cottage industries. Some delegates felt that, in each country, the definition should serve to identify that part of the manufacturing sector which was in need of special measures of promotion and assistance. Others attached less importance to the question of definition; in their view, all industrial activities should be promoted regardless of size and artificial boundaries between industries should be avoided. There was a consensus that the scope for the development of industries of different types and sizes varied according to the natural and human resources of the country; the capital, foreign and national, available for investment; the size of the market and its prospects of development both at home and abroad; and other considerations, both economic and social. It was suggested that the basic policy might be to develop small industries side by side with larger industrial projects, and not instead of, or in preference to, large-scale or medium-sized industry. Since small-scale industries were in need of help in all aspects of their establishment, operation and management, the various measures of promotion and assistance should be part of an integrated development programme, which in turn, should be part of the over-all industrial development programme of the country.
2. Some delegates pointed out that the Government's promotion policies should be selective. They should not be aimed at giving rise to, or artificially maintaining, inefficient industries. The Government's role should be limited to the extent and time needed to help industries to stand on their own. The identification and selection of suitable small industrial projects was of the utmost importance. The role of feasibility and pre-investment studies and model schemes was stressed in this connexion. A number of delegates felt that the most important criterion in project selection was the availability of effective management and stressed the importance of management development in the promotion of small-scale industry.

3. It was recognized that a major element in small-industry development programmes was the provision of industrial extension services similar to those which have been successfully applied for the promotion and modernization of agriculture, and it was considered that efforts in the industrial extension sector should be intensified. Such services were aimed both at improving the operation and modernization of existing enterprises and at stimulating entrepreneurship in new industrial undertakings, a role of decisive importance in those countries where few or no modern small manufacturing establishments existed.
4. In the view of one delegate, there were often advantages in setting up, initially, industrial extension centres for specific industries and in expanding later on, their activities to cover other types of manufacturing. The same delegate suggested that, with the assistance of UNIDO, the regional economic commissions and UNDP, some of the existing national institutions providing training to extension officers might expand their activities for the benefit of trainees from a region or sub-region.
5. One delegate stressed that industrial extension centres should function in an advisory capacity and should not encroach on the managerial responsibilities of the entrepreneurs. It was recognized that the improvement of skills of entrepreneurs and workers of small-scale industries was one of their essential tasks. Such centres should avail themselves of any relevant research facilities existing within the country or abroad, especially those of technological institutes and universities.
6. One delegate stated that the difficulties of financing small-scale industries were due both to the general scarcity of national financial resources and to the relatively high risks of lending to small and weak enterprises. It was suggested that one of the means of overcoming the first obstacle was to channel resources from international and regional development banks to national financial agencies. It was also suggested that the second obstacle could be alleviated by linking technical assistance to financial assistance, especially in the form of supervised credit schemes. One delegate pointed out that the co-operation of commercial banks to the financing of small-scale industries could be ensured through credit guarantee schemes administered by the Government.

7. A number of delegates described the advantages of industrial estates and industrial areas as instruments for stimulating entrepreneurship and modernizing small-scale industries, facilitating industrial decentralization and regional development and regulating urban planning. Under certain conditions, industries of all types and sizes can be grouped on common sites, on which a variety of facilities and services - improved sites, "turn-key" projects, standard factories, common workshops and laboratories, industrial extension services, requisite additional training facilities etc. - can be effectively and economically provided. Such grouping of industries makes it possible to achieve economies in development and building costs, flexibility in land use, effectiveness in administration, and rational urban planning. It also facilitates inter-industry relations, especially in the form of sub-contracting between large and small undertakings.

8. It was suggested in the discussion that, in many developing countries, the promotion and counselling services of the Government could be usefully complemented by action undertaken by private agencies such as industrial associations, chambers of commerce and industry, co-operatives or groups of small producers, and by large industries engaged in sub-contracting with small-scale industries. Subject to appropriate safeguards, such action deserves assistance and support.

9. Some delegates noted with approval the projects being developed in Africa, Latin America and the Middle East for the establishment of regional and sub-regional centres for the development of small-scale industries. The purpose of such centres was to facilitate the adoption of co-ordinated policies and programmes and the establishment of industrial extension centres, industrial estates etc. in countries of the regions and sub-regions. They suggested that such centres, which could be extended to other regions and sub-regions, should be set up in close co-operation between the countries concerned, the regional economic commissions, UNIDO, UNDP, ILO and other organizations concerned within and outside the United Nations framework.

10. One delegate drew attention to the need to develop technologies appropriate for small-scale industries and recommended that research in this area be carried out by suitable institutions, including national and regional technological institutes and universities.

11. Some delegates considered that the difficulty of recruiting experts for a growing number of operations in the field of small-scale industry and industrial estates was one of the most serious problems in this area. They expressed interest in the training programme organized in co-operation with UNIDO for French experts and French-speaking experts of other countries, which provided for on-the-job training in French promotion and servicing institutions, and noted with approval the plans to expand this programme by including classroom training and fellowships for study tours of industrial estates, industrial extension centres and other facilities abroad. They suggested that similar programmes might be undertaken for English-speaking and Spanish-speaking experts in other industrial countries, since these were still the main source of expertise in this field. Experts from the developing countries might be given the opportunity of participating in these programmes.

12. Some delegates expressed their conviction that the co-operation of large industrial establishments in the advanced countries could be obtained both for seconding personnel and contributing to the financing of training programmes, since these establishments would, eventually, benefit themselves from the field experience gained by their staff. One representative suggested that certain types of operations calling for short-term assistance in countries at similar levels of development or faced with the same types of problems could be effectively carried out by assigning one expert to several countries which he would visit periodically or as often as required.

#### Recommendations

13. The Committee approved the following recommendations:

- (1) The Committee recommended that Governments should have recourse as they may judge appropriate to the UNDP for assistance in the establishment or strengthening of institutions for the promotion of, and assistance to, small-scale industries, such as special departments of industrial development corporations or banks, small industry service institutes, industrial extension agencies and industrial estates.
- (2) International financial organizations such as the World Bank and the Industrial Development Association and regional financial institutions such as the Inter-American Development Bank and the African and Asian Development Banks should be

- requested to review the possibility of increasing their support for financing industrial estates. They should also review the possibility of channeling funds towards national credit agencies for extending loans to small-scale industries.
- (3) Governments of requesting countries intending to establish or strengthen national credit agencies for small-scale industries, or to adopt supervised credit schemes, were recommended to have recourse as they might judge appropriate to technical assistance in these sectors also.
- (4) Within the framework of national priorities and situations, governments should consider requesting technical assistance:
- (a) To enable official industrial associations and official chambers of commerce and industry to provide extension services to small-scale industries;
  - (b) To facilitate the establishment of co-operatives and other groups of small producers for common programmes such as marketing, export promotion and other self-help schemes, and for the establishment of sub-contractors' exchanges.
- (5) Industrialized countries, in co-operation with UNIDO and other international institutions as appropriate, should review possible measures to increase the supply and improve the qualifications of experts in small-scale industry. These measures might include secondment of specialists by public agencies and large industries; organization of training programmes including study tours abroad; and increase in the number of associate experts.



REPORT OF COMMITTEE II

Agenda item 2 Situation, problems and prospects of main industrial sectors

(a) Iron and steel

1. The Chairman called attention to the issue paper (ID/CONF.1/A.4). There was general agreement with its contents, including the introductory statistics given therein. It was recognized that the steel industry in the advanced countries had been characterized in recent years by excess capacity and falling prices. One delegation observed that trade among steel producers of developed countries had risen so much that the drop of the participation of developing countries in total imports means very little and as a matter of fact in absolute terms imports by developing countries have increased substantially. Developing countries should start steel production whenever the combination of factors makes such development economic. It was pointed out that the development of the iron and steel industry was not only important in itself but also for the stimulus which it gave to the development of other industries such as engineering.

2. There was general agreement that the size of the markets of many developing countries is one of the most important factors inhibiting the establishment of the iron and steel industry. Three types of solutions to this problem were discussed:

- (a) The organization of sub-regional markets like those currently being contemplated in East and West Africa, in which multi-national co-operation is obtained by an equitable distribution of different industrial projects;
- (b) The addition of a further dimension to the markets by envisaging from the beginning an excess capacity for exports: this was suggested by one developing country which called attention to the advantage generally accruing to developing countries;
- (c) Through specialization of plants established in different countries, which would reduce the minimum market requirements and would permit complementarity through interchange of their specialized products.

In each of these cases, but especially in the last one, a considerable number of techno-economic studies were necessary for each specific case; and UNIDO might assist in this fruitful field of activity.

General observations

3. In connexion with the above problem, the possibility was discussed of producing steel ingots or semi-finished products in centralized larger-sized plants: final rolling operations should be carried out in market-based plants, within the country or in a neighbouring one. The view was expressed that such division of the operations might result in the loss of some efficiency. Consequently, the combined effect of the two factors should be carefully weighed.

4. It was indicated that the tying of the construction of a steel mill to the existence of indigenous raw materials is not always good policy. The objective of a steel industry is the production of quality products at reasonable prices. There are abundant examples in the world steel industry of plants operating successfully on raw materials which are wholly or partly imported. There were the particular examples of Italy and Japan. It was pointed out, however, that small developing countries could not always expect to procure iron and steel making raw materials on the same favourable terms as those obtained by these large advanced countries.

5. It was also indicated that steel production facilities in developing countries should not have a capacity which assumed that any surplus production could be easily sold in world export markets. At the present low prices ruling for steel in world markets (through surplus capacity in industrialized countries), this would be quite uneconomic. On the other hand, steel plants erected within the framework of a regional co-operation scheme and having an appropriate capacity for the requirements of their region were far more likely to prove economic.

6. Several delegations referred to the advantage, in small markets, of starting steel-making activities by stages; first, producing a few products for which there is a greater market and adding more products later, as well as integrating the

operations by steps. One of the most commonly practised procedures is to start with a semi-integrated scrap smelting and rolling mill producing mostly bars, light shapes and skelp. Scrap can be either of local origin or imported, if obtainable at reasonable prices. Another possibility that was mentioned was making flat products, starting from imported blooms, to roll and produce galvanized sheet, tinplate and sheet. There might be opportunities to buy second-hand equipment, in some cases complete mills which may be discarded by the original owners when undertaking expansion of capacity. The purchase of these mills may contribute to reducing the initial capital investment considerably. Obsolescent technology, however, should not be foisted on developing countries.

#### Choice of particular techniques

7. With reference to economies of scale in the steel industry, it was pointed out that the latest technological improvements in the industry, such as direct reduction processes, top blown oxygen converters and continuous casting, all tend to reduce the size of the minimum economic capacity. It was pointed out, however, that the selection of a direct reduction process must depend on the raw materials available, mainly fuel. There had to be a careful selection in view of the fact that not more than about ten of the over fifty processes available have been tried in practice. In this respect, the opinion was expressed that developing countries should endeavour to abstain from pioneering new processes. This was a risky exercise and should not be undertaken where capital is scarce or the plant is the only one in the country.
8. Concerning the position of the iron ore market, it was pointed out that further beneficiation of the ore at its origin into concentrate and pellets - either raw or partially reduced - may be the answer to the problems of some developing countries which export ore. On the other hand, it was pointed out that in the blast furnaces of advanced countries there is an increasing tendency to use self-fluxing burden and, until now, this has been done by using sinter, which has to be prepared in the vicinity of the blast furnace. Considerable mis-investment may result if developing countries engage in the construction of pellet or direct reduction plants without consideration of specific markets.

Information and advice

9. It was pointed out that in several developing countries, where studies for construction of steel mills have been completed, the current impediment was the lack of necessary capital. It was suggested that, in such cases, UNIDO might try to facilitate negotiations with international lending institutions.
10. At the various stages of planning, constructing and initiating operations of a steel mill, a considerable amount of transfer of technology is necessary, as well as training of personnel. It was suggested that UNIDO should assist in facilitating such transfer and training.
11. The role and status of indigenous design and project consultancy services were highlighted, particularly in relation to developing countries. It was suggested that effective use might be made of international consultancy services. UNIDO should provide maximum direct and promotional assistance. UNIDO should encourage developing countries to develop their own consultancy services to attain as much self-sufficiency as was possible in the prevalent circumstances. These project engineering and consultancy services should take into consideration the latest advances in iron and steel production technology including direct reduction, continuous casting etc. They should choose the optimum methods for a country's particular needs. UNIDO could assist in these studies. The subject of turn-key and package plants was recommended for examination vis-à-vis split contracts, which might make full use of indigenous machinery and equipment manufacturing potential in the country. These consultancy services should also formulate the over-all plans for the training of plant operators and supervisory management personnel. UNIDO could provide assistance in these fields. While the transfer of technical know-how could be speedy, the training of workers and skilled operators would take time and should be planned well in advance.

Recommendations

17. The Committee approved the following recommendations:

- (1) In connexion with specific projects, UNIDO should undertake and promote the appraisal of the potential for manufactures of iron and steel in different regions in collaboration, as required, with regional bodies.
- (2) It was recommended that UNIDO collect and disseminate information on research and development work, including pilot plants, feasibility and pre-investment appraisals.
- (3) UNIDO should assist in studies relating to consultancy and project engineering services for the establishment of steel plants in suitable developing regions and also collaborate in the development of national consultancy services for project engineering.
- (4) It was recommended that UNIDO, in co-operation with appropriate international organizations, should undertake studies on the international and inter-regional trade patterns of iron ore with a view to the planning of the industry's growth in developing countries.
- (5) UNIDO should assist developing countries, upon request, in formulating the choice of production technology for the iron and steel production related to appropriate product-mix.
- (6) UNIDO should assist in assessing capital availabilities as the requirements for the development of steel industries in the developing regions and assist in negotiations of developing countries with the international financial institutions.
- (7) It was recommended that where domestic markets limited the establishment and growth of the iron and steel industry, governments should explore the possibility of regional and inter-regional groupings to overcome these limitations.

- (8) In evaluating new steel plant ventures in developing countries, very careful consideration should be given to the experience in other developing countries. UNIDO could be of assistance in assembling and making available information from such experience.

Agenda item 2 Situation, problems and prospects of main industrial sectors

(b) Non-ferrous metals

1. After the subject was introduced by the Chairman, discussion covered a wide range of topics relating to the non-ferrous metals industry. Commenting on the introduction to the Issue Paper (ID/CONF.1/A.5), one delegate said that the statistical information given therein was difficult to compare with figures from other sources and that UNIDO would do industry a good service by assisting in the preparation of reliable and comparable statistics in order to avoid much of the guesswork in present planning.
2. With regard to the problem of substitution of one non-ferrous metal by another, or by plastics, it emerged from the discussion that there are several causes for substitution, such as the scarcity of one metal in a given country as against the easy availability of another, price differences and, in the case of almost all non-ferrous metals with the exception of aluminium, violent short-term price fluctuations which make industrial planning in many branches of industry extremely difficult. It was pointed out that UNCTAD was making efforts to establish a mechanism to stabilize the prices of some of the most important metals; several delegates mentioned that UNIDO should help in this endeavour as much as possible. The example was quoted of one large developing country in which replacement of copper by aluminium has gone a long way; information on the experience gained there was offered by UNIDO to assist other interested countries.
3. From the statements made by various delegates, it was evident that many developing countries were endowed with rich non-ferrous metals reserves, which they wished to exploit as far as possible through beneficiation, smelting, refining and ultimately fabricating the metal into end products. In deciding whether to exploit these reserves, developing countries should not restrict their consideration merely to the mining, with domestic or foreign capital, and export of non-ferrous ores with or without prior beneficiation. The delegation of a developed country expressed the

view that in some cases to mine only may be prejudicial to the exporting country and that UNIDO should study the effect on development of the various possibilities and degrees of utilization of this type of natural resource by developing countries. The delegation of a developed country pointed out that the processing of ores and non-ferrous metals involved a number of different stages. In the present state of technology, the early stages of processing often required a great deal of capital, and its amortization was highly uncertain in view of the outlook for prices. On the other hand, the stages of processing closest to final consumption could more easily be left to smaller undertakings; hence in a number of cases it might be to the advantage of certain developing countries to begin by importing semi-finished products and manufacturing finished articles to meet immediate domestic consumption requirements, and then to see whether technical and economic conditions made it feasible for them to consider at a later stage the production of intermediate semi-finished products. It was pointed out that private companies trading in international non-ferrous metal markets would not operate in a given country unless there was a prospect of adequate profits.

4. If, in a developing country producing non-ferrous metals, conditions are suitable for the production of semi-finished products from these metals, it was felt that foreign companies operating locally in this field should establish such industries in the developing country concerned in co-operation with local capital. It was felt that increases in international demand for these semi-finished products could be met in this way. It was suggested that UNIDO could assist in the preparation of studies to locate opportunities of this kind in developing countries.

5. The successful exploitation of natural resources and their processing, such as the conversion of bauxite to alumina and then to aluminium, is dependent on the availability of other factors such as cheap electric power. The world distribution of non-ferrous metals industries reflects the availability of all inputs as well as the structure of the international market for these metals. It was stressed that studies of the location for new non-ferrous metals industries should take all these



factors into account. Great stress was laid on the need for prudence in determining whether or not to construct processing plants in addition to mining. It was emphasized that a single raw material was not always in itself a sufficient base for beneficiation, smelting, refining, or fabricating operations: other factors such as availability of cheap power and transportation; the existence of an adequate market etc., must also be taken into consideration. In other words, the developing country should concentrate on economically viable production.

6. It was pointed out that the exploitation of non-ferrous mineral resources by developing countries could yield, in addition to direct returns, the indirect benefits of increased employment and tax income. It was suggested that technical assistance be given, among other countries, to Iran for the copper, lead and zinc industry, and to Malawi for the bauxite and aluminium industry.

7. Progressive processing in developing countries has many indirect beneficial effects due to the backward linkages of the industry. In the successive steps of elaboration of the resource from the ore to the end product, many problems appear, such as size of markets, know-how, training of personnel and financing. The necessity of studying each successive step carefully is apparent. Among the problems involved in semi-manufactures, probably the most serious is the size of markets, if the product does not have easy access to international markets. One delegate mentioned the case of a country producing non-ferrous metals raw materials which stimulated the internal market for final products by processing imported semi-finished products at the same time as it continued to export crude metal before undertaking itself the first transformation of the metal. Another possibility is to assure a market of sufficient size by organizing a common market or other types of multinational co-operation. Specifically, as regards non-ferrous metals, examples of such co-operation are the Aluminium Council for Asia and the Far East for aluminium, and the East African Project, in which Zambia will participate in manufacturing wire rods, oxygen-free copper and copper wire for the associated countries. In both cases there is ample need of co-operation from UNIDO to assist in the formulation and implementation of projects.

8. A considerable amount of research is necessary for exploiting non-ferrous metals resources, ranging from geological investigation of deposits to the selection of beneficiation, smelting and refining processes. Some delegations suggested that most of this research and development should be transferred from the developed countries to the country where the ore is found, as a means of strengthening the latter's capability. In view of the fact that in most cases the processes are well known and the purpose of the research is simply to select the process best adapted to the needs involved, one delegate suggested that UNIDO, in giving assistance to governments of developing countries, should make use of existing expertise in this field. The need for assistance in undertaking technical feasibility and economic studies was mentioned.

9. It was emphasized that full advantage should be taken of specialized technical consulting services available in advanced countries while at the same time stimulating their establishment and growth in developing countries.

10. The role of UNIDO, the IBRD and the regional development banks in providing financial and technical assistance was noted. It was considered that such assistance should be rendered to those non-ferrous metal projects which would make the greatest contribution to over-all national economic growth.

#### Recommendations

11. The following recommendations were approved:

##### I. General recommendations

- (1) That UNIDO co-operate with national and international bodies concerned with the preparation of statistics related to non-ferrous metals to produce data on a comparable basis, where appropriate.

- (2) That UNIDO should study the effect on industrial and over-all development of the progressive increase in the degree of domestic processing of non-ferrous raw materials produced in developing countries.
- (3) That UNIDO, in case assistance is requested by governments for the implementation of non-ferrous metals production programmes involving use of complex raw materials or processes, should make use of the best existing expertise in this field and assist if necessary in the establishment of pilot plants.
- (4) That UNIDO study the most appropriate methods of assisting countries producing non-ferrous metals raw materials to undertake or improve their own research into the more efficient utilization of these raw materials.

## II. Other recommendations

The following recommendations made at the Symposium are brought to the attention of governments, of the Industrial Development Board and of those international organizations concerned for their consideration, and for such action as they may deem appropriate. It is recognized that their implementation, on the part of UNIDO, would, in many cases, call for close co-operation with other United Nations bodies or might benefit from UNIDO co-operation where they fall within the competence of agencies other than UNIDO.

- (5) That UNIDO co-operate with UNCTAD and other appropriate organizations with a view to improving the conditions under which the principal non-ferrous metals (and products therefrom) are marketed, including price stabilization.
- (6) That UNIDO, in co-operation with other appropriate organs of the United Nations, assist the governments of the developing countries,

upon request, in the planning of the different phases of the industrial exploitation of their non-ferrous ore resources (including their evaluation).

- (7) That UNIDO be of assistance, upon request, in co-operation with UNCTAD, to governments in integrating groups of countries for co-operative market agreements on non-ferrous metals and help in the organization of appropriate production facilities and related studies.

Agenda item 2 Situation, problems and prospects of  
main industrial sectors

(c) Engineering industries

1. The discussion encompassed the issues raised in the secretariat document on Issues for Discussion (ID/CONF.1/A.6), other areas of interest to the delegates and a recital of the experiences and achievements of the reporting countries. There was unanimous agreement on the central and vital role that the engineering industry plays in industrialization.
2. The Committee called the vast field of engineering industries the measure of technical development. The degree of their presence in a country indicated the stage of development. The Committee considered the engineering industries as a basic element underlying the structure of all industry.
3. In this connexion, the key position of the metal-working industries was emphasized, the proper choice of machine tools being of greatest importance. They have to be in accord with the volume of the demand and the available local skills and materials. Used machinery was not desirable unless it would be able to produce on a competitive basis under local conditions and unless it was fully reconditioned. On the other hand, expensive numerically controlled machines might also not be uneconomic where lower-cost machinery could satisfy the need. Co-ordinated efforts were recommended in machine-tool and equipment manufacturing among companies participating in the industry. Here, more than in any other field of the engineering industries training of skilled and semi-skilled workers had great importance; a broad basis of skills must be created, and this would also attract capital. It was recommended that UNIDO study the pattern of production of machine tools in several of the less advanced countries, thus helping a machine-tool producing country to estimate its own short and long-term needs and to formulate its goals.

4. The electrical industry was called the driving force of industry. Attention was directed to the large investment needed to achieve distribution and utilization of electric power, exceeding the investment in power-generating plants by a ratio of five to one. For this reason, it was recommended that the feasibility of the manufacturing of distribution equipment (distribution transformers, cables, switchgear and motors) should be carefully examined by the developing countries with the assistance of UNIDO, taking a liberal approach towards progressive verticalization of manufacture. Regional co-operation was recommended for expanding the market of this industry.

5. The electronic industry was identified as one that offered greater opportunity for the less developed countries. The committee noted with satisfaction the example of one of the less developed countries which had succeeded in establishing a small but well-functioning and self-supporting radio industry. This was of extreme importance to the country involved since radio was the sole means of communicating important information and education to the predominately agricultural population. Other delegates pointed towards both the importance and the difficulties of the beginnings of the electronic industry and called for help from UNIDO and the industries of the developed countries in introducing sophisticated technologies and improvement of quality.

6. Maintenance and repair of transportation and agricultural equipment as well as of the already existing industrial plants was recognized as the first stage of mechanical industrial development. This would lead into the second phase of the production of spare parts, culminating in complete assemblies, preferably with a high percentage of domestically produced components. It was emphasized that the repair and maintenance of transportation equipment would lead to the skills to build and repair other equipment. The first two stages could be regarded as a transitory period in which valuable training could be acquired. Developing countries were cautioned not to go into the production of automobiles at too early a stage in their development because of the complexities of this industry and the need to produce large quantities and the necessity of an adequate infrastructure.

7. The Committee recognized that the building up of the engineering industries must be carried out with great caution and in harmony with the economic environment of the country. For this reason it was recommended that standardization begin at a very early stage. Strong emphasis was laid by the Committee on the assurance of an early achievement of good quality of products. It was shown that poor quality could impair the reputation of a country, make its products unacceptable in the international market and make it difficult to obtain financial assistance from abroad. In addition to an effective quality improvement programme, cost control was emphasized as essential. Past UNIDO activities in this field were discussed and it was recommended that quality improvement programmes be given continuing major attention.
8. The Committee emphasized strongly the problem of maintenance and repair and the manufacturing of spare parts. UNIDO was urged to give top priority to promoting capacity for repair and maintenance so that valuable equipment would not be underutilized because of breakdowns. UNIDO was urged to help set up pilot operations in this area and to concentrate its attention on repair and maintenance capacities. It was recommended further that unused industrial capacity be filled by subcontracting, even in foreign countries, as a way to achieve quality and efficiency.
9. The subject of engineering design and development as an essential part of all engineering industries brought several recommendations. Optimization of design was called so important that parallel efforts might sometimes be advisable for the best results. The fear was expressed that because of licensing obsolete designs might sometimes be received by the developing countries, and the need for establishing centralized design institutes in the developing countries was emphasized. On the other hand it was stated that sound design would most likely come from engineers that have experience in manufacturing and marketing as well. Transfer of design into manufacturing technology is as difficult as design and development if not more so. It was recommended that the less developed countries establish design capacity including tool design capability and engineering departments of their own in order to ensure that imported products functioned under varying local conditions and could be modified to meet requirements that might differ from those in the country of

manufacture. Developing countries which have an engineering industry may consider the need to establish their own engineering service in order to develop their own creative technology.

10. It was emphasized that the engineering industries would be facilitated by an infrastructure comprising roads, electric power, communication and access to materials in order to function adequately. UNIDO's role in co-ordination, promotion, advice and assistance was stressed in this connexion. It was recommended that the shutting in of the heavy industry in national patterns should be avoided. UNIDO's role in promotion of regional and international co-operation was mentioned.

#### Recommendations

11. The Committee approved the following recommendations:

- (1) UNIDO should study the pattern of production and demand of machine tools and associated equipment in several of the less advanced countries, thus helping machine tool producing countries to estimate their own short and long-term needs and formulate their goals.
- (2) The feasibility of manufacturing electric power distribution equipment (distribution transformers, cables, switchgear, motors) should be closely examined by the developing countries with the assistance of UNIDO, taking a liberal approach towards the increase of manufacturing in depth.
- (3) The industries of the developed countries should be encouraged to help the electronic industry of the less developed countries with the assistance of UNIDO to introduce more sophisticated technology and improvement of quality.
- (4) Standardization in the engineering industries should begin at a very early stage.
- (5) The developing countries should pay continuing attention to quality improvement programmes.



6. In collaboration with other interested specialized agencies of the United Nations, UNIDO should give top priority to promoting repair and maintenance, so that valuable equipment would not be under-utilized and should help to set up pilot operations in this area.
7. The less developed countries should have some engineering product and tool design capacity of their own to ensure the functioning of imported products under varying local conditions, with the assistance of UNIDO.
8. UNIDO was called upon to recognize the common problems of the engineering industries in developing countries, to acquaint those countries with these problems and to assist in their solution.

Agenda item 2 Situation, problems and prospects of  
main industrial sectors

(d) Basic chemicals and petrochemicals

1. The chemical industry has been widely recognized as the fastest growing industrial sector in the world today. The total value of chemical production per annum in developing countries had grown at rates of 13, 16 and 13 per cent respectively in Africa, Asia and Latin America, during the period 1960-1964. The United Nations had devoted an increasing number of regional and inter-regional symposia to specific technical and economic features of this industry<sup>1/</sup> and to technical assistance projects in the chemical sector in developing countries.
2. Mention was made in a number of statements of the experience that experts from industrialized countries had had in the planning, establishment and expansion of the chemical and petrochemical industries. Among other subjects, there was discussion of the exploitation of natural gas resources in deep strata in Africa and recent developments in the field of petrochemicals. It was also pointed out that the petrochemical industry was a capital-intensive industry, requiring a relatively large proportion of highly qualified personnel. In many instances, the industry had to function in close connexion with another sector of industry already highly developed. It was further stressed that marketing in the chemical industry was often different from the mere sale of products of other industries, since it must be undertaken with appropriate scientific technical service advice.
3. A number of developing countries mentioned their plans for major investments in the basic chemical and petrochemical sector over the next five years. One developing country in Asia is planning to invest some \$1.5 billion in the chemical and petrochemical industry in the next five-year period. Such investments focus attention on the problems encountered in the development of this sector in the developing countries. One developing country mentioned the increasing world shortage of sulphur

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<sup>1/</sup> The United Nations Inter-regional Conference on the Development of Petrochemical Industries in Developing Countries (Teheran, November 1964); the Seminar on the Development of the Chemical Industry in Latin America (Caracas, December 1964); the Asian Conference on Industrialization (Manila, December 1965); the Symposium on Industrial Development in Africa (Cairo, January 1966).

and the need for the development and improvement of alternative methods of production of sulphuric acid or its substitution by other inorganic acids: it was recommended that UNIDO and UNDP study this problem and assist in the establishment of appropriate demonstration plants in developing countries.

4. A problem of a similar nature, stressed by a number of developing countries, was the need for a detailed analytical study of the utilization of coal as a possible source of synthetic organic chemicals, particularly for those developing countries where coal may be abundant and petroleum and liquified natural gas would have to be imported as raw materials for their chemical industry.
5. Although basic organic chemicals were being produced to an increasing extent by petrochemical processes, in certain circumstances (e.g. when petroleum resources are non-existent or costly, or when cheap coal is used for the iron and steel industry or for the production of town gas) carbon chemical processes regarded as ancillary to these activities may be an economic proposition. Detailed economic and technical studies should be undertaken in such cases. The industrialized advanced countries, with wide practical experience of carbon chemicals, might make their experience available to the developing countries. It was recommended that the problem be reviewed by a group of UNIDO experts and their recommendations be applied under appropriate technical assistance programmes in developing countries where conditions are deemed suitable.
6. A problem, stressed by a number of participants from developing countries, was the competition between the synthetic and natural rubber industries. It was pointed out that natural rubber producing countries need UNIDO's assistance in developing or acquiring know-how in the transformation and modification of natural rubber into a variety of other chemical products, including improved rubbers and products derived from rubber, by using new chemical techniques. On the other hand, developing countries which do not produce natural rubber and are establishing petrochemical industries may benefit from UNIDO's assistance which could furnish them with all available information on the most up-to-date processes concerning the production of synthetic rubber.

7. In connexion with the effect of substituting synthetics for natural rubber on the economy of a number of developing countries, an appeal was made that major consumers take into account the social and economic importance of natural rubber to developing countries in their choice of use of rubber products. It was suggested that the problem of rubber might be carefully studied in consultation with the International Rubber Study Group.

8. The question of the administrative procedures of the United Nations Development Programme was raised by the representative of one developing country. It was stated that UNCTAD and UNCTAD have recognized these problems and had recently formulated tentative ad hoc procedures whereby technical consultants and engineering services could be made quickly available to developing countries under certain conditions. On the other hand, it was recommended that the recipient governments of developing countries ensure that all appropriate information available in their countries be evaluated, and appropriate conditions be created for the implementation of projects.

9. The representative of one developing country described the economic benefits resulting from the planned development of an integrated petrochemical complex in an under-developed part of the country with the assistance of the government. In this case the government provided the necessary legislative framework and maintained legislative procedures which assured the constant renovation and expansion of the chemical plant facilities. The industry was managed by the private sector but the government was instrumental in creating a favourable investment climate.

10. Another representative of a developing country pointed out that, in the experience of his country, the most rational development of the chemical industry was achieved by the creation of mixed public and private co-ordinating authority designed to give general economic and long-range policy direction to the industry, but leaving its day-to-day management and operations to the individual enterprises.

11. It was pointed out that the creation of a dynamic petrochemical industry might result in a reversal of the "brain-drain" for the developing countries, i.e. the creation of opportunities for highly trained and specialized nationals of developing countries in their own countries.

12. It was recommended by one developing country that UNIDO render assistance to the developing countries in seeking foreign participation in their petrochemical industries. This participation might not be only in the form of capital participation but also in arrangements for acquiring technological know-how and managerial skills, and for the utilization of the marketing and distribution facilities of foreign chemical companies already established in export markets.
13. Joint ventures with foreign companies were an important means of financing big chemical and petrochemical projects in developing countries as it is sometimes necessary to overcome the acute problem of lack of capital and know-how in these countries. It was hoped, therefore, that developed countries would urge their big chemical and petrochemical concerns to increase co-operation with developing countries in that direction and offer reasonable terms concerning minimum guaranteed profits, licence and royalty fees, sales commissions, salaries and wages of foreign personnel, and engineering fees.
14. Another delegate pointed out the benefits accruing from the regional development of a natural resource, for example, methane in Lake Kivu for Rwanda, the Democratic Republic of the Congo, Burundi and Uganda. In connexion with this example it was suggested that the four countries concerned could benefit from UNIDO's assistance in planning and development and utilization of the resource in the regions for power, fertilizers and various chemicals and from assistance in the exploitation of other resources (hematite ore in Uganda) by the application of new processing techniques using, *inter alia*, hydrocarbons. It was stressed by other delegates that projects of this type would require full utilization of the capabilities of the United Nations family, and it was recommended that close co-operation be established between UNIDO, FAO, ECA and other United Nations agencies, as required.
15. It was recommended that UNIDO, through its field advisory services and in co-operation with the regional economic commissions, review in depth potential industrial projects in the developing regions which could be sponsored by more than one country, and which could benefit from economies of scale and could command a regional market. The Asian Industrial Development Council was considering, for example, a project for promoting the regional utilization of natural gas supplied by one country in the region. Arrangements for the regional integration of the petrochemical

industry, it was stated, had recently been negotiated between six countries in South America. Plants for the production of some 22 chemical products would be established in various countries under multi-national ownership with guaranteed access to the combined market of all six countries. It was further pointed out that discussions were proceeding on the formulation of an institutional framework for the general industrial integration of the entire region. In this connexion, it was indicated by the representative of another developing country that regional co-operation would be particularly useful in the integration of production facilities and the sharing of markets in the fields of plastics (polyethylene, PVC and polystyrene) where developing countries can benefit from economies of scale and develop their petrochemical industries by forward integration. Another specific instance where UNIDO's assistance would be required was in encouraging regional arrangements for the utilization of by-products of the chemical industry, such as the disposal of excess chlorine in the production of caustic soda.

16. It was recommended that UNIDO give priority to promoting the development of specific branches of the chemical and petrochemical industries in developing countries which manufacture, in the main, products having either backward or forward linkages to agricultural production. In this connexion, it was pointed out that such priority development of the chemical industry would benefit not only agricultural production but also branches of other industries, such as the metallurgical industry, which could develop only after the establishment of some basic chemical products industries. Another aspect stressed was the use of chemical industry products in some branches of consumer industries which were already established in developing countries (edible oil, soap and detergents, and textiles).

17. It was recommended that UNIDO expand its activities in promoting the training of technical and managerial personnel for the chemical industries in developing countries and develop programmes jointly with organizations in the industrially advanced countries for "on-the-job" in-plant training. In this connexion, it was pointed out by a representative from a developing country that the training of technical personnel could be undertaken in some instances in a developing country which already had an advanced chemical industry. It was further recommended that UNIDO establish services which would disseminate technical and economic information on the

developments in the chemical and petrochemical industries to the developing countries and convene symposia devoted to the specific issues of basic chemicals, petrochemicals and fertilizers.

18. It was recommended that, with regard to the basic chemical and petrochemical industry in developing countries, UNIDO might render assistance in making arrangements for the transfer of technology from the advanced countries to the developing countries, without prejudice to any patent rights, and in facilitating arrangements for credits from bilateral or international sources.

19. It was recommended that UNIDO organize a system of information which would enable industrialized and developing countries to exchange information on their projects and possibilities, thus extending the information-exchange flow begun by the Industrial Promotion Service.

20. It was stressed that the chemical industry in a given country was at once an economic sector of the country concerned and a component of the world chemical industry. As a result, any development of the chemical industry should be the subject of thorough economic study beforehand and should be placed accurately in its regional and world context. In this connexion, it was suggested that symposia on the chemical industry in general or on its most important sectors (fertilizers, basic chemicals, plastics) should be organized to enable those responsible for development to compare and adjust their programmes.

21. The need to improve the collection, dissemination and exploitation of statistics concerning the chemical industries in the developing countries was stressed as a means of facilitating studies and the establishment of programmes. UNIDO had an important role to play in this respect, in close co-operation with bodies with experience in the matter, especially OECD and the regional economic commissions.

22. Lastly, with regard to the transfer of technological know-how, the importance of the dissemination of technical documentation, of various methods of personnel training at various levels, and of adequate protection of inventions by suitable legislation, was recognized.

### Recommendations

23. The Committee made the following recommendations:
- (1) UNIDO and UNDP should render assistance to the developing countries in establishing, where appropriate, demonstration plants utilizing improved or alternative methods of production of basic chemicals and petrochemicals.
  - (2) UNIDO should examine and make available to developing countries the studies on carbo-chemistry and, if appropriate in the light of this examination, convene a group of experts to examine cases where carbo-chemicals based on coal could well be valuable.
  - (3) UNIDO, in consultation with the International Rubber Study Group, should study the problems of the natural rubber and synthetic rubber industries and develop appropriate recommendations for technical assistance to both natural rubber producing countries and developing countries possessing petroleum and/or natural gas resources and desirous of developing a synthetic rubber industry.
  - (4) UNIDO should assist the developing countries, on request, in encouraging the participation of foreign companies in their petrochemical industries. Such assistance should be aimed at promoting arrangements for the sharing of technological know-how and managerial skills, and the utilization of marketing and distribution facilities of the foreign chemical companies which may already be established in the export markets.
  - (5) UNIDO, in co-operation with the Regional Economic Commissions, should render technical assistance in the establishment of regional industrial projects for the benefit of more than a single country in a developing region, profiting by the advantages accruing from economies of scale and larger regional markets.
  - (6) UNIDO should give priority of technical assistance to developing specific branches of the chemical and petrochemical industries in developing countries, linked to their agricultural production.



- (7) UNIDO, in co-operation with ILO, should expand its activities for the training of technical and managerial personnel for the chemical and petrochemical industries in developing countries, and where appropriate, promote in-plant training programmes both in industrially advanced countries and developing countries.
- (8) UNIDO should render assistance to the developing countries in the transfer of technology, without prejudice to patent rights, and assistance in facilitating arrangements for bilateral or international credit.
- (9) UNIDO should undertake to promote the dissemination of information to enable both developing countries and industrially advanced countries to exchange information on potential projects in the basic chemical and petrochemical industries and should also encourage the dissemination of technical and economic documentation of mutual interest to these countries with regard to these industry sectors.

Agenda item 2 Situation, problems and prospects of main industrial sectors

(e) Synthetic fertilizer industry

1. In view of the serious food situation in many developing countries, many delegates stated that the development of the fertilizer, pesticides and insecticides industries had become urgent and vital.
2. There was general agreement that in intensive agriculture, although many inputs are necessary, such as fertilizers, pesticides, better seeds, water and farm machinery, the most noteworthy results are to be achieved through the use of fertilizers. Others pointed out the importance of infra-structure (transportation and storage capacity), professional training, education of farmers and other prerequisites. Generally speaking, the use and production of fertilizers must be considered as essential factors in a comprehensive agricultural promotion plan.
3. Several delegates pointed out that, as stated in the United Nations Fertilizer Manual, the installation and operation of a fertilizer plant is perhaps the easiest part of the whole network. Marketing, efficient distribution, the organization of farmers' credit, and the education of the farmer for the rational use of fertilizers, present more complicated problems.
4. In this context, the need was stressed for thorough agro-economic feasibility studies to be made in advance before planning and implementing any project.
5. Many delegates felt that throughout the world there was a serious imbalance in regard to the production, availability and consumption of fertilizers as between the developing and the industrialized countries, and that the correction of this imbalance was perhaps the most urgent task for the developing countries to undertake in solving the food problem.
6. In view of the developing countries' shortage of foreign exchange and their real need for fertilizers over the medium term, it was clear that imports alone were not enough to correct the imbalance and that the countries in question must

set up and develop a fertilizer industry on their own soil, with the backing of the developed countries and with help from the international organizations.

7. Stress was laid on the need for regular, adequate data on the present and future consumption, production and capacity of fertilizer plants and the desirability for information to be made available on the measures taken to adjust production to requirements.

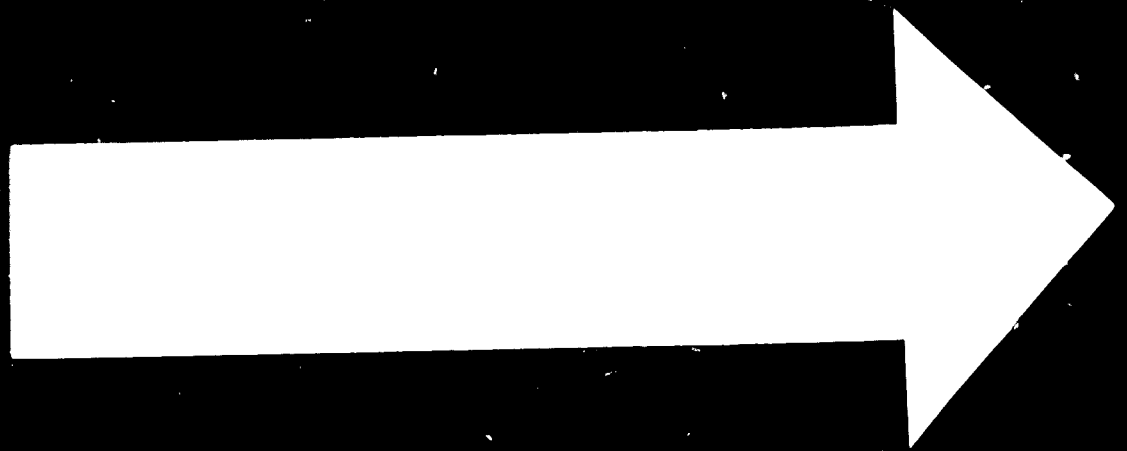
8. Some delegations supported the proposal that international financial organizations should treat projects for the construction of fertilizer plants as infrastructure investments and extend long-term capital for the purpose on a soft credit basis.

9. The necessity for effective co-operation and co-ordination between the various agencies of the United Nations family, especially between UNIDO and FAO, in studying the fertilizer sector and helping developing countries to promote the use of fertilizers and implement fertilizer projects was brought out during the discussions.

10. It was necessary, in so far as it had not already been done, to determine for any given country or region the most suitable types of fertilizers, bearing in mind the soil conditions and crops now grown or to be grown. The role of FAO in this area was well known; UNIDO should handle questions relating to the production of fertilizers, in close co-operation with the regional economic commissions.

11. The World Food Program in its turn might provide food for the workers during the construction and erection of fertilizer plants.

12. UNDP, with the co-operation of UNIDO, was at present considering many pilot projects in the fertilizer and pesticide sphere. Preliminary studies carried out by UNDP and UNIDO on the problem of the gradual backward integration in the fertilizer industry have shown that in an African country not possessing the raw materials required, an N-P-K plant could nevertheless be built at a reasonable cost. Many delegates stressed the importance of demonstration and pilot projects to be set up in certain areas of developing countries.



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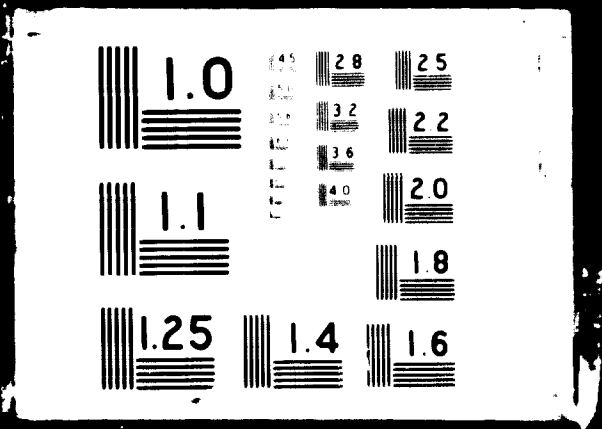
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13. As regards new technologies, one delegate pointed out that his country, which had started with plants for the electrolysis of water and for coal gasification, was now basing its output mainly on gas and petroleum products using the reforming process. Approximately 80 per cent of its production of 1.2 million tons of nitrogen was produced in this way.
14. With regard to end products, while many countries began by producing ammonium sulphate and superphosphate, the tendency now was to produce high-analysis products such as urea, triple superphosphate, diammonium phosphate and high-grade multi-nutrient fertilizers.
15. One delegate urged the importance of the economies of scale which could be made, e.g. if an ammonia plant with a capacity of 300 tons per day could be built for a given amount of capital, with an investment 1.8 times higher, an ammonia plant of 900 tons per day capacity could be built. The unit production cost of the latter plant was about 50-70 per cent of that of the former. The developing countries with rich gas and oil resources would do well to take full advantage of these resources and of economies of scale as indicated above. However, one delegation explained that owing to the incidence of land transport costs and the limitations of the regional market, construction of a small-scale plant could be an economic proposition so long as cheap raw materials were available.
16. On the question of the substitution of raw materials and manufacturing processes, the discussion brought out the need for adopting processes reducing or avoiding the use of sulphur. In view of the world shortage of sulphur and its high prices, alternative raw materials for the production of sulphuric acid, such as sulphur-containing ores, gypsum and anhydrites should be thoroughly investigated by developing countries. The use of ground rock phosphate directly in the soil, and the use of calcined phosphates, should likewise be investigated to determine their effectiveness. Processes using hydrochloric, nitric or carbonic acid for the extraction of  $P_2O_5$  instead of sulphuric acid seem also to indicate a solution.

17. Developing and developed countries must give high priority to the development of new sulphur resources, and especially for the recovery of sulphur from sour gases and petroleum products. It was proposed that a world study should be made of short and medium-term demand, supply and prices of sulphur.
18. Several delegates expressed great anxiety about under-utilization of existing capacity in developing countries. It was pointed out that this was due mainly to non-availability of sulphur, spare parts, suitable markets, and skilled personnel. Studies should be undertaken to determine the causes of this under-utilization of existing capacity and suggestions made for remedial measures.
19. Many delegates pointed out the importance of regional and inter-regional co-operation for the development of the fertilizer industry. As an example, it was stated that in the ECAFE region there are countries with large available resources of gas and oil but only small markets. Neighbouring countries have very large populations and market potentialities but do not possess cheap and abundant raw materials. Efforts were now being made to bring these countries together so that the former can develop a basic chemical and fertilizer industry and supply intermediate products like ammonia and phosphoric acid to the latter for conversion into fertilizers. One delegate expressed the view that since one ton of ammonia could be produced from one ton of hydrocarbons, and since transport and the storage of hydrocarbons was cheaper and easier, this solution might also be investigated, bearing in mind, however, the factor of economies of scale in ammonia plants.
20. A discussion took place regarding the production of organic fertilizers from city refuse and waste. The consensus was that such organic fertilizers could be of interest to city suburbs, but that the process was feasible only if the fertilizer was considered as a by-product in the removal and processing of city refuse.
21. Representatives drew attention to the importance of the manufacture and use of liquid fertilizers. According to some, the use of high-analysis liquid fertilizers

and anhydrous ammonia would enable farmers to obtain the fertilizer elements at the lowest cost. At the same time, since the use of liquid fertilizers implies storage and distribution arrangements, and special facilities for their use, it would be necessary to set up demonstration projects in this field in developing countries. Several areas of the underdeveloped world seem to be strategically suited for such pilot installations.

22. The discussions brought out the importance of the manufacture and use of pesticides to reduce food losses, and also of other auxiliary chemicals employed in agriculture such as growth-control agents. A demonstration project (DDT and BHC production) in a developing country was quoted as an instance of the interest displayed in the problem by UNDP and UNIDO. Reference was made to the irradiation of cereals as a means of preventing insect damage. Although this method had been approved and put into practice by one industrial country, the first pilot plant set up in a developing country had given rise to a number of problems to which solutions were being sought. The opinion was expressed that this method of cereal conservation had a promising future.

#### Recommendations

23. In summing up, the following recommendations were made:

- (1) In order to establish national development programmes for the fertilizer and pesticides industry, those responsible for these sectors at the national and international levels must possess up-to-date information about the world market and trends in the fertilizer industry. For this purpose, it is desirable that

UNIDO take action:

- (a) To improve and extend the collection, distribution and utilization of statistics concerning production and existing or planned productive capacity;



- (b) To organize an efficient system for the exchange of information between developing and developed countries concerning their respective needs and possibilities;
  - (c) To provide opportunities for those concerned with the development of these industries to meet at regional or world sectoral symposia to compare their programmes for possibilities of co-ordination.
- (2) In order to guide further developments in the fertilizer industry, UNIDO should endeavour to draw up a strategy on a world scale for the production and use of fertilizers based on the food and agricultural requirements in accordance with the recommendations made by FAO and WHO in this field.
- (3) In view of the magnitude of the capital investment required in the fertilizer industry and the consequent need to make the best possible use of available capital:
- (a) Thorough and exhaustive techno-economic studies should be carried out before any funds are invested. UNIDO, upon request, should assist in carrying out these studies as appropriate.
  - (b) Every advantage must be taken of economies of scale and all the pertinent conclusions must be drawn, especially in so far as regional co-operation is concerned. UNIDO, in co-operation with the relevant economic commissions, should assist and promote activities in this field.
  - (c) A high rate of utilization of productive capacity is desirable. A study should be made by UNIDO of the causes of the under-utilization which is too often a feature of developing countries, and of the means of correcting it.
  - (d) A study should be made by UNIDO of the causes of the wide differences in total capital costs of fertilizer projects between developed and developing countries.
  - (e) The World Bank and other appropriate international institutions should consider the possibility of treating the fertilizer industry, from the credit standpoint, as infrastructure on a par with irrigation projects, transportation projects etc. UNIDO should take follow-up action for the implementation of this recommendation with the World Bank.

- (4) Regional, and indeed inter-regional, co-operation is even more necessary in the fertilizer industry than elsewhere, and should be encouraged by all means. It is particularly feasible between countries producing intermediate products (ammonia, phosphoric acid, etc.) cheaply and countries which consume large quantities of fertilizers.
- (5) The role of mineral raw materials is decisive. It is therefore necessary:
  - (a) To continue and extend geological surveys of sulphurous material, phosphate rock and potash deposits;
  - (b) To follow closely movements on the sulphur market and make a careful study of the short and medium-term trends of that market;
  - (c) To study the economic possibilities of any techniques calculated to reduce the consumption of sulphur.

UNIDO should undertake, assist or promote these activities.

- (6) Equally important is the training of farm and factory workers and the task of accustoming them to the new products and methods. It is therefore desirable:
  - (a) To continue and expand training programmes;
  - (b) To install pilot plants and equipment, particularly for the production and application of liquid fertilizers, pesticides and formulation plants for pesticides and growth-control agents.

UNIDO, UNDP and other appropriate bodies should assist and promote such activities.

- (7) It is recognized that there may be many obstacles to the extension of the fertilizer and pesticides industry in developing countries - their customs and fiscal policies, lack of qualified staff, insufficient markets, inadequate infra-structures etc. UNIDO should co-operate with UNCTAD, GATT and other appropriate organizations for systematic studies of these obstacles.

- (8) In so far as the above-mentioned activities, studies and measures fall within the responsibility of international organizations:
- (a) It is essential that these bodies should work in close co-operation and co-ordinate their activities in accordance with their respective technical and regional spheres of competence. Since fertilizers are of importance to both agriculture and industry, it is particularly important that UNIDO's activities in regard to this industry and the industrial production of fertilizers should be conducted in full co-operation with FAO, UNDP and other appropriate international bodies.
  - (b) It is no less essential that full, effective and systematic use should be made of all projects and studies carried out at present or in the recent past so that the appropriate conclusions may be drawn and duplication avoided. UNIDO should consider this question and issue an annual "Digest" of all the papers issued, work carried out and developments in the fertilizer sector by all United Nations agencies and other international organizations.

Agenda item 2 Situation, problems and prospects of main industrial sectors

(f) Food-processing industries

1. The importance of establishing or improving food-processing industries in developing countries was generally accepted. It was stressed in particular that such industries might increase the export earnings of developing countries, and reduce the need for imports of processed foods. At the same time, an expansion of markets, through processing, would lead to the growth of agricultural production. In addition, food-processing industries might lead to nutritional benefits for the local population and serve as a basis for further industrial growth. It was accepted, however, that there was no magic formula for industrialization, and that each region, perhaps each country, although it could learn from the experience of others, would nevertheless have to face its own particular industrialization problems.
2. These problems included the need for a sufficient and continuous supply of good-quality, reasonably priced raw materials produced specifically for processing. Among the difficulties, delegates mentioned the fact that in many developing countries a large part of the crop is consumed by farmers themselves, so that insufficient surplus remains as a basis for a processing industry. In many regions also, there were considerable difficulties in transporting the raw material from the farm to the place of processing.
3. Many delegates stressed the particular problems of establishing food-processing plants. These included the lack of finance, trained manpower, technical know-how and research facilities in developing countries. In many cases it was felt that a solution to some of these problems should be sought on a regional basis. The problem of adjusting the products to the needs of the markets was also mentioned by delegates. Where processing was for local markets, the prime need was for a low-cost product which would compete with the local hand-produced foods,

and in this way be cheap enough for local consumers to buy. Where, however, the product was to be sold on export markets, it must often meet the requirements of international standards, and this might involve greater costs.

4. This dependence of food processing on the conditions of raw material supply and of distribution and marketing was generally recognised. Many delegates produced examples to show how the organisational difficulties of ensuring an efficient flow from farm to housewife had been overcome. These examples included the working of private companies, of producers' co-operatives for the collection, processing and distribution of the products, and of agro-industrial complexes. It was stressed that each country must choose that form of organisation which would best suit its economic, social and political requirements.
5. The particular type of processing operation would depend upon the conditions in the country or region. In this connexion, it was pointed out that a great problem was often the application and adaptation of existing processing methods to suit local conditions, and in many cases, waste resulted from inefficient drying and storage methods, which could be greatly improved by simple means. On the other hand, the necessity of research into new processing methods was stressed and delegates favoured the establishment of agricultural processing industries on a raw material basis, to ensure that each raw material was used to the fullest possible extent, including the production of new and improved products from by-products and offal.
6. In view of the chronic shortage of protein in many developing countries several delegates and special guests referred in detail to recent developments in the production of proteins and protein-enriched foods. It was also suggested that the order of priorities should be: improvement in the production, processing and marketing of existing protein foods, the development of new protein foods, and the synthesis of protein by micro-biological means.

7. Many examples were given of successful industrialization. Most delegates from developing countries mentioned several food products which they are now successfully producing either for local consumption or export markets, or both. In addition, delegates from several developed countries described successful projects which they had helped to establish in a number of developing countries. They stressed that the success of these and other projects, particularly where foreign capital was involved, depended greatly on maximum participation of local manpower and resources and a fair return to all, combined with the utmost frankness between local and external interests.
8. On the other hand, many delegates gave examples of the difficulties encountered in trying to establish food-processing industries in developing countries, and many references were made to the way in which UNIDO and other international organizations could help solve these problems.
9. While recognizing the important part that UNIDO should play in this field, delegates emphasized that there should be the fullest co-operation with existing international organizations who are already working on food processing, particularly FAO, in order to avoid duplication and overlapping.
10. In view of the importance of the food-processing industry to the economies of developing countries, many delegates affirmed their country's willingness to support the efforts of the developing countries to establish or expand such industries by contributing information, know-how, technical assistance, capital and financial aid, either directly or through UNIDO and other international agencies.

Recommendations

11. The Committee approved the following recommendations:
- (1) That increased attention be given to the problems of establishing food processing industries in developing countries in view of the importance of such industries to the economy, social structure, and nutritional level of these countries;
  - (2) That more information be systematically disseminated about food processing, including, where feasible, model projects for various food processing industries which would show:
    - (a) The most economic equipment layout; and
    - (b) For each type of equipment, its specifications, costs and supplying companies;
  - (3) That developing countries be assisted in finding the right type of food-processing equipment to suit their individual market requirements;
  - (4) That feasibility studies be undertaken for the establishment of various food-processing industries in several countries and regions;
  - (5) That assistance be given upon request to help developing countries establish training and technical institutes for food processing;
  - (6) That UNIDO, in response to requests from developing countries with the necessary marketing, industrial, agricultural and other economic conditions that favour additional processed food production through agro-industrial complexes, should provide assistance in establishing and implementing such projects in co-operation with other international organisations, in particular FAO, as appropriate.

Agenda item 2 Situation, problems and prospects of main industrial sectors

(g) Textiles

1. The Committee had before it the following documents:
  - (1) ID/CONF.1/A.10 (Issues for Discussion)
  - (2) ID/CONF.1/21 (Textile Industries; Sectoral Studies prepared for the Symposium)
  - (3) ID/CONF.1/B.59 (Textile Industry in Greece)
  - (4) ID/CONF.1/17 (Industries Processing Agricultural Commodities other than food).

The discussion centered around the main issues raised in the Secretariat paper (ID/CONF.1/A.10) and other areas of interest to the delegates. References were made to experiences and achievements of the reporting countries in the field.

2. The different and sometimes conflicting views expressed during the discussion reflect the apparently different problems facing the textile industry in the following four categories of countries:

- (a) Developing countries in the process of establishing a new textile industry to substitute imports and to utilize domestic resources, labour and raw materials;
- (b) Developing countries with an existing but obsolete textile industry, requiring modernization and reorganization aiming at lower production costs and prices and an expanding demand, primarily on the domestic market;
- (c) Developing countries which already supply the domestic market and which could enter foreign markets if access could be facilitated and if production for export could be designed to meet the specialized requirements of these foreign markets;
- (d) Industrialized countries with high per capita consumption of textiles, a specialized market and a high wage level.

3. The opinion was expressed that while the textile industry was rapidly moving towards higher capital intensiveness, it still employs - particularly on the conventional technological levels - more labour per unit of output than many other industries and that this labour force can relatively easily be trained. These



facts, combined with local availability of raw material and the relatively small economic plant sizes that characterize the industry often make the textile industry seem an attractive starting point for industrialization in countries of the first category mentioned above.

4. With reference to the apparent ease of training of the labour force, it was stressed, however, that appropriate training must be provided for at all levels including management, and in this connexion it was suggested that UNIDO together with regional economic commissions should survey existing training institutions for textiles and make recommendations regarding their strengthening and expansion. An experience was cited which clearly illustrated that modern equipment alone does not ensure satisfactory productivity if there is maladjustment between the degree of machinery sophistication and the calibre of the labour and management.
5. It was also recommended that UNIDO and other agencies working in this field finance training institutions on a regional, sub-regional or national basis. The possibility of combining teaching and training with research and advisory services should also be explored.
6. It was recognized that the prerequisites of available labour, capital, raw material and a domestic market are not solely sufficient for a successful development of the textile industry. It was also pointed out that world productive capacity at present exceeds the demand and that developing countries should bear this in mind when considering the establishment of a new textile industry. The infant industry may not be able to compete with cheap imports from other developing areas which already possess an efficient textile industry and fiscal protective measures may have to be employed to support the industry. This protection, however, if it leads to higher prices, may ultimately result in a contracting market. Neither is it always advisable to encourage large-scale capital flow into the industry by means of tax incentives and tariff protection in the hope that the over-capacity thus created would automatically result in successful export of the goods or in price competition and bring about failure of the least efficient enterprises.

There is usually not room for this kind of competition in developing countries because they can afford neither the consequential loss of capital, nor the unemployment of a specialist labour force. An example of the development of the textile industry was cited in which the industry was obliged to operate at high levels of efficiency as a result of reduced level of protection. This facilitated the substitution of imports and made it possible for the industry to compete in the world market. It was felt that UNIDO should study this experience with a view of its applicability to other countries.

7. When discussing the available technological levels and the selection of equipment it was mentioned that the use of second-hand equipment could seldom be justified and could not be advocated generally. While its use in individual cases might be feasible, purchase of such equipment required careful examination and safeguards for the purchaser. With reference to the interchangeability of spare parts and components of textile machinery it was suggested by one delegate that the possibility of introducing international standards in this field be examined. The choice between conventional modern and ultra-modern automated equipment depended on the cost and availability of capital and labour respectively and the availability of technical knowledge. The fact that spinning in tropical climates often necessitated costly air-conditioning installations should also be borne in mind. It was stressed that capital-consuming automatic devices should not be employed if they resulted only in unjustified savings in labour force without contributing to an improvement in product quality or reduction of costs. Furthermore, in developing countries with relatively high capital and low labour costs, the increased capital charges might not necessarily be offset by savings in the cost of labour as in the case of the industrialized countries. In this connexion, the need to bear in mind the economic and social objectives of the developing countries was stressed. The possibly conflicting needs to increase the standard of living and to provide additional employment as well as the import substitution effect are elements which should be considered together with those related to profitability. With regard to the question of provision of employment attention was drawn by one delegate to the labour intensiveness of the garment industry.

8. The importance of economies of scale was emphasized. The optimum size for a cotton textile mill might be found in particular cases, as was recently shown in studies conducted by the United Nations Economic Commission for Latin America. It was pointed out that an increase in size beyond that optimum unit would not result in further economies of scale but would on the contrary, lead to diminishing returns owing to problems of management, supply, maintenance etc. Such an increase in size would also increase the financial risk attached to business decisions and would, in a small domestic market, lead to restrictive business practices. UNIDO was expected to assist in providing guidelines in specific cases regarding the appropriate plant sizes for the types of products contemplated.
9. Attention was drawn to the importance of using raw materials that fully correspond to the types of products to be manufactured. UNIDO was asked to assist in selecting appropriate raw materials for the types of products to be manufactured. It was also considered important for the developing countries to bear in mind the world-wide trend of increasing usage of man-made fibres. The production of those fibres involved distinct economies of scale, and the minimum economic size might well be too large to justify production in most developing countries unless the production is planned to meet the requirements of several countries in the region. Regional co-operation should, therefore, be encouraged and it was recommended that UNIDO in collaboration with regional economic commissions conduct feasibility studies in this field.
10. The trend towards increasing the substitution of synthetics for certain natural fibres - in particular hard fibres for technical end-uses - was stressed by one delegate. He referred to the serious social consequences of a decline in the production and processing of such natural fibres and recommended that UNIDO give attention to this problem in co-operation with the various international agencies.
11. The possibility of programming the world textile production aiming at a rational specialisation was discussed and it was felt that up-to-date information and forecasts on the expansion of production capacity were needed. The question of

increasing exports of textiles from developing countries to industrialized countries was discussed. During the debate on this point the divergent positions of the industrialized countries and the developing countries in the light of present world production over-capacity became evident. The question was raised to what extent the developing countries could expect to count on an increasing share of the market in industrialized countries. However, it was considered that this problem should be examined in more depth by the appropriate international organs such as UNCTAD and GATT. Nevertheless, UNIDO could assist governments in developing specialized lines of production for export which would complement those of the importing countries. It was observed that there is a substantial flow of trade among the industrialized countries of Western Europe, reflecting to a certain degree a trend that may be extended to include developing countries as well.

12. It was felt that efforts to achieve complete self-sufficiency for all types of textile products would not be recommendable on economic grounds. It was envisaged that industrialized countries could specialize in the production of higher priced goods and import some of the simpler types - as already is the case in certain countries.

13. Referring to previous United Nations studies on the subject, it was recommended that a modernization programme of the textile industry should be part of an over-all investment policy which considered not only the installation of new equipment but also the destruction of old equipment and the re-organization of the industry, taking into account the need for national production programmes, adequate sizes of plants and efficient management. Such a programme should be undertaken at a national level, and it should also take into account regional co-operation. The possibility of joint ventures was also mentioned in this context. It was felt that UNIDO could usefully assist governments of developing countries at the operational level, in the programming of the development or re-organization of the textile industry and in the establishment of policy guidelines bearing in mind criteria designed to make the most rational use of available resources, such as labour, capital and raw materials. In this connexion existing studies regarding the textile industry (such

as for instance those prepared by ECLA for the Latin American countries) should be taken into account, to provide a starting point for concrete action on specific problems.

14. To co-ordinate the actions by government and private industry in their efforts to increase the productivity of the textile industry, the establishment of national textile development councils or similar bodies with representation of all interested parties might be considered. The function of these bodies should be to collect and disseminate statistical information on production, productivity, sales, trade and prices, and to establish production and quality standards and specifications. They would also prepare forecasts of market requirements and trade trends and work out long-term plans for the development of the textile industry.

#### Recommendations

15. The Committee made the following recommendations to UNIDO and, where appropriate, to other international organizations:
- (1) To survey, upon request and in co-operation with the regional economic commissions, the existing training and research facilities for textiles with a view to increasing the effectiveness of present institutions and, in collaboration with other agencies such as ILO, promote the establishment of such institutions on a regional, sub-regional, or national basis.
  - (2) To assist in advising on adequate plant sizes and characteristics for the types of products to be manufactured and in selection of appropriate raw materials and machinery.
  - (3) To undertake feasibility studies for the production of man-made fibres, with particular reference to the availability of basic raw materials required, and its influence on the production of natural fibres.

- (4) To study certain special aspects of the textile industry, e.g. printing, with special reference to small runs, utilization of waste, and, in co-operation with other agencies, the possibility of introducing international standards in textile machinery components and spare parts with a view to their interchangeability, and the problems of the hard fibre industry, especially those arising from the substitution of natural fibres by synthetics.
- (5) To assist governments upon request in the programming of the development or re-organization of the textile industry.
- (6) To undertake studies on the textile industry based on the latest available data and forecasts of expansion of production capacity both in industrialised and developing countries.
- (7) To draw again the attention of UNCTAD and GATT to the question of access to world markets for the textile products of the developing countries, taking into account the situation of those developing countries which are less advanced in the development of their textile industry.

Agenda item 2 Situation, problems and prospects of  
main industrial sectors

(h) Building material and wood products

Building materials, including wood products

1. In introducing the discussion, the Chairman drew attention to the wide range of building materials industries. It was suggested that the discussion concentrate on non-metallic minerals and wood products and other inputs not previously discussed under other items.
2. It was felt generally that the problems and policies relating to the development of the building materials and components industries had been well stated in the issue paper under discussion (ID/CONF.1/A.11). Several delegations expressed their support for the recommendations made in this paper and stressed the urgent need for action to increase the efficiency and output of the building materials and components sector. The rational production of building materials and components, using locally available raw materials and waste products to the maximum extent, was recognised as a pre-requisite for meeting the enormous demands for construction works of all kinds prevailing in developing countries. The representatives of the ECA and the UNDP remarked that governments had not hitherto given a higher priority to the field of building materials and components in their requests for technical assistance. Assistance in this field would be particularly valuable. It offered important possibilities for economic and social development as well as of achieving savings of scarce foreign exchange.
3. Although several examples were given of the successful use of locally available raw materials, it was strongly felt that the opportunities in this respect had been far from exhausted. It was pointed out by several delegations that recently developed techniques of processing and preserving local raw materials offered new possibilities of producing building materials and components of improved quality and durability. The dissemination of accurate information on these new technologies should be made more effective and further research should be encouraged. Delegations expressed their concern about the lack of surveys of natural resources suitable to serve as a basis for expanded production of building materials. It was

stressed that such surveys provided a necessary background for the preparation of long-term plans for the development of the building materials and components industries. On the other hand, it was realized that long-term plans and forecasts of needs were not alone sufficient for determining investments in new factories. Feasibility studies must be carried out for each specific project, otherwise misinvestments, high production costs and idle capacity of installed machinery could result. Several developed countries expressed their willingness in co-operating with developing countries in the carrying out of pre-investment surveys and market studies. In this connexion, it was suggested that each country study carefully its own sources of raw materials rather than rely uncritically on building materials of foreign origin. It was also noted that direct cost comparisons between various materials could be misleading without taking into account durability and other requirements.

4. It was stressed by several delegations that one of the major reasons for the retarded development of the building materials and components sector was the lack or weakness of the institutions required to support their industries in the developing countries. One delegation noted that, in his country, it had proved necessary to establish a specialized Ministry for the development of the building materials and construction industries. Several representatives pointed out the need for setting up centres or institutes, partly or entirely financed by governments, to deal with testing and quality control, research, dissemination of information and standardisation. The importance of using uniform measurements and quality standards was emphasized. In this connexion, attention was drawn to the recommendations issued by the International Council for Building Research, Studies and Documentation (International Modular Group), and by the International Organization for Standardisation. One delegation suggested a world-wide consultation on the problems of standardisation of building materials and components.

5. It was suggested that special attention should be paid by governments and by the industries concerned to the organization of suitable education and training of skilled personnel. The need for operatives skilled in the maintenance of machinery and equipment and in the management of factories was particularly singled out.



Education and training centres should be set up, where appropriate, based on regional co-operation. UNIDO should play an important role in helping to establish such centres. One delegation particularly emphasized that local languages be used in these centres.

6. The issue of prefabrication of building components in developing countries was raised by some delegates. In the opinion of one delegate, prefabrication had been introduced in industrial countries as a means of reducing labour requirements and would thus not be justified or advisable in countries facing serious unemployment or under-employment. Other delegations pointed out that prefabrication methods could thus substantially help to diminish the requirements of skilled labourers. Prefabrication methods would help to speed up the building production process in general. One delegation proposed that UNIDO should provide assistance and disseminate information on prefabrication methods suitable for the conditions prevailing in developing countries.

7. In connexion with a discussion of suitable policies aimed at increasing the capacity and efficiency in building materials and components production, one delegate drew attention to the importance of the modernisation of existing factories, the organisation of maintenance and of taking measures to ensure the full use of already installed capacity.

8. Several delegations also stressed the necessity of developing transport facilities as a major means of reducing on-site costs of building materials and components and facilitating regional co-operation and international trade. As regards regional co-operation, however, it was stressed by one delegate that such co-operation could only be achieved if a positive attitude were taken by the governments concerned. The regional economic commissions could play an important role in promoting a better understanding of the importance and economic advantages of regional co-operation, specialisation and sharing of potential markets for building materials and components.

9. As regards the development prospects for specific building materials, there was a consensus that the demand for cement would continue to increase very considerably in the future. It was stated that the establishment of further plants for the production of cement should therefore be encouraged, in particular in countries or

regions where the price of imported cement is at present high, mainly due to transport cost. As regards the economic advantages of large-scale in the production of cement, it was stressed by several speakers that, although these advantages were considerable, modern machinery is now available for comparatively modest capacities which enables the economic production of cement for domestic markets of comparatively small size. One cement expert expressed his views concerning the feasibility of even smaller scale cement plants. One speaker drew attention to the special difficulties arising in connexion with production and use of concrete in hot climates. He recommended that UNIDO collect experience and information relating to this problem for dissemination to countries concerned, even by the establishment of appropriate research facilities of regional character.

10. There was a comprehensive discussion on the possibilities of using timber, and wood-based products for the purpose of building and construction. It was generally agreed that these products should be considered as basic inputs for the construction industry and that there was a wide range of so far unutilized possibilities. These products offered favourable opportunities for satisfying domestic needs and held out prospects for exports, although a severe competition would be faced. It was pointed out that a number of species, which had not so far been used for commercial purposes, could serve as raw materials for the production of sheet materials for construction. Recent research and development in this field has opened up new possibilities, information on which should be widely disseminated. One delegation drew attention to the possibilities of the establishment of multi-purpose board plants under limited market conditions. It was also indicated that developing countries intent on expansion of their forest products industries should start from an uncomplicated base by manufacturing and selling relatively simple products. Some delegates suggested that more significance be given to wood products as building materials than indicated in para. 55 of document ID/CONF.1/23. One delegation suggested studies on the effects of increasing land prices on construction activities.

11. One delegate suggested that a small special working group be set up to develop a programme of action for the establishment of pilot and demonstration plants based on the use of local raw materials.

Recommendations

12. The Committee made the following recommendations:
- (1) Developing countries should, where appropriate, give higher priority to the development of the building materials industries in order to achieve greater efficiency in their construction activities, better utilization of local raw material resources and savings in foreign currency.
  - (2) UNIDO, on request, should assist in drawing up national and regional long-term programmes for the production of building materials having regard to plans for their construction industries and surveys of their relevant natural resources.
  - (3) UNIDO, on request and in co-operation with other organisations, should promote studies and collect and distribute information on the economics and production techniques of competitive building materials, having regard to the function and durability of the constructions.
  - (4) UNIDO, on request and in co-operation with other organisations, should assist in the development of production techniques based on the use of local raw materials, including agricultural and industrial waste products, by promoting the establishment of pilot and demonstration plants in different regions and by other measures.
  - (5) UNIDO should assist in the establishment of testing and training centres for a more efficient use of traditional and modern building materials and the setting up of research facilities to promote the application of modern production techniques to specific climatic conditions (as, for example, in concrete products handled in large quantities).
  - (6) UNIDO should examine the feasibility of smaller scale local cement plants having regard to high transport costs for imported cement.
  - (7) UNIDO was asked to promote the implementation of projects based upon pre-investment studies already available either on regional or national bases.
  - (8) UNIDO, in co-operation with other bodies, should assist in the development of co-ordinated systems of standards relating to the dimensions and properties of building materials and components as well as to methods of testing and quality control.

Agenda item 2 Situation, problems and prospects of  
main industrial sectors

(i) Construction industry

1. The discussion encompassed the issues raised in the Secretariat document (ID/CONF.1/A.12), and other areas of interest to the delegations. Several speakers also made reference to the study prepared for the Symposium by the United Nations Centre for Housing, Building and Planning (ID/CONF.1/24).
2. There was unanimous agreement on the central and vital role that the construction industry plays in industrial development. It was pointed out that, since more than half of the investments in virtually all countries are made in construction, even small improvements in skill and efficiency produced a considerable leverage effect in increasing economic growth.
3. The problems, difficulties and results of direct government participation in low-cost housing projects was discussed by many delegations. It was pointed out that there was great need for this kind of construction and it offered especially favourable possibilities for adopting mass-production techniques. The improvement of the housing situation on a wide scale was a primary target of a country's social policy and helped to achieve stability and higher productivity of the manpower employed in the whole industry.
4. Regarding the close links between the construction industry and other branches of the economy, it was emphasized that the construction industry's capacity to absorb inputs from other industries was increasing and diversifying along with general economic development and improving living standards. It was pointed out that a determined government policy to achieve co-ordination and continuity in the services related to the construction industry, combined with effective planning, were means for achieving lower costs and higher efficiency in the construction industry. Moreover, long-term plans of construction activities were essential as a basis for the development of the building materials and components sector.
5. The relative merits of various kinds of building materials were discussed with the general agreement that locally available materials should be utilized where possible. In this regard, the problems of standards and quality control were considered as a vital aspect of the construction industry and were deserving of detailed

regional and local study. As regards wood as building material, one delegation pointed out that extensive use of wood for permanent structures was not advisable in view of the fire hazard. Other delegations did not share this opinion, drawing attention to the modern techniques available to make wood fire-resistant, although recognizing the considerable additional costs of such techniques. They further stated that the fire hazard had not been regarded as an obstacle to the use of wooden structures in many of the most highly industrialized countries.

6. Some delegations held the view that industrialisation of the construction industry should be achieved in stages, along the lines outlined in paragraph 32 of document ID/CONF.1/24, i.e. by improving handicraft methods; rationalisation of manual operations, supplemented by on-site prefabrication using traditional materials and simple assembly methods and equipment; increasing use of factory-made building components, mainly based on reinforced concrete; the extensive use of factory-made building components of a great variety of origins, including light metals and plastics.

7. Other delegations pointed out that the extensive use of prefabricated building components produced on site or, where appropriate, in factories was advisable since such a policy would considerably shorten the time of implementation of individual projects. The utilization of low-skilled (more easily trained) labour, in the absence of higher-skilled site labourers was noted as an incentive to prefabrication. Problems of transport, quality control and design were discussed in this regard.

8. As regards the use of mechanical equipment and advanced technology in construction, it was emphasized that no general recommendation could be made. It was also noted by one delegate that no radical change in the structure and general characteristics of the construction industry could be implemented in a very short time.

9. The subject of manpower brought several recommendations. It was emphasized that on-the-job training by the established apprentice method brought excellent results. The closely related and complementary vocational (or trade) school system was strongly recommended to provide semi-skilled and middle level professional personnel rapidly and effectively. The need of training in safety measures was emphasized having regard to the high rate of accidents in the construction industry.

It was pointed out that the utilization of experienced foreign firms for highway, utility, port, and similar building projects, would, in addition to efficient completion of such a project, provide as a by-product opportunities for upgrading local skills and techniques for subsequent application to other local construction projects.

10. The need for national standards was emphasized by many delegations regarding the qualities and basic dimensions of building materials and components, performance specifications, tender documents etc. One delegation noted that the use of the time-tested contract document, prepared by the Fédération Internationale des Ingénieurs-Conseils (F.I.D.I.C.) jointly with the Fédération Internationale du Bâtiment et des Travaux Publics (F.I.B.T.P.), improved efficiency and performance and provided an important basis for standardization. The working out of type designs for recurrent projects by qualified institutes and private firms was also mentioned as a means of rationalizing construction. It was proposed by one delegate that national bureaux should be set up by governments to ensure adequate progress in the fields of standardization and type design. One delegation pointed out that, since work in this field was costly and time-consuming, sharing of experiences between developing countries and assistance and advice from UNIDO would be highly desirable and useful. One delegation presented elaborated ideas on how to educate and organize complex teams to develop type designs to meet specific conditions.

11. Some delegations stressed the need for more research and development work regarding the construction industry. It was emphasized particularly that more research should be made on the input requirements for construction work under different conditions of climate and living standards and having regard to local supplies of raw materials. One delegation proposed that governments should establish and make available to interested parties cost standards for various types of construction works.

#### Recommendations

12. The Committee recommended that:

1. Construction, especially as part of public investment (dams, roads, irrigation schemes, large industrial and residential projects) should be the subject of planning in respect of both demand and supply within the framework of the economic plans of the developing country.

- (2) UNIDO, in co-operation with other international organizations, should advise developing countries regarding the organizational, administrative and contractual set-up in their construction industries in order to improve performance and efficiency and to promote standardization.
- (3) UNIDO should, on request, assist developing countries in the establishment of design organizations, in setting up working groups to promote designing activities in accordance with local conditions.
- (4) In all fields of construction activities UNIDO should promote the exchange of experience between the developed and developing countries and among developing countries themselves in order to avoid duplication of effort.
- (5) UNIDO should assist in the establishment of institutes responsible for collecting, evaluating and disseminating technical information, and as required supplementing compiled information with research. These institutes should also draft bylaws and regulations valid, as far as possible, for the country as a whole, and prepare standards for performance specifications, tender documents and contractual procedures.
- (6) UNIDO should collect and disseminate information as well as promote studies on the economics of competitive building methods, in particular prefabrication methods suitable for use under the conditions prevailing in developing countries.
- (7) UNIDO, in co-operation with FAO and other appropriate United Nations bodies, should organize a study group to evaluate the role of wood-based products as building materials under the specific conditions prevailing in developing countries.
- (8) UNIDO should assist developing countries in the training of supervisors and technicians for the construction industry in co-operation with ILO.

Agenda item 2 Situation, problems and prospects of  
main industrial sectors

(j) Standardization

1. In the course of discussion on standardization in Committee II, no delegation expressed views conflicting with those expressed in the relevant papers, ID/CONF.1/A.13, ID/CONF.1/C.4 and ID/CONF.1/8.
2. There was general agreement that it was urgent that developing countries initiate or accelerate the process of organizing institutional machinery to formulate national standards and, in a general manner, to exercise or co-ordinate on the national level all the activities related to standardization. If developing countries could benefit from the industrial experience of technically developed countries, such experience was acceptable nowhere with less reservation than in the field of standardization. Standardization was of equal importance to both developing and developed countries.
3. It seemed appropriate to emphasize the decisive importance of the proper initial choice of certain fundamental standards (e.g. measuring units) in order to eliminate at the outset the difficulties and costs inevitably associated with a later change-over.
4. Standardization was closely connected to quality control. Its importance had already been stressed at prior meetings of Committee II during discussions on, e.g. food processing, engineering industries etc. One delegate pointed out that quality control helped developing countries during the stage of industrialization to ensure and maintain the quality of locally manufactured products enjoying tariff protection. The usefulness of issuing certification marks to promote exports as well as to increase the confidence of local consumers of national products, such as construction materials for example, was mentioned.
5. The importance of appropriate testing facilities for the development and implementation of standards was pointed out.



6. Information submitted by one delegation that in their country it was the setting up of standards covering complete production plant - such as sugar and cement - that encouraged local companies to take up the manufacture of components was considered of practical interest. In this way standardization served as a means of industrial promotion.

7. The main difficulty in implementing standards seemed to centre around the problem of training. In this connexion, several delegations endorsed proposals cited and made in paragraph 7 of the issue paper, ID/CONF.1/A.13. It was stated that the Asian Standards Advisory Committee of ECAFE had discussed the establishment of a regional training centre and that the ISO was strengthening its own machinery to assist in such promotion work.

REPORT OF COMMITTEE III

Agenda item 3 Policies and measures in developing countries

(a) General issues of industrial policy  
and its implementation

PART 1 ECONOMIC ASPECTS

1. The discussion centred around the issues raised in the Secretariat document on Issues for Discussion (ID/CONF.1/A.14), together with other issues presented by the delegations. With respect to the rate of industrial growth in developing countries, the meeting noted the progress attained in recent years. However, it was pointed out that the over-all picture was far from satisfactory and the need for an accelerated rate of development of the industrial sector was emphasized. The view was expressed that the promotion and strengthening of capital formation, both domestic and foreign, was of paramount importance. Certain delegates, however, were of the opinion that the most important factors in the process of industrial development were skills, technical know-how and entrepreneurship.

2. As regards capital formation, discussion focused on fiscal incentives and measures for promoting higher rates of capital formation, private and public, and conditions for encouraging the flow of capital, particularly foreign capital, into the industrial sector. The role of government in increasing domestic savings and the need for an efficient revenue service were also emphasized. It was the opinion of one delegation that savings should not necessarily be sought through a large reduction in local consumption. The necessary capital could also be obtained by an increase in foreign loans and grants. It was pointed out that tax incentives are only one of the measures available for the promotion of industries. It was suggested by one delegation that in some circumstances cash-grants may be a preferable alternative as their precise cost is known. They are more likely to be subject to periodic review and scrutiny, and the benefit is equitable to all concerned, whereas tax concessions can be discriminatory.

3. Certain delegations maintained that tariff protection as a means for attracting capital should be granted only for a limited period of time, say five years. The Committee agreed that fiscal incentives and measures should always be harmonized with changing conditions and the level of industrial development.
4. As regards the flow of foreign investment, a number of points arose during discussion particularly with regard to the kind of favourable climate and policy measures necessary for attracting foreign investment. Two opinions emerged. The developing countries felt that existing policy measures were sufficient. It was suggested that there was a need for a more equitable distribution of profits between foreign and domestic investors and that there was at present an imbalance in favour of the developed countries. Delegates from some capital-exporting countries considered that further measures could be taken to improve the climate for foreign private investment.
5. As regards more efficient employment of resources now existing in developing countries, improving the productivity of industry was discussed. It was suggested that productivity units composed of experts in the respective fields be established in developing countries to look into problems of low productivity and to suggest solutions or measures for improvement. In this connexion, some countries felt that problems related to the development of skills and technical know-how were of paramount importance, and urged that more experts be made available from developed countries.
6. As regards economies of scale and the problem of limited markets in developing countries, the discussion focused on policies of self-sufficiency, expansion of markets through regional integration or co-operation and increasing exports of manufactured products to developed markets, including further processing of raw materials at present exported. While recognizing that no uniform policy of industrial development could be adopted as regards certain developing countries, in particular small and medium countries, the opinion of the meeting was that more self-sufficiency should not be pursued as the main basis for industrialization policy. Instead, an appropriate mix of import substitution and exports should be established. This required also that choice be made of an appropriate technology for the available resources. It was felt that developed countries when called upon should assist

developing countries in the process of industrial development in the selection of the type of technologies that would ensure the viability of projects in small countries with limited markets.

7. As regards structural unemployment the Committee concluded that modern industry offered only a limited opportunity for employment in proportion to the amount of capital invested. In the longer run, however, modern industry contributed to the solution of employment problems to the extent that it promoted rapid economic growth.

8. In connexion with the parallel development of industry and agriculture, the Committee considered that in developing countries agriculture should be industrialized in order to achieve a high level of productivity, taking into account the interdependence of the two sectors.

9. In addition to the above issues raised in the secretariat document on Issues for Discussion (ID/CONF.2/A.14), the meeting discussed the role of the private and public sectors and marketing and distribution problems. As regards the role of the private and public sectors certain developing countries felt that industrial development, as distinct from the provision of infrastructure, should be entirely the responsibility of private enterprise. Many of these countries, however, having mixed economies with a varying degree of emphasis on the role of private and public sectors in industrial development, placed greater stress on the importance of the public sector.

10. A number of participants expressed the opinion that the area of marketing and distribution of industrial products has been neglected by the United Nations and other international organizations. It was felt that an industry was bound to fail if the distribution problem was not solved. Therefore the organization of distribution channels was one of the conditions for industrial development. Although investment required for the formation of distribution channels often exceeded that of the manufacturing process itself, the distribution channels offered extensive employment opportunities.

Recommendations

11. The Committee made the following recommendations:
  1. The developing countries should base their policy of industrial development on long-range plans and programmes which would take the following into consideration:
    - (a) The specific conditions existing in each country - natural, material and human potential;
    - (b) The new vistas opened up by modern science and technology;
    - (c) The possibilities offered by the domestic and international markets;
    - (d) The scope for mobilization of domestic resources and the flow of foreign capital;
    - (e) The need to diversify industry;
    - (f) The advantages to be derived from regional co-operation.
  2. Developing countries should aim to build up industries, the products of which would be internationally competitive. Developed countries should give manufactures and semi-manufactures from developing countries reasonable access to their markets and thus reduce the unfavourable impact of tariff and non-tariff barriers. Furthermore, developing countries should strive to increase trade among themselves. In this regard it was noted that these issues were being dealt with by UNCTAD and were on the agenda for its second session.
  3. Developed countries should assist developing countries in research and development in order to adapt types of technology to the scales and types of production which would be economically feasible. It was further suggested that developing countries should be helped at a later stage to produce the capital goods or equipment needed for industrial projects.
  4. The developing countries, while encouraging labour-intensive industries, should also work towards establishing industries that are increasingly sophisticated and automated in order to attain a higher level of industrial development. To this end, the developed countries and the international organizations, in particular UNIDO, should assist the developing countries, especially the lesser developed among them.

(5) Recommendations for UNIDO and other United Nations Organizations: Co-operation of international organizations with developing countries was deemed most useful and necessary to the process of industrialization of the developing countries. UNIDO should therefore:

- (a) Be developed to become an effective instrument for providing the necessary support for the formulation and implementation of long-term industrial plans and programmes in the developing countries;
- (b) Assist the developing countries in the formulation and implementation of industrial projects, and in securing a systematic and continuing transfer of new technology and extend technical consultative services, in co-operation with the appropriate international bodies;
- (c) In co-operation with regional commissions and other appropriate international agencies, provide facilities for the collection and dissemination of analytical material and other industrial information. Within that framework, systematic and continuous assistance necessary for adequate analysis of economic possibilities and effectiveness of industrial projects and plans, programmes and policies would be more adequately rendered.
- (d) In co-operation with regional commissions and UNCTAD, render assistance in exploring industrial investment opportunities on a regional basis;
- (e) Investigate, in co-operation with the United Nations Department of Economic and Social Affairs and the regional commissions, the question of fiscal incentives and similar measures for industrial production with a view to formulating a pattern of incentives appropriate for general application by developing countries;
- (f) In co-operation with FAO, study the various aspects of complementarity of agriculture and industry, approaching the problem from the agricultural input side as well as from the output side, including aspects of distribution (marketing) of processed agricultural products and infra-structural requirements of industrial products for agricultural development;
- (g) Formulate prototype agreements which might be required by the requesting countries in connexion with bilateral, multilateral, and joint-venture negotiations; such formulated agreements should be accompanied by extensive notes on definitions, terms and conditions as well as alternative possibilities. Senior interregional advisers should be made available by UNIDO on short notice to assist requesting developing countries in the evaluation of their joint-venture projects.

- (6) Developing countries recommended that due weight should be given by the second UNCTAD to the problem of a general system of preferences on a non-discriminatory and non-reciprocal basis for the exports of manufactures of developing countries on which the views of the developing countries had already been expressed in the Algiers Charter and which has also been considered by OECD.

PART 2    SOCIAL ASPECTS

1. The Committee recognized that industrialization required an adequate social structure. It was stressed that many developing countries lacked the appropriate means to create such a social structure and that their process of industrial growth was consequently restricted to a serious extent. It was felt that in many cases appropriate legislation in the social field would be needed. More consideration should be given in programming and planning industrial development to the social consequences of industrialization and experts in social questions should collaborate in the provision of technical assistance in this field. In turn, the impact on industrialization of social phenomena, such as rising population pressure and measures designed to alleviate such pressure, needed to be taken into account.
2. It was strongly felt that in many countries the educational systems should be re-oriented to better serve the technical needs of the industrial structure being developed. Also, the problems of retaining trained personnel in the social fields in the developing countries were considered.
3. It was suggested that in order to achieve adequate levels of productivity and the necessary social requirements for industrial development, it would be desirable to establish procedures or institutions designed to ensure that satisfactory measures regarding collective bargaining, minimum wages, social security, health and safety, labour mediation and conciliation, housing, vocational training and other amenities and incentives, are provided. It was widely felt that more foreign co-operation was required for financing the establishment of such services as part of the social infrastructure, and also for the training of local personnel. It also emphasized that private industry had a responsibility in many of these matters and should assist in establishing suitable conditions and providing necessary services. It

was stressed that whenever possible foreign investment should proceed in step with the provision of appropriate technical assistance in the social field by the bodies and organizations concerned.

4. Attention was drawn to the highly unsatisfactory working conditions in many developing countries, particularly as regards health, safety, social security and housing. Attention was also drawn to the problems of adaptation of the worker to new conditions. It was therefore in the national interest that labour unions and employers' organizations exercise an important role in the social aspects of industrial development. It was urged that the appropriate United Nations agencies render technical guidance and assistance in these fields.

#### Recommendations

5. Regarding the social aspects, the Committee made the following recommendations:
- (1) The appropriate United Nations agency or agencies should consult with UNIDO in the formulation of technical assistance policies for the developing countries in matters relating to social infra-structure designed to serve the requirements of industrial development.
  - (2) In the formulation of their recommendations arising from technical assistance activities, UNIDO experts should include consideration of the social aspects of industrial development. This should be done in co-operation with the appropriate United Nations agency in the field.
  - (3) UNIDO should publish a list of international or national institutions and organizations in the developed countries which are capable of rendering technical assistance regarding the social and health aspects of the establishment of specific industries.
  - (4) By means of seminars, meetings and technical working groups, the appropriate United Nations agencies should, in consultation with UNIDO, examine and disseminate pertinent data regarding the social aspects of the various stages of the industrialization process.



- (5) The developing countries should, where necessary, review their educational systems with the object of improving the training of industrial technicians and workers in order to attain a more adequate social infra-structure for industrialisation.
- (6) A number of delegates recommended that in all matters relating to rights of workers and social legislation in general ILO standards should be observed as a minimum.

Agenda item 3 Policies and measures in developing countries

(b) Formulation and implementation of industrial programmes

1. The debate concentrated on the main items of the secretariat document on "Issues for Discussion" (ID/CONF.1/A.16), and on the various documents submitted to the Committee. The Committee considered that the points raised in the issue paper were well arranged and facilitated the discussion considerably. The discussion related to the practical aspects of the main problems and of the measures and means to be recommended in that area.
2. Several delegates noted that in most of the developing countries industrial plans were only a simple aggregation of projects; there was a lack of the correlation which was essential from the operational point of view between the expenditure plans envisaged for the over-all development of an economy and their industrial components, as well as between the industrial components themselves. Mention was made of the role of macro-economic plans which, in their nature, should be complementary to the detailed sectoral studies by product and by project. It was suggested by one delegation that it was necessary to work out a system of "feedback" by means of appropriate control procedures or ex post facto analysis at all the relevant levels. Because of the immensity of the tasks and the changes which inevitably take place during the working out of plans, some delegates insisted on the necessity of working out flexible programmes which could be constantly adjusted to accord with current conditions which were of course continually changing.
3. It was noted that the planning organ had to be adapted to the special conditions of each country: it was stressed that it was important for these organs to seek the participation of both public and private services in the elaboration of industrial plans and programmes. At the same time many delegations recognized that the decision-taking at the project level placed a very heavy burden on the local industrialists who were lacking in experience and that it was necessary to increase the technical services provided by the national and international financial institutions in order to facilitate their task.

4. Some delegations were of the opinion that it would be desirable if an international organization such as UNIDO had a special service responsible for keeping under constant review the policies and programmes of industrial development being implemented by the developing countries. The dissemination of this information would enable the countries providing assistance and the financial institutions to understand the situation better and would also help the countries to work out better plans and to do so more confidently. A delegation expressed the fear that these studies might well tend to be too general, and thus be of little value for the solution of specific problems.
5. The delegations were in agreement that the developing countries lacked such essential data, that is, a synthesis of statistical, economic and technical data required for any elaboration of an industrial programme. It was recommended by some delegations that a "data bank" be formed to which any recognised development organ which carries out industrial surveys should be asked to furnish a copy of its report. The "data bank" would be responsible for its indexing and inclusion in the catalogue; the same procedure should be applied to a large volume of potentially useful information which also existed in the files in the various organisations, both national and international, but which were almost completely unknown to the people who needed them.
6. Other suggestions were made as to the types of information which could be serviced through the proposed "data bank". Mention was made in particular of data relevant to quantities and prices which would make it possible to evaluate the market potential of the new industries of the developing countries. In this connexion, mention was made during the debate of the possibility of using in an adapted form certain essential parameters, such as income elasticity of demand as derived from the experience of developed or developing countries, for the purpose of projections of less developed countries. One delegation recommended that the "data bank" should serve as a clearing house for information relating to export industries, so as to assist developing countries to avoid installation of excessive production facilities in ignorance of each other's intentions.
7. It was noted that it was more and more necessary to initiate common action at the multi-national level with respect to research, pre-investment studies and planning; it was consequently felt that the efforts which the countries themselves are

making to improve data and techniques of industrial programming should take into account the problem of inter-country comparability and that UNIDO should participate actively in the development of international co-ordination in this field.

9. Many delegates underlined the great importance of having "entrepreneurs" who were well qualified to envisage, initiate and implement industrial projects. It appeared necessary for the developing countries to encourage foreign companies to participate in the management of the new industries in order to accelerate the training of local cadres. In this connexion it was suggested that a good way of economising in the use of scarce talent would be for a group of local industrial enterprises engaged in similar activities to share the services of a team of specialists who would undertake management functions in various fields (finance, production, purchasing, maintenance and personnel).

9. Several delegates recognized that it was advisable to use "shadow" prices for working out the projects but it was noted that few countries are equipped to use this method satisfactorily. The view was expressed that the cost-benefit method, which took the social factors into account might give a distorted result if it was applied without taking into account the linkage effects, that is to say, the effects that a given project might have on the profitability of other sectors. In this connexion it was suggested that it would be useful and even necessary in the developing countries to make an inventory of the various studies that have been made of the pattern of growth of industries that offer a very considerable degree of interdependence with other industries.

10. Many delegations were in agreement that it would be necessary to include in project programming all the considerations and actions relating to the phase following the implementation of the projects. It would be necessary to review and re-evaluate such projects continually in order to be sure that they were adjusted in step with the fluctuations in the economic situation, and to take measures to ensure the participation of private and public institutions able to carry out such projects. The organization of training courses on project programming and follow-up would be most useful in order to develop specialized personnel. At the same time, the need was recognized for setting up project bureaux specialized in the creation and elaboration of realistic industrial projects and in their following-up and implementation.

Recommendations

11. The Committee approved the following recommendations:
- (1) Having regard to the complexity of the problems of programming data which calls for concerted action at both the national and international levels, UNIDO should immediately explore, in consultation with the United Nations Department of Economic and Social Affairs and the UNDP, the possibility of putting into effect a "data bank" service, in order to create a permanent effective machinery for systematic centralisation and exchange of information to be available at the national, regional and international levels; to this end, UNIDO should take all necessary measures and steps to ensure the best possible co-ordination between its activities and those of regional economic commissions, UNESOB and other regional and international organisations concerned with development.
  - (2) In co-operation with these organisations, UNIDO should assist in improving and rationalizing methods and means for compiling and evaluating industrial programming data for developing countries.
  - (3) UNIDO should continue and expand its technical assistance activities consisting in the dispatch of special experts with the task of helping the developing countries in project planning and in working out programmes for their implementation.
  - (4) UNIDO, in co-operation with the regional institutes for economic development and planning, should develop a sustained programme of training courses for personnel in the developing countries in the fields of industrial plans, preparation and evaluation of identified projects and in programming of the implementation of such projects and their follow-up.
  - (5) In the formulation of national industrial programmes, governments should, in the widest possible measure, consult with private industry that is able to participate in such programmes.

Agenda item 4 International aspects of industrial development

(a) Regional co-operation

1. The Committee considered what ways and means could appropriately be adopted at the regional, sub-regional or inter-regional levels for promoting industrial co-operation. It recognized the importance of such co-operation as an essential factor in achieving rational industrial promotion and expansion. Such co-operation was of decisive importance to the developing countries, especially for the joint exploitation of available resources and knowledge at the regional level. Over and above such resources and knowledge, the extension of local markets through regional liberalization of trade would help not only to enlarge the capacity of the industries thus created to increase savings and capital and reduce costs and prices through economies of scale, specialization and internal competition, but also to make their products competitive on the international market.
2. The Committee recognized that regional co-operation might take several forms and raise various problems both economic and political. In this connexion, some delegates emphasized that regional co-operation could be effectively promoted through existing regional or sub-regional consultative bodies. It was for each of the countries concerned to follow whatever path was best suited to its degree of economic development and its political systems. Attention was drawn, however, to the fact that development plans aimed at national integration sometimes create unintentionally obstacles to regional co-operation.
3. It was pointed out that the most far-reaching form of regional co-operation was the development of free trade areas, customs unions or common markets. A number of delegations observed that in certain situations sectoral regional co-operation could be beneficial though it could involve risks for other activities unless it took account of their priority character from the point of view of the general and harmonious development of the economies of the countries concerned.

4. In the opinion of several delegations, such sectoral co-operation should be included in an over-all long-term plan embracing all the objectives to be achieved in the region by joint action. Such plans, without being mandatory, could nevertheless provide some foundation for proposals for the co-ordination and harmonisation of the activities of the participating States.
5. Furthermore, some delegations suggested that geographical proximity and ethnic or historical affinities should not be regarded as the only criteria for regional co-operation. Similarity in degree of economic development might provide valid grounds for initiating co-operation between States from different geographic regions.
6. Some delegations expressed concern at the risk that developing countries might run if they were included in a system of regional integration along with more developed countries. In that connexion, the Committee recognised that the objectives of regional co-operation could not be fully attained unless the partners in such co-operation were genuinely anxious to work together for their mutual benefit.
7. A number of speakers pointed out that regional co-operation could not be fully effective if it did not provide for an equitable distribution, both short and long-term, of profits and losses - both in the initiation of joint projects and in the utilisation of the resources and communications of the region.
8. With a view to identifying appropriate opportunities for promoting regional co-operation between developing countries, the Committee stressed the importance of such regional facilities as research institutes, statistical centres and promotion services. In this connexion, co-operation between UNIDO, the Regional Economic Commissions, UNESOB and other bodies concerned would be desirable.
9. The importance was stressed for countries co-operating at the regional level to reach agreement on customs, monetary and fiscal matters. In that connexion special mention was made of the role which the regional economic commissions, UNESOB, UNIDO, UNCTAD and other United Nations bodies should play in encouraging regional co-operation. The Committee felt that, without interfering with any measures already taken in that respect by any United Nations body or regional commission, UNIDO should lend its assistance in helping the countries concerned, should they so request, to establish research institutes or statistical centres, or carry out feasibility studies.

Recommendations

10. The Committee made the following recommendations:

- (1) UNIDO should be enabled to strengthen its relationship with the Regional Economic Commissions, UNESOB and inter-governmental organizations, which are recognized as the most suitable bodies for promoting regional co-operation in the field of industrial development among developing countries. In order to develop projects jointly with the Regional Commissions, UNESOB and inter-governmental organizations, and to avoid duplication of efforts UNIDO, in addition to its field advisers in individual countries, should appoint regional liaison officers in the headquarters of the Regional Commissions, UNESOB and inter-governmental organizations.
- (2) UNIDO should participate actively in the industry survey missions, action groups, feasibility studies etc., as may be recommended by the Regional Commissions and UNESOB, or as may be requested by inter-governmental organizations.
- (3) UNIDO should assist in the preparation of regional symposia or regional conferences on industrialization, as may be organized by the Regional Commissions, UNESOB and inter-governmental organizations.
- (4) The Executive Director of UNIDO should submit periodic reports to the Industrial Development Board on the progress made in the above undertakings.



Agenda item 3 Policies and measures in developing countries

(d) Domestic financing of industry

Savings and the increase of savings

1. A number of delegations stressed the fact that developing countries would have to rely largely on their own savings to finance industrial development. Foreign capital could not be a complete substitute for domestic savings. Both the education of the general public into industrial mindedness and the habit of savings and the establishment of general confidence are necessary. In some countries, over-emphasis on investment in trading ventures or real estate or mere hoarding of jewellery and precious metals would call for modification. Inflation might harm the confidence necessary for stimulating savings. Conspicuous consumption might also undermine the readiness of the people to save.
2. A savings target of 20 per cent of national product in the long run seemed realistic. However, questions of optimal savings and growth rates entered the picture, and decisions on the balance between the need for capital formation and the meeting of the essential needs of the population involved difficult political decisions.
3. It was pointed out that changes in relative incomes could cause changes in the distribution of savings. Thus, relatively higher agricultural incomes might make it necessary to put more stress on mobilisation of savings in the rural sector.
4. Different sources of savings were distinguished. In the case of household savings mention was made of the possibility of bonuses in the form of company shares or bonds as part of wage increases. School children and social clubs could be stimulated to save, thus creating a savings habit. Government guarantees were suggested as a possibility to induce small savers to bring their savings to savings institutions. In addition to direct government guarantees, it was suggested that uniformity in reporting and high accounting standards could be furthered by governments to increase confidence.

5. Another possibility would be tax exemptions for small savers, e.g. those investing in unit trusts. Different forms of compulsory savings could also be envisaged in some circumstances.
6. In the case of business savings, again, it was pointed out that tax measures could induce companies to re-invest profits. It was felt that savings by businesses would be worth stimulating as an important source of industrial expansion by means of self-financing. In one case a government had introduced a system of compulsory reserves by companies.
7. In a number of cases industrial enterprises had grown out of trading firms which had started to process products they were already accustomed to trading. It was suggested that it might be possible to persuade commercial banks to use part of their resources for the financing of industry. It was pointed out, however, that commercial banks usually borrow at short term and might find difficulties in financing long term.
8. Industrial financing is an activity that might produce profits only in the long run although eventually it might be no less profitable than the quicker-return activities of trade and real estate. In order to stimulate the flow of finance to industry, profit opportunities in that sector should at least equal the opportunities in other sectors of the economy.
9. It was agreed that government savings could be important. Such savings could be used where private savings were insufficient, or where there was no interest in the financing of a certain project. Industrial enterprises financed by the government, once they were fully installed and operating successfully, could contribute to the flow of re-invested profits. It was pointed out that net government savings could only be produced if total government finances showed a surplus. This required a close scrutiny of government administrative machinery and restraint in salary policy. In one country the president set the example by a voluntary reduction of 20 per cent in his salary.
10. It was agreed that in view of the limited scope of domestic savings in the developing countries, the prevention of waste was essential. Waste might take many forms: investment in prestige projects, non-co-ordination of projects, wrong

selection of projects leading to wastage in the use of the human factor. The right selection of projects and the provision of good management were essential in order to conserve scarce capital. The outflow of private funds or assets from developing countries for investment or deposit abroad should be discouraged to avoid a drain on the savings available for industrialization.

Industrial aspects

11. A number of suggestions were made as to the institutions which could assist in providing capital for industrialization, and which might be set up by developing countries if they did not already exist. Such institutions should perform the following tasks:

- (a) mobilising savings, e.g. local savings banks, life insurance and pension funds, post office savings, commercial banks, and other financial institutions;
- (b) bringing funds from savers to investors - i.e. the intermediary function;
- (c) creating security, so that savings can be stimulated, and those in need of funds (e.g. entrepreneurs beginning operations) can take up money for investment.

12. A number of institutional provisions were mentioned by the delegates taking part in the discussions. It was felt that institutional provisions would necessarily differ according to the stage of development. In all cases they would have to be close to the public - both rural and urban - and therefore their staff would have to consist of local people who know how to take the right approach.

13. Institutions could be (a) government-owned and financed; (b) private-owned and financed; (c) based on a partnership between government and private interests; (d) private-owned but government guaranteed.

14. For smaller savers unit trusts were often formed. The spread of commercial banks could also do a great deal to stimulate savings.

15. It was pointed out that monopolies increase the risk of mistakes in investment decisions and that therefore more than one institution of the various types was advisable. Financial institutions might serve certain sectors. Industrial, agricultural and even tourist investment banks were mentioned in this connexion.

16. International organizations such as the IBRD and IFC were already contributing to the improvement of financial institutions in many developing countries. Financing institutions in industrialized countries were also providing technical assistance and training.

17. It was recognized that in many developing countries a money and capital market could only develop as industrialization itself gathered pace. Stock exchanges could only be fully effective when a large number of shares could be traded. Small dividends declared, and a lack of openness in reporting by many companies, were other reasons which might limit stock exchanges.

18. It was suggested that the creation of a money market might take place on a regional basis. Such co-operation between countries could spread risks. Regional Development Banks had already been created as a result of co-operation between local governments and private investors and governments and other investors outside the region.

#### Recommendations

19. The Committee made the following recommendations:

- (1) Governments of developing countries should develop policies designed to stimulate savings and to induce a better understanding of the advantage of household savings and to strengthen the savings habit.
- (2) Governments of developing countries should take appropriate action to discourage hoarding and to seek ways and means of employing the hoarded resources in industrial and other economic development.
- (3) Governments of developing countries should, wherever necessary, encourage through appropriate measures, the retention within industry of a reasonable percentage of profits and an adequately high level of depreciation provisions and their re-investment in local industry.
- (4) Governments of developing countries should promote efficient domestic financial institutions both for the collection of private savings and for channeling savings into domestic industrial investment.

- (5) Governments of developing countries should, wherever appropriate, consider offering guarantees to commercial banks, insurance and other financial organizations on part of their industrial risks.
- (6) Central banks should consider offering advantageous discounting facilities to financial intermediaries in industrial investment.
- (7) Branches of foreign banks in developing countries should be encouraged within the limits of sound banking practice to direct as much as possible of their funds to industrial development within those countries.
- (8) UNIDO should, as requested by governments, co-operate with the appropriate international financial institutions in giving assistance to developing countries in the above tasks.

Agenda item 4 International aspects of industrial development

(b) External Financing

1. The Committee noted the important role which external capital must play in the financing of industrial development in the developing countries. Although the estimate was given that a small increase in their export earnings could add more to the foreign exchange resources of the developing countries than a doubling of present external aid, nonetheless it was recognized that external financing would continue to be required for the purchase of machinery and equipment as well as for materials and for services such as know-how and management. The Committee examined three aspects of external financing - foreign private investment, bilateral financial assistance and multilateral financial assistance.

Foreign private investment

2. It was pointed out during the discussions that private foreign capital accounted in 1966 for about one third of the total capital flow to developing countries from countries members of the OECD Development Assistance Committee. Of the total foreign technicians working in developing countries, about one third were expatriate staff of foreign private enterprises domiciled in DAC member countries who also form the biggest source of industrial expertise.

3. On the other hand, it was suggested that the quantitative importance of the private capital flow to developing countries should not be overrated. Since total exports of the developing countries amount to some 37 billion dollars, as against some 3 billion dollars in private capital inflow, a 10 per cent increase of those exports would contribute more to the balance of payments of the developing countries than a doubling of that flow.

4. A number of delegates pointed out that in the longer run private investments would bring net advantage to the balance of payments owing to their import-replacing

and export-creating effects. Three different types of enterprises were distinguished:

Firms specializing from the start in doing business in developing countries, such as extractive industries producing for export;

Trade companies which had been doing business for a considerable period already and were now often involved in redeploying their capital from trading into industrial activities;

Enterprises that formerly exported to the market of developing countries and were now increasingly setting up industrial enterprises. Such enterprises also increased the know-how of local businesses dealing with them.

5. Notes of caution were sounded about the possible monopolistic influence of some foreign enterprises in some countries and their possible lack of co-operation with governments. The fact that foreign investments might involve political pressure was also mentioned, with a warning against over-dependence upon foreign economic interests which sometimes invested in factors yielding quick results and high returns. It was also suggested by some delegations that in some cases private capital might not be adaptable to long-term aspects and criteria which were of the greatest importance for the achievement of the main targets contained in the national plans and development programmes of the developing countries.

6. As regards the incentives for private investment, the IBRD Convention on the Settlement of Investment Disputes was noted. Some donor countries stated that they already provided investment guarantees for their nationals. In this context the Draft Articles prepared by the IBRD on multilateral investment insurance against non-commercial risks were mentioned. The possibility was suggested of so-called "threshold financing" for feasibility studies and other activities to interest foreign investors. Special mention was made of the advantages of tax incentives by donor countries and of avoiding double taxation, and relieving from taxation enterprises whose profits are to be invested in the developing countries. Investment laws which strike a balance between the interests of foreign enterprises which seek to avoid expropriation and discriminatory treatment and the independence of the host country were stressed as an appropriate legal instrument. It was suggested that model clauses for such a law could be drawn up. It was stated that important elements stimulating foreign investment were multilateral or bilateral agreements on the promotion of private foreign investment in developing countries, thus increasing the security of the transfer of earnings and payments for know-how. The desirability of developing countries creating or modernising patent legislation so

as to encourage private foreign investments and the transfer of technology was also mentioned. Attention was drawn to the model law on patents drawn up by a committee of experts from developing countries under the auspices of BIRPI.

7. It was pointed out that the right psychological attitude of host governments was also a most important factor. In this context political and economic stability was mentioned as an important factor in a good investment climate. Where private investment might create difficulties for national enterprises, it was suggested that joint ventures between local and foreign partners could often provide a solution.

8. To alleviate the balance-of-payments problem of developing countries and to stimulate the flow of private investments, a number of delegations suggested that an increased amount of loan capital should be provided on easy terms by developed countries for industrialization purposes. It was also suggested that for balance-of-payments reasons measures should be taken to lower the cost of know-how and training.

9. A number of remarks were made about the need for adjustments on the part of foreign investors. It was considered vital that foreign enterprises should adjust to local aspirations, so that they do not become "enclaves". It was thought essential also for foreign investments to be guided by the objectives of the national plans and to be directed into fields deemed suitable by governments. Many delegations stressed the necessity to stimulate the employment of local people and to train them for higher posts. Increasing readiness to form joint ventures was noted as a favourable development. Where big investments were being made in remote areas - as in extractive industries - arguments were advanced for a contribution in some cases by the foreign investor to the cost of infra-structure.

10. International investment trusts consisting of groups of financial enterprises in several countries were mentioned as an interesting development which could be increasingly important for useful private investment in the developing countries.

#### Bilateral financing

11. In the case of loans for infra-structure and industry, bilateral financing plays an important role. A number of delegations stressed that although their countries favoured untied aid in principle, a number of circumstances made tied aid inevitable.



In order to avoid excessive costs for equipment bought with bilateral aid, one delegation expressed the hope that a method could be found to combine it with international tendering. One advantage mentioned with regard to bilateral aid was that a country, once it was responsible for a certain project, must follow it up in order to make a success of it. In some cases heavy debt servicing obligations of developing countries had already brought a shift in the policy of donor countries from a major stress on infra-structure financing to greater stress on the financing of more directly productive and profitable projects, such as industries. It was observed that the advantage of soft loans might be cancelled out by the higher prices of machinery financed with such loans. Stress was put on the need for a greater proportion of official aid to be extended in grant or grant-like form for the lowering of interest rates and lengthening of grace and repayment periods in view of the debt burden of developing countries. The system of international financing in general should be adapted so as to be more in keeping with the special features of growth in the developing countries and with the situation in individual branches of industry.

#### Multilateral financing

12. The World Bank Group as the main source of multilateral finance was considered a very useful instrument by many delegates. It had shown a high adaptability to changes in conditions in recent years.

13. An account was given to the Committee by the UN/FAO World Food Program (WFP). During the five years of its existence it had already started 262 projects in 66 countries, involving a total of \$US 245.8 million. Two hundred projects were now in operation or had been completed. The programme stressed infra-structure works of a labour-intensive character, of which up to 50 per cent of labour costs could be covered with food assistance. It was suggested that this programme could be of interest in relation to the creation of industrial estates and other infra-structure works for industry. WFP food also offered the opportunity to partially finance the training of unskilled industrial workers before they become productive or retraining if they have to specialize further or transfer to another industry.

14. Some negative characteristics of the present system of international financing were mentioned, such as the unpredictability of amounts available and the inflexibility in terms and conditions. One delegate deplored the fact that currently the World Bank which was able to extend loans to the IFC could not on the other hand replenish the resources of IDA; he also expressed misgivings about certain attitudes of the World Bank group towards public undertakings in developing countries.
15. Many delegations expressed a preference for channeling finance through multilateral institutions. Other delegations preferred bilateral finance.
16. A number of delegates expressed regret that the 1 per cent target for international assistance had not yet been realized by all developed countries, and that even a relative decline had taken place. Moreover, the relatively high cost of financing had in some cases led to heavy debt-servicing burdens that some delegations thought would make multilateral efforts for rescheduling of debts necessary.
17. Regional development banks were considered effective instruments for financing industrial operations. The Inter-American Development Bank had put 21 per cent of its loans into industry, totalling 98 loans, thereby also mobilizing considerable funds from local sources. It was noted that IDB loans were never smaller than \$US 500,000, smaller loans to medium and small-scale industries being left to local development banks. A pre-investment fund for Latin American integration was expected to produce considerable results in the coming years.
18. The African Development Bank, of more recent origin, with capital of \$250 million, had a membership of 29 countries. It could attract foreign public and private investment. Its role in providing investment guarantees was stressed. One of the explicit aims of the Bank was the financing of projects of a regional interest.
19. The Asian Development Bank had started operations. Its functions were broadly similar to those of the other regional development banks. Provision was made for special operations financed from special funds. In this connexion one delegation expressed the intention of its government to make a contribution for such special operations on a matching basis with other developed countries.

Recommendations

20. The Committee approved the following recommendations:

- (1) Developing countries, while mobilizing to the maximum their own resources for financing the process of their development, should endeavour to foster a climate which would encourage foreign investors, and to that end should keep under review the operations of their economic ministries, taxation departments and machinery for negotiation.
- (2) Governments of developing and developed countries should, to the extent consistent with the laws and regulations prevailing in their respective countries, enter into agreements which promote and guarantee foreign investments.
- (3) Because the flow of foreign capital through investment in developing countries is normally accompanied by a systematic and continuous transfer of technology, management and skills, developing countries should in their own interests enact patent legislation or modernize existing legislation so as to be in a better position to benefit from discoveries made in other countries.
- (4) The methods of external financing of industrial development of developing countries should be adapted to the fullest possible extent to the development processes of each country or group of countries. Particularly favourable and flexible conditions should be made available whenever possible to the least developed countries. In the same spirit, finance should be provided on the conditions appropriate to the various types of industries and the system of external financing should be co-ordinated with national plans and methods of industrial programming.
- (5) International steps to promote foreign investments should be supported by the appropriate international bodies, and might include the promotion of methods, criteria, organisational forms and conditions for the financing of industrial programmes and projects, and in particular:

The extension of technical assistance to developing countries in making feasibility studies for industrial projects, or groups of projects, and in preparing technical outlines to be submitted with requests for external financing;

The extension of assistance to developing countries in establishing or consolidating investment promotion agencies for industrial development, and in securing for developing countries a continual flow of information on trends in the foreign capital markets and possibilities for attracting foreign capital;

Assistance in establishing contacts between the financial institutions of developing countries and corresponding institutions in developed countries as well as between domestic and foreign investors.

- (6) UNIDO should consult with appropriate international financial institutions and governments with a view to undertaking as soon as possible a study aimed at defining objective and equitable conditions for stimulating the flow of capital to developing countries.
- (7) The developed countries should take any action feasible to assist the efforts of the developing countries to encourage reinvestment of profits by foreign investors.
- (8) A number of delegations recommended that developed countries should consider guaranteeing investments by their own nationals in developing countries against non-commercial risks and taking suitable measures to eliminate double taxation. They should at the same time endeavour to make it possible for financial institutions to make resources available as soon as projects prove feasible and profitable.
- (9) A number of delegations recommended that the developing countries take other measures aimed at improving the climate for investments, such as: allowing reasonable profits; facilitating remittances of such profits and salaries; payment for the factor know-how; tax measures, including the prevention of double taxation; investment laws; and adherence to the IBCD Convention for the Settlement of Investment Disputes.
- (10) Many delegations recommended that the developed countries make available, bilaterally and through multilateral channels, larger amounts of financial aid to assist industrialization of the developing countries, in accordance with the targets set in United Nations resolutions. Financial arrangements for the requirements of industrial development should preferably be based on a long-term approach and cover the development programmes of individual countries, or groups of countries, for a number of years.

Agenda item 4 International aspects of industrial development

(c) Technical co-operation

1. The Committee was invited to consider four main issues in the field of technical co-operation:

- (a) The flow of technical assistance to industry in developing countries;
- (b) Questions of priority in assistance needs;
- (c) Improving the effectiveness of assistance received;
- (d) Co-operation with the industrialized countries in the provision of expert manpower.

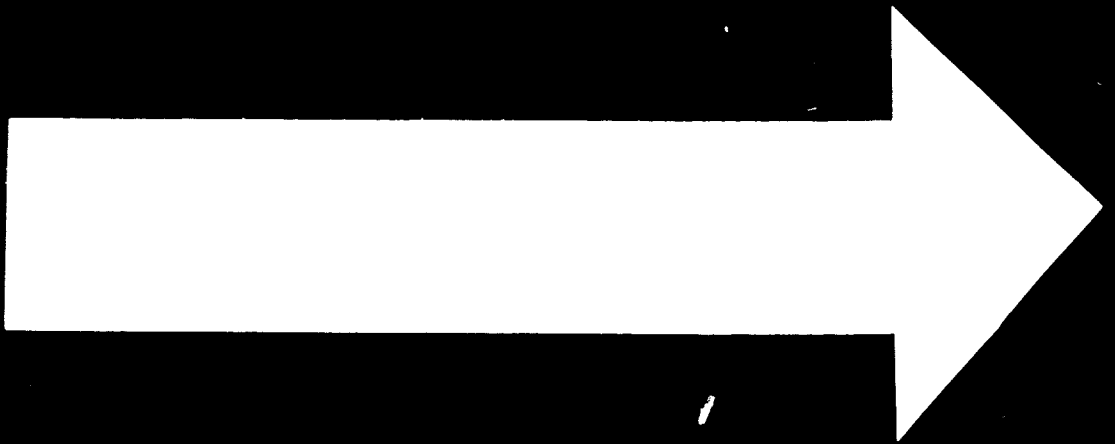
2. A total of 28 delegations took part in the debate. Contributions to the proceedings were also made by representatives of the ILO and UNCTAD on matters of reciprocal and common interest and on possibilities for collaboration. A representative of the UNIDO secretariat made a statement regarding procedures of the organization, with particular reference to recruitment.

(a) The flow of technical assistance to industry in developing countries

3. The importance of an adequate flow of technical assistance to the industry of the developing countries was generally acknowledged and it was widely recognized that the success of projects or programmes of industrialization often depended on the proper use of available funds and technical assistance.

4. During the discussion frequent references were made to the sources and uses of technical assistance. Some delegations stressed the need for more technical assistance; some emphasized the need for more multilateral technical assistance; others for the increase in bilateral technical assistance. Others again insisted that there was room for both. Several roles were suggested for UNIDO, including that of assisting in promoting viable technical assistance projects and of coordinating and harmonizing the technical assistance activities in the field of industry of the United Nations family of organizations.

5. Consideration of the many problems of providing experts was given close attention. Delegations said that in some cases the experience gained in one developing country could be very usefully applied in another. Experts should appreciate their responsibilities and act accordingly. Some delegations complained that certain



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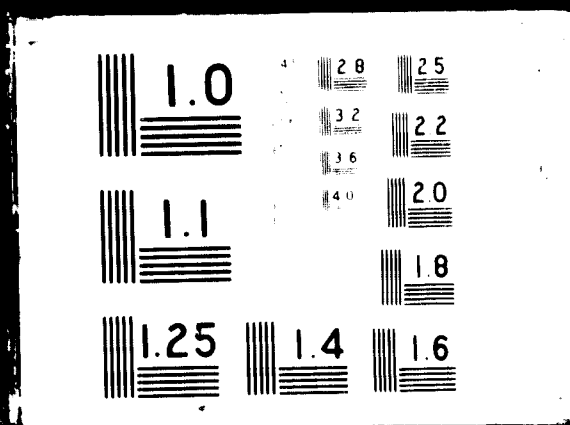
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experts appeared to show greater concern for their own welfare than for the work they were supposed to do. Other delegations urged that experts should act in a managerial as well as an advisory capacity. One delegation felt that the level of qualifications demanded was sometimes high.

6. Emphasis was placed by others on the need to select experts of the right quality and experience. Stress was laid on the need for a proper inventory of requirements and preparatory work before an expert arrived, in order to ensure that the developing country could reap the greatest benefit. It would be helpful if a briefing manual could be prepared for experts going into the field. It would also be helpful, another delegation suggested, if UNIDO could compile a list of experts in the field of industry who had already successfully completed projects and were available for subsequent service. More use should be made of consultant firms, it was strongly urged, as these firms could be expected to have experts readily available.

(b) Question of priority on technical assistance needs

7. This aspect of the agenda item was not taken up as a separate topic. Although delegations indicated, by drawing specific problems to the attention of the Committee, the relative importance they attached to individual problems, no attempt was made by the Committee to arrive at any agreed list of priorities. It was suggested that it should be left to governments of developing countries themselves to decide on priorities in implementing industrial development projects.

(c) Improving the effectiveness of technical assistance received

8. A number of the comments on the need for improving the effectiveness of technical assistance received were related to the supply of experts as noted above. In addition, some comments were made regarding the adequacy of the present system of recruiting experts. At the request of the Chairman, a representative of the UNIDO secretariat described practices and procedures in this regard. He said that there were many difficulties. The system was cumbersome and needed streamlining. Although continuing efforts were being made to ensure that the selection was as effective as possible, there were still serious handicaps.



9. The need for flexibility was stressed by several delegations; bureaucracy should be avoided and bottlenecks should not be allowed to hamper the implementation of projects. Although delegations realized that there were many problems and difficulties, a number criticized the slowness of recruitment. Some said special facilities for recruiting were needed to overcome these obstacles. Others suggested that if regional training institutions were set up, training of personnel could take place in developing countries, thus reducing the dependency on outside sources.
10. A number of further suggestions for improving the effectiveness of technical co-operation were made during the discussion, among them the following:
- (a) Technical co-operation requests should be carefully screened in order to achieve the maximum impact;
  - (b) More industrial development centres in developing countries and regions might also be set up;
  - (c) UNIDO should co-ordinate its activities closely with United Nations machinery, such as the regional economic commissions already in existence;
  - (d) Research undertaken at the request of the developing countries should be applicable to the specific needs of developing countries;
  - (e) UNIDO should help in the implementation of industrial programmes;
  - (f) The possibility of instituting programmes for management development might be considered;
  - (g) The importance of long-term interests, such as the improvement of industrial skills, should not be ignored as a result of the pressure of short-term projects.
- (d) Co-operation with the industrialized countries in the provision of expert manpower
11. Co-operation with private industry for the provision of manpower and expertise was mentioned by a number of delegations. Suggestions on the forms that such co-operation might take were varied. The use of national advisory councils as a source of expertise was recommended by one delegation. Another delegation said that Governments should encourage their technical and scientific staff to participate in international programmes.

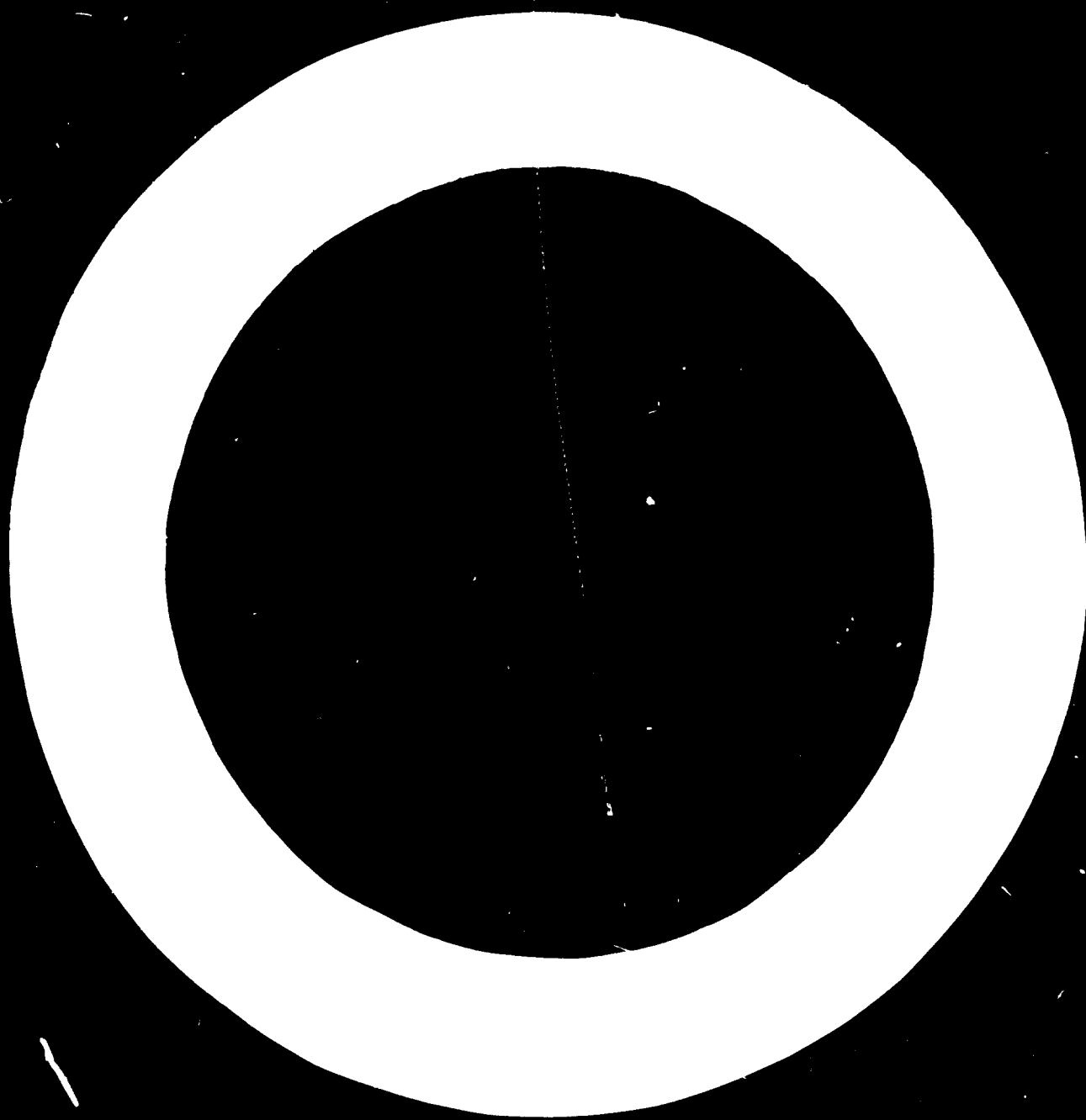
12. There was support for a suggestion by one delegation that, in order to obtain the short-term services of persons engaged in industry, without interrupting their careers, it might be practical to invite firms to make arrangements so that from time to time they could without serious difficulty second an expert at short notice.

13. Another proposal that developed countries might offer tax incentives to firms willing to provide experts for technical assistance programmes in developing countries was favourably received. Joint ventures between Governments and private industry were also cited as a possible form of technical co-operation. One delegation expressed the view that the private sector should be consulted in the formulation of national development plans. Other delegations stressed that co-operation between private industry, Governments and the United Nations could help to speed the implementation of industrial projects in the developing countries.

#### Recommendations

14. The Committee made the following recommendations:
- (1) Having regard to the limitations of funds available for technical co-operation and in view of the need for securing the greatest effective use of such funds, it is recommended that priority be given to technical co-operation projects which can demonstrate that optimum results can be gained from the expenditures.
  - (2) Owing to the special qualifications required of experts in the field of industrialization and the urgency of the recruitment problem, consideration should be given, as a matter of urgency, to the establishment of special facilities for the speedy recruitment by UNIDO of competent technical assistance personnel.
  - (3) In view of the need for expeditious recruitment of experts with diverse and high-skilled capabilities, it is recommended that greater use be made of consulting firms.
  - (4) Developing countries should intensify their efforts to provide capable counterpart personnel for United Nations programmes and projects in the field of industry.

- (5) The Centres for Industrial Development established or in the process of being established in a number of countries with the assistance of UNDP/UNIDO should play an expanding role in assisting in the identification and implementation of industrial pre-investment projects.
- (6) Taking into account the Industrial Promotion Service and the value of the services it provided during the Athens Symposium, it is recommended that consideration be given to ways and means for providing further services of a similar nature.



ANNEX 2 OPENING STATEMENTS

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a) Message of the Secretary-General of the United Nations <sup>1/</sup>

The convening of an International Symposium on Industrial Development by decision of the United Nations General Assembly is both an expression and a symbol of the growing concern of the international community with the problem of development.

In expressing our gratitude to the host country, let us remember that it was here in Greece that the Hellenic Genius for systematic enquiry came into its full flower. This venue should therefore provide us with an inspiring framework for dealing with some of the most difficult and complex problems that a majority of nations are facing at this juncture of their development.

While we concentrate our efforts on the problems of today we must remain within full awareness of their historical perspective. Modern technology could probably be traced back, over a gulf of many centuries, to the first sparks of scientific thought kindled in ancient Greece. Its far reaching impact through industrial application over the last century or two is only now becoming fully apparent. We have also come to realize that the many blessings that technology bestowed on those who have been able to make early use of it have also resulted in a new international barrier which increasingly separates "North" from "South"; developed from developing countries. In a world where the need for bridging all areas of conflict has become a basic imperative of survival, this divisive schism between poor and rich nations cannot be allowed to continue, much less to widen.

An international meeting on industrial development was perhaps long overdue in the light of the hopes which the developing countries have focused on the development of modern and efficient industries as a means of raising the standards of living of their populations and providing new and stable sources of productive employment. Whether we consider the historical perspective of the last two hundred or of the last twenty years, it is becoming increasingly apparent that the basic social and political problems of the developing countries are not likely to become amenable to effective solutions in a stable environment without the establishment

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<sup>1</sup> Distributed as document ID/CONF.1/57.

of an autonomous productive capacity based on modern technology. The prodigious possibilities of modern technology must be harnessed through the building of plants and industrial complexes for a large variety of products and to ensure the fullest utilization of the natural resources of the developing countries as well as of their manpower. This may be the most important task in the field of development over the next decade or two.

While a large part of the effort will have to come from the less developed countries themselves, international co-operation will remain an important element in any all-out effort to produce meaningful results over a relatively short period of time. It will call for a true partnership between the manpower, market potential and physical resources of the developing countries, and the capital and technological know-how of the industrially advanced countries. The increasing internationalization of economic operations in our contemporary world is bound to require closer international co-operation in these areas, not only for the development of the industrializing countries but also for a more balanced and fuller development of the world economy as a whole. This may be particularly important in the area of new technology. There is now considerable concern, even among the industrialized nations, about the concentration or polarization of technology which followed the vast expansion of innovations and industrial production during recent years. The development of international co-operation in promoting the technological advancement of the less developed countries may facilitate all-round accessibility to new technology and its application to industrial production.

The significance of the Symposium can only be assessed in the context of the increasing internationalization of these problems. In providing an opportunity for discussing in depth the many complex problems which must be dealt with in the process of industrialization, the Symposium will contribute to a better understanding of the underlying problems and to the creation of conditions for co-operative approaches to their solution.

Because of the great importance that I attach to this meeting, I deeply regret that the current pressures of office prevent me from joining you personally in your deliberations. I wish however, to express on this occasion my conviction that industrialization has a crucial role to play in the efforts of the developing

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countries to bridge the gap that has been keeping more than two thirds of humanity in chronic poverty. It is my sincere hope that the results of this Symposium will give a new impetus to the efforts of the industrializing countries and further contribute to the effectiveness and scope of the activities of the United Nations Organization for Industrial Development.

I wish to express to you my best wishes for the success of your endeavours.



b) Statement by His Majesty King Constantine of the Hellenes

It gives me particular pleasure to welcome you here today.

The United Nations Industrial Development Organization provides a very useful instrument for the realization of one of the fundamental objectives of our international community - the raising of the standards of living of the developing countries. And the swiftest and surest way of doing that is by industrial development.

Reduced to its basic fundamentals, the problem can be expressed quite simply: some countries have the raw materials which industry requires but do not have the technical equipment and know-how to exploit them. Other countries which are highly developed industrially do not possess the raw materials. The problem, then, is to reconcile these two basic considerations to the benefit of all concerned.

Great progress has of course been achieved in that field, especially in post-war years. But the partial solution of the problem has itself created problems because the rapid pace of industrialization of underdeveloped areas has created new demands and new markets which only an over-all increase of industrial productivity can satisfy. And this can only be achieved through a constant stepping-up of industrial production and the further industrialization of developing countries.

Certainly the narrowing down of the differences between the developed and the developing countries must constitute a basic assumption for the peaceful existence and the economic co-operation of the peoples of this earth.

This will require negotiations between nations, which is always the best way if any benefits are to be derived and if evils are to be averted. For our part, we have always been in favour of peaceful negotiations.

I therefore wish to stress the importance of the United Nations Industrial Development Organization to the developing countries, which include Greece. In this context, I am confident that this gathering will afford a splendid opportunity for the participants to establish not only the necessary official contacts but also these personal links which are so valuable in international co-operation.

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I am happy to note the presence in this hall of so many distinguished personalities; this is a token of the importance attached to this meeting by the participating countries.

In my own country, it is a privilege that representatives from all over the world should be meeting here in Athens to discuss and take decisions on matters of such vital importance.

I wish you every success in your labours.

c) Address by H.E. Mr. Nicholas Makarezos, Minister of Co-ordination,  
Government of Greece

On behalf of the Greek Government I would like to greet the first United Nations Symposium on Industrial Development. I wish you all full success in your efforts and I hope that you will justify the expectations of humanity. In fact, what the peoples of the world expect from your deliberations is new forms of international co-operation for the purpose of obtaining a substantial rise in their living standards.

It is beyond doubt - and this has been widely accepted by all United Nations organs - that only through industrialization can the above purpose be achieved in the shortest period possible, and this is the reason why your Symposium is of particular importance.

Already, developing countries can show considerable achievements in industrialization. These achievements are mainly due to the perseverance, the hard work and the sacrifices of their peoples.

However, the road ahead is a long and difficult one. In similar conferences of a more regional character both the achievements and the purposeful efforts of the developing countries have been clearly pointed out. Concrete proposals have also been put forward for the speeding up of industrialization. Those proposals, as far as they refer to international co-operation, should be debated in this Symposium and, if they prove to be constructive, they should be carried to the stage of implementation.

There is no doubt that the industrialization of developing countries poses new problems even for the already developed countries. The inflow of the necessary capital, under favourable terms, to help the industrial effort of the developing countries, and also the enlargement of possibilities for the export of manufactured goods to the markets of economically advanced countries - which necessitates a change in the structure of industrial production on an international scale - these are some of the topics on which you will concentrate.

As becomes evident from the voluminous preparatory work accomplished so far both by individual Delegations and by the Secretariat of the United Nations Industrial Development Organization, your Symposium will tackle the whole series of problems relating to industrial development.

This preparatory work can already be considered as a substantial achievement of your Symposium. For the spreading of acquired knowledge and experience constitutes a most essential factor of economic development. It facilitates the selection of the appropriate methods of production and helps to avoid errors in the process of industrialization.

Greece, which stands on the threshold of industrial development and strives successfully in that direction, is willing to contribute to every form of international co-operation in an effort to facilitate the solution of problems that underdeveloped countries face.

So, in closing, I express the hope that the activities of the Athens Symposium will constitute a landmark in the United Nations peaceful efforts towards a faster growth of the developing countries as well as international economic equilibrium.

d) Statement by Mr. I.H. Abdel-Rahman, Executive Secretary of the International Symposium on Industrial Development <sup>2/</sup>

This first International Symposium on Industrial Development convenes at a rather difficult period in the modern era of international economic relations between developed and developing countries. Today, there are a number of indications of an erosion of the international economic co-operation and goodwill between these areas that many have laboured so diligently to establish. However, Mr. President, I believe that this period of disenchantment is a temporary phase. The era of political transformation from a world of colonialism to one of sovereign independent states is largely behind us. Under the former conditions, before these political changes, there was often a more clearly definable relation, in terms of expectations, between the transfer of resources to underdeveloped areas and the resultant product from such areas. But few will debate the point that too little of the income derived from that output stayed in the areas of production and that too much found its way to the old metropolitan powers. Now, we are in the early phase of widespread political independence. This situation has generated among peoples and governments of all developing countries new aspirations for economic development, in order substantially to improve the standards of living and levels of welfare in the poor regions of the world. In this period of awakening to new opportunities, the relation between international economic assistance and co-operation and the economic yield thereof is sometimes obscured, and in a number of instances the apparent reward from the co-operative effort has been diminished through mistakes, miscalculations and waste. All see the need for remedial measures.

But, Mr. President, it is my firm conviction that the long-run relation between co-operation and benefit therefrom will be very different from this short-run situation. I will venture to assert that the distribution of gains from increased international co-operation for the economic development of developing countries, in addition to being vastly more equitable will be ultimately to the advantage of all. I cannot stress this point too strongly: by strengthening international assistance to and co-operation with the developing countries the advanced countries will find

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<sup>2/</sup> Distributed as document ID/CONF.1/58.

that they will be substantial beneficiaries. Only those who think in static terms will consider that international co-operation is nothing but a redistribution of income from a fixed output away from the developed to the developing areas. If one recognizes the dynamics of the process of economic development and the inevitable time lag between assistance and resulting economic growth, one will also realize the futility of the disenchantment to which I have referred. The alternative path to economic development for developing countries lies in an isolationism in which the economic gains will be fewer for all concerned and the political effects of the widening gap between the developed and developing countries will be most unfortunate. An accelerated and more successful industrialization is the most important key to the general advance in standards of living for the peoples of the developing world. Thus far, in international gatherings, the focus of deliberations has generally been on related or more general facets of economic development. This International Symposium on Industrial Development provides a first opportunity for the international community as a whole - comprising both developing and developed countries from all regions - to engage in a direct and sincere dialogue in depth on the problems of and prospects for the more rapid industrialization of developing countries. This broadest possible exchange of ideas between developed and developing countries on this subject is as crucial, Mr. President, as their joint responsibilities for action.

The current level of attainment by industry in most developing countries is far from satisfactory. This is so, even in the perspective of the early industrialization of some of the now developed countries of the world. And yet, when the industrialization of these countries was still in its infancy in the latter part of the nineteenth century, there were not the advantages of recent revolutions in technology, of the growing complex of international finance institutions, of improved educational facilities etc..

The recently recorded average annual rate of growth of industry in developing countries as a whole of seven per cent means relatively little in absolute terms, given the narrow base to which it applies. The volume of manufacturing production in the developing countries, taken as a whole, still represents less than one twentieth of total world production of manufactures. It must be recorded, further,

that the bulk of the world's population live in the developing areas. As a result, there is the stark fact that for the earlier part of the Development Decade, while the value of per capita manufacturing production in the developed countries was approaching 600 dollars per annum, the corresponding value for developing countries was close to only twenty dollars. (These values are expressed in terms of U.S. prices in 1958). It is suggested in the documentation before the Symposium that if the rate of growth of seven per cent which I have mentioned were to continue, it would take developing countries about 35 to 40 years only to reach the present aggregate level of manufacturing output of developed market economies. In the meantime, of course, the developed world would have left their present level far behind.

As to the pattern of industrialization, there are few instances where the development of industry has proceeded as an organically integrated process. Thus, the industrial sector of some developing countries has remained largely geared to the economies of former metropolitan powers. Even in some of the apparently more advanced developing countries, industrialization has taken the form of economic enclaves with little linkage with the rest of the national economy. In most cases the pattern of industrial production has reflected excessive reliance on generally costly local substitutions of products for final use which were formerly imported, while low per capita income levels combined in some cases with small populations have not made possible full advantage of economies of scale which has inhibited the development of intermediate and heavy industries.

Mr. President, there cannot be a piecemeal approach to the problem of accelerating the rate of industrialization of the developing countries. A substantial coordinated effort on a large front by both developing and developed countries is a sine qua non for industrial progress to have real meaning in the remainder of this Development Decade and in the nineteen-seventies.

In this connexion, this Symposium will undoubtedly examine in detail the crucial role of capital formation for industrial growth. It has been estimated that, in the second half of the Development Decade, the average annual dollar investment in the manufacturing sector of developing countries is of the order of nine billion dollars. These requirements will progressively increase. Mr. President, it is inescapable that most of these requirements will have to continue, even under ideal conditions

of international assistance, to come from the efforts of domestic savers within the developing countries. The rate of such domestic savings in these countries is, however, limited by generally low levels of per capita incomes. A special challenge before these countries is to secure a most efficient mobilization of potential domestic savings and, further, the most effective allocation of these savings between manufacturing and other sectors of the economy. However, at the same time a substantial inflow of capital funds from the developed industrial countries will be required for some time. This raises a number of issues as regards the forms that financial co-operation and assistance should take and the policies and conditions which should guide their extension and receipt. As regards private investment, ways and means should be found to reconcile entrepreneurial motivation with national interest and national development goals.

Mr. President, in this connexion I would like to note that, as regards foreign resources for all activities in developing countries in recent years, the developed countries have not met the development assistance target of supplying one per cent of their combined national incomes to developing countries, as set by the United Nations General Assembly as far back as 1960.

Mr. President, a gathering such as this cannot ignore the importance of the problems of malnutrition and hunger which face many developing countries today. The Freedom from Hunger Campaign, launched by the Food and Agriculture Organization, has done a great deal to bring these problems into sharp focus in the developed countries. Much has been done in recent years, through generous contributions of food by some food surplus countries, to alleviate the situation, but acute shortages are still prevalent. It should be recognized that such measures of assistance will provide only temporary solutions. In the longer run, the elimination of deficiencies in the supply of food lies in raising the levels of agricultural productivity in the developing countries. This requires a far reaching industrialization of the agricultural techniques. In this respect, accelerated industrialization and the development of modern agriculture are two complementary and mutually supporting processes. The often debated question as to whether a policy of accelerated industrialization by governments of developing countries would conflict with the needs



of agriculture merely puts the problem in the form of a spurious dilemma. A vigorous action of modernization of agriculture presupposes the existence of a strong domestic industrial sector capable of delivering some, if not all, of the required agricultural machinery, and of other industrial products such as fertilizers, pesticides and insecticides. Further, productive agriculture is a necessary complement of a growing industrial sector by providing an adequate supply of food to the growing industrial labour force.

Mr. President, among the other aspects of the process of industrialization, I would like to mention exports of manufactured goods. There are several reasons why promotion of such exports is vital as an element of industrial policy. By developing new and diversified export branches, the export position of the developing countries would be considerably strengthened and their economies less vulnerable to fluctuations in the demand for raw materials on which their exports are largely dependent. The development of export markets, either regionally or internationally, would make possible not only more economic operation of existing industries but also the establishment of new industrial branches where there are favourable conditions of comparative advantage. This would provide the industrial structure of the developing countries with a new dynamism.

Regarding natural resources, many of the developing countries possess large resources of industrial raw materials now generally exported in crude state, whose commercialization on the spot by industrial processing would increase substantially the export proceeds of the countries by the value added in processing. The generalization of this activity, whereby the bulk of industrial processing of raw materials would be relocated from the consuming to the producing countries would not only give a new dimension to industrial development of the developing countries but also imply a new and more equitable international division of labour.

Mr. President, the recently adopted Charter of Algiers has brought to the attention of the international community the United Nations General Assembly resolution which states that the sponsoring body of this Symposium - UNIDO - shall be the competent body to deal with the general and the technical problems of industrialization, including the establishment and expansion of industry in the developing countries. Efforts which are being made at the present time in other bodies of the

United Nations to improve the position of the developing countries in the area of foreign trade, particularly as regards exports of manufactures, will require a simultaneous vigorous effort in increasing substantially the level and quality of industrial production in developing countries.

If the agenda of this Symposium appears to be comprehensive, it nevertheless reflects only to a limited extent the vast issues faced by the world today in the search for solutions of the problem of underdevelopment. Looking beyond the Symposium into the future we are confident that the dialogue once initiated will continue and lead to fruitful and constructive results. The mechanism newly established in the United Nations to deal with the problems of industrialization of the developing countries - the United Nations Industrial Development Organization - provides, jointly with the other interested bodies, and in particular the regional economic commissions, the appropriate framework for stimulating and strengthening international co-operation in this field.

The Charter of Algiers, Mr. President, has just reminded the international community of its obligation to rectify unfavourable trends in developing countries. While insisting that the primary responsibility for their development rests with developing countries themselves, it stresses the important role of concomitant and effective international action. A dynamic development policy in tomorrow's world cannot be derived solely from "traditional approaches, isolated measures and limited concessions". It is my hope that this spirit will permeate your deliberations in the coming weeks.

ANNEX 3 ORGANIZATIONAL MATTERS

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\* The list of the 600 persons attending the Industrial Promotion Service and of those serving as the Secretariat of the IPS is presented in Addendum 1.

(a) GENERAL ASSEMBLY RESOLUTION 2178 (XVI)  
INTERNATIONAL SYMPOSIUM ON INDUSTRIAL DEVELOPMENT

The General Assembly,

Recalling its resolution 1940 (XVIII) of 11 December 1963 and Economic and Social Council resolutions 1030 C (XXXVII) of 13 August 1964 and 1081 B (XXXIX) of 30 July 1965 on the holding of international and regional symposia on industrial development,

Recognizing the importance of the results and recommendations of the regional symposia held at Manila, Cairo and Santiago and of the Conference on Industrial Development in the Arab States held in Kuwait,

Noting with approval the recommendations contained in Economic and Social Council resolutions 1180 (XLI) of 5 August 1966 and 1185 (XLI) of 15, 16 and 17 November 1966 concerning the preparation and organization of the International Symposium on Industrial Development,

Considering that the Symposium, as the first world-wide forum on industrialization to be held under United Nations auspices, is likely to play a significant role in focusing attention on policies and measures aimed at strengthening international co-operation in the field of industrial development and accelerating the industrial development of the developing countries,

1. Endorses the decision of the Economic and Social Council to convene the International Symposium on Industrial Development at Athens in December 1967;
2. Invites the Governments of States Members of the United Nations and members of the specialized agencies, and of the International Atomic Energy Agency to take an active interest in the preparatory work for the Symposium and to ensure their effective participation in it;
3. Calls upon the United Nations Industrial Development Organization to devote all the necessary attention to that preparatory work in order to ensure the success of the Symposium;
4. Invites the specialized agencies, the International Atomic Energy Agency, the regional economic commissions, the United Nations Economic and Social Office in Beirut and the intergovernmental organizations concerned to co-operate actively in the preparatory work for the Symposium;
5. Expresses the hope that the recommendations of the Symposium will give an added impetus to international co-operative efforts aimed, in particular, at achieving the accelerated industrialization of the developing countries;
6. Requests the Industrial Development Board to study in due course the recommendations of the Symposium and to take appropriate follow-up action.

146th plenary meeting, 9 December 1966.

(b) PROVISIONAL AGENDA AND ANNOTATED AGENDA

Provisional Agenda

1. General survey of world industry with special reference to developing countries.
2. Situation, problems and prospects of main industrial sectors.
3. Policies and measures in developing countries:
  - (a) General issues of industrial policy and its implementation;<sup>a/</sup>
  - (b) Formulation and implementation of industrial programmes;
  - (c) Industrial manpower;<sup>b/</sup>
  - (d) Domestic financing of industry;<sup>c/</sup>
  - (e) Administrative machinery for industrial development;
  - (f) Industrial research and other technical services;
  - (g) Promotion of industrial exports and of export-oriented and import-substituting industries;
  - (h) Small-scale industry.
4. International aspects of industrial development:
  - (a) Regional co-operation;
  - (b) External financing;
  - (c) Technical co-operation
5. Adoption of the report of the Symposium

- 
- Including the role of both the public and private sectors.
  - Including training and management.
  - To be taken together with item 4(b).

ANNOTATIONS TO THE PROVISIONAL AGENDA<sup>1/</sup>

ORGANIZATIONAL MATTERS (PROVISIONAL AGENDA ITEMS A-D)

1. The draft rules of procedure for the Symposium (ID/CONF.1/A.2) were recommended by the Economic and Social Council in resolution 1180 (XLI) as amended by resolution 1185 (XLI). The General Assembly approved this recommendation in resolution 2178 (XXI).
2. Rule 5 of the draft rules of procedure states that "the Symposium shall elect a President, three Vice-Presidents and a Rapporteur".
3. Items 1-4 of the provisional agenda were recommended to the International Symposium by the Economic and Social Council in resolution 1180 (XLI) and this recommendation was approved by the General Assembly in resolution 2178 (XXI). In connexion with the provisional agenda, see document ID/CONF.1/49, Memorandum of the Brazilian Delegation on the Agenda of the International Symposium on Industrial Development.
4. Rule 7 of the draft rules of procedure states that "the work of the Symposium shall be conducted in plenary and committee sessions". It is suggested that agenda item 1, General Survey of World Industry with Special Reference to Developing Countries, be discussed in plenary sessions. The Symposium may wish to establish three Committees to deal with items 2-4 of the provisional agenda.
5. Rule 5 of the draft rules of procedure states that "each committee of the Symposium shall elect its own officers" and rule 12 provides that each committee shall be presided over by its own chairman. It is suggested that each committee elect a rapporteur. It is also suggested that special rapporteurs be appointed by the chairmen of the three committees for the sub-items and major sub-divisions of the provisional agenda assigned to these committees. There are 21 sub-items and major sub-divisions for which 21 special rapporteurs will be appointed.

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<sup>1/</sup> These annotations, originally contained in document ID/CONF.1/A.1/Rev.1, are reproduced here to facilitate reference to the documentation submitted to the Symposium; this documentation is classified here by items and sub-items of the agenda.

ASSIGNMENTS OF AGENDA ITEMS TO COMMITTEES

6. It is suggested that agenda items be assigned to the Committees as follows:

Committee I

- 3(c) Industrial manpower;
- 3(e) Administrative machinery for industrial development;
- 3(f) Industrial research and other technical services;
- 3(g) Promotion of industrial exports and of export-oriented and import-substituting industries;
- 3(h) Small-scale industry.

Committee II

2. Situation, problems and prospects of main industrial sectors:

- 2(a) Iron and steel;
- 2(b) Non-ferrous metals;
- 2(c) Engineering industry;
- 2(d) Basic chemicals and petrochemicals;
- 2(e) Synthetic fertilizers;
- 2(f) Processed food;
- 2(g) Textiles;
- 2(h) Building materials and wood products;
- 2(i) Construction industry;
- 2(j) General discussion, including standardisation.

Committee III

- 3(a) General issues of industrial policy and its implementation;
- 3(b) Formulation and implementation of industrial programmes;
- 4(a) Regional co-operation;
- 3(d) Domestic financing of industry and external financing;
- 4(b)
- 4(c) Technical co-operation.

## GENERAL REMARKS ABOUT DOCUMENTATION

### Issue Papers

7. Short papers, so-called "issue papers", have been prepared by the UNIDO Secretariat for each sub-item and major sub-division of the provisional agenda, outlining a number of issues suggested for discussion. Each paper reviews the relevance of the particular sub-item or sub-division of the provisional agenda; presents a selected number of problems in the respective fields; and discusses measures or policies that may be adopted nationally by the developing and developed countries and internationally through inter-governmental action including action through the machinery of the United Nations system<sup>2/</sup>.

### Reports of the Regional Symposia

8. The International Symposium was preceded by four regional symposia: the Asian Conference on Industrialization, held in Manila from 6-20 December, 1965; the Symposium on Industrial Development in Africa, held in Cairo from 27 January to 10 February, 1966; the Symposium on Industrial Development in the Arab Countries, held in Kuwait from 1-10 March, 1966; and the Symposium on Industrial Development in Latin America held in Santiago from 14-25 March, 1966. The reports of these meetings are a key element in the documentation presented to the International Symposium. These reports are listed under item 1 of the agenda because they are relevant to the general discussion; however, they also contain material and recommendations concerning other specific items of the agenda which may be discussed under the appropriate items.

### Documents Submitted to the Symposium

9. As indicated on page 1 of the List of Documents prepared for the Symposium (ID/CONF.1/INF.2), some of the documents submitted to the Symposium were in the four working languages - English, French, Spanish and Russian; others have been prepared in the original language only<sup>3/</sup>. Because of their nature, a number of documents have been listed under more than one sub-item or sub-division of the provisional annotated agenda.

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<sup>2/</sup> No "issue paper" has been presented for item 1 in view of the submission of document ID/CONF.1/4.3, "Problems and Issues of Industrial Development" which discusses the main issues in the process of industrialization of developing countries.

<sup>3/</sup> The list of documents prepared for the Symposium is annexed to this report as Annex 3(e). A list of unofficial documents distributed at the Symposium, classified by item and sub-item of the agenda, appears in Annex 3(f).



CLASSIFICATION OF DOCUMENTATION BY AGENDA ITEM

AGENDA ITEM 1: GENERAL SURVEY OF WORLD INDUSTRY WITH PLENARY  
SPECIAL REFERENCE TO DEVELOPING COUNTRIES

As a basis for the discussion of specific aspects of industrial development, it is proposed that the Symposium begin with a general discussion of the recent evolution and characteristics of the industrial sector in developing countries. Consideration would be given to the comparative features of industrial growth in the several regions and to the growth of industry within the framework of world industrial growth. Documents submitted to the Symposium under this item are as follows:

		<u>Presented by</u>
<u>General documentation</u>		
ID/CONF.1/A.3	Problems and Issues of Industrial Development	UNIDO
ID/CONF.1/46 and Add.1	Industrial Development Survey	UNIDO
<u>Reports of regional symposia and other documentation dealing with regional problems</u>		
(a) <u>Asian Conference on Industrialization</u>		
ID/CONF.1/R.R./2 and Corr.1	Report of the Asian Conference on Industrialization	ECAFE
ID/CONF.1/R.B.P./2 and Corr.1	Industrial development in Asia and the Far East	ECAFE
Vol. I	Progress and problems of industrialization	
Vol. II and III	Country studies: Afghanistan, Australia, Brunei, Burma, Cambodia, Ceylon, Republic of China, Hong Kong, India, Indonesia, Iran, Japan, Republic of Korea, Laos, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Singapore, Thailand, Republic of Viet-Nam	
Vol. IV	Development of Key Industries	
ID/CONF.1/B.5	Major Activities of the ECAFE Secretariat in the field of industrial development since the conclusion of the First Asian Conference on Industrialization. (A summary of this document is available as ID/CONF.1/37.)	ECAFE

Agenda item 1 (continued)

Presented by

(b) Symposium on Industrial Development in Africa

ID/CONF.1/R.R./1 and Corr.1	Report of the Symposium on Industrial Development in Africa	ECA
ID/CONF.1/R.B.P./1	Industrial development in Africa	ECA
Part I	Progress and problems of industrialization	
Part II	Country studies: Cameroon, Ethiopia, Kenya, Niger, Sudan, United Arab Republic, Zambia	
ID/CONF.1/52	Activities of the United Nations System of Organizations in the Field of Industrial Development: Activities of the Economic Commission for Africa in the field of Industrial Development	ECA and UNIDO

(c) Symposium on Industrial Development in Latin America

ID/CONF.1/R.R./3 and Corr.1	Report of the Symposium on Industrial Development in Latin America	ECLA
ID/CONF.1/R.B.P./3 and Adds.1-16 and Add.6, Corr.1	Industrial Development in Latin America - Country Studies: Argentina, Bolivia, Brazil, Central America, Colombia, Cuba, Chile, Ecuador, Guyana, Mexico, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela	ECLA
ID/CONF.1/R.B.P./4	The main sectors of Latin American Industry	ECLA
ID/CONF.1/R.B.P./5	The process of industrialization in Latin America	ECLA
ID/CONF.1/B.33	Notes on Industrial Development Strategy in Latin America	IAIESP

(d) Symposium on Industrial Development in Arab Countries

ID/CONF.1/R.R./4	Report of the Symposium on Industrial Development in Arab Countries	UNIDO
ID/CONF.1/R.B.P./6	Industrial Development in the Arab Countries	UNESOB
Part I	Progress and Problems	
Part II	Development of Key Industries	

Agenda item 1 (continued)

Presented by

Part III	Country studies: Iraq, Jordan, Kuwait, Lebanon, Saudi Arabia, Yemen	
ID/CONF.1/B.25	Industrial Development in Countries of the Middle East	UNESCO
(e) <u>Europe</u>		
ID/CONF.1/G.32 and SUMMARY	Recent Developments in Industrialisation in the Maltese Islands	Malta
ID/CONF.1/G.52 and SUMMARY	The Industrialisation of the People's Republic of Bulgaria: Its Nature, Present State and Prospects	Bulgaria
ID/CONF.1/G.54 and SUMMARY	The Experiences of the Industrialisation of Slovakia	Czechoslovakia
ID/CONF.1/G.67 and SUMMARY	Position, Problems and Perspectives of the Development of Major Branches of Industry: The Case of the Ukrainian SSR	Ukrainian SSR
ID/CONF.1/G.20	The Development and Characteristics of the Social Organization of Yugoslav Industry	Yugoslavia
<u>Other documentation</u>		
ID/CONF.1/41	Advance Report on the Industrialization Project Conducted by the Development Centre of OECD	OECD
ID/CONF.1/14	Policies, Planning and the Economic, Social and Institutional Aspects of Industrial Development based on Agricultural, Forestry and Fishery Resources	FAO
ID/CONF.1/15	Requisites of Production, Processing and Utilization to Develop Agriculture, Forestry and Fisheries	FAO
ID/CONF.1/B.12	Application of Nuclear Energy for Power Production and for Water Desalination	IAEA
ID/CONF.1/G.8 and SUMMARY	The Role of Geological Prospecting in Speeding up Industrial Development*	Byelorussian SSR

Agenda item 1 (continued)

		<u>Presented by</u>
ID/CONF.1/B.51 SUMMARY	Accelerating Industrial Progress in Developing Countries	Israel
ID/CONF.1/B.70	The Position of the Swiss Government with regard to the Problems of Industrial Development*	Switzerland
ID/CONF.1/B.70	Organization of Industrial Statistics in Yugoslavia	Yugoslavia

AGENDA ITEM 2: SITUATION, PROBLEMS AND PROSPECTS OF  
MAIN INDUSTRIAL SECTORS

COMMITTEE II

Selected sectors of industry will be reviewed to appraise their potential growth in the developing regions within the framework of the world-wide development of each industry. Characteristics of demand, trends in productivity, capital requirements in the sectors and international trade will be surveyed, together with a consideration of technological and economic factors affecting industrial feasibility.

It is proposed that this agenda item be discussed under the following major sub-divisions; for each of which an "issue paper" has been prepared: iron and steel; non-ferrous metals; engineering; chemicals; fertilizers, food processing; textiles; building materials and wood products and construction industries; and general discussion, including standardization. As indicated above, the reports of the regional symposia on industrial development listed under Agenda item 1, deals also with certain aspects of Agenda item 2.

Documents to the Symposium under this item are listed on the following pages (pages 11-14).

Agenda item 2 (continued)

Presented by

IRON AND STEEL INDUSTRY

Issue paper

ID/CONF.1/A.4      Issues for Discussion: Iron and Steel Industry      UNIDO  
and Corr.1

Other Documentation

ID/CONF.1/34      Sectoral Study: Iron and Steel Industries      UNIDO

ID/CONF.1/42      Sectoral Study: Iron Ore Industry      ECE

ID/CONF.1/B.23      Economies of Scale at Small Integrated Steelworks      ECLA  
and Corr.1

ID/CONF.1/G.40      Ways of Developing the Iron and Steel Industry      USSR  
and SUMMARY      to Meet the Requirements of the Developing Countries

NON-FERROUS METALS INDUSTRY

Issue paper

ID/CONF.1/A.5      Issues for Discussion: Non-ferrous Metals Industry      UNIDO

Other documentation

ID/CONF.1/43      Sectoral Study: Non-ferrous Metals Industry      UNIDO

ID/CONF.1/G.48      Development and Situation of the Aluminium      Hungary  
and SUMMARY      Industry in Hungary

ENGINEERING INDUSTRY

Issue paper

ID/CONF.1/A.6      Issues for Discussion: Engineering Industry      UNIDO

Other documentation

ID/CONF.1/2      Sectoral Study: Engineering Industries      UNIDO

Agenda item 2 (continued)

		<u>Presented by</u>
ID/CONF.1/B.20	Mechanical Industries and Industrialization: Economic Aspects of Mechanical Industries	ECE
ID/CONF.1/G.65 and SUMMARY	The Role of Engineering Industries in the In- dustrialization of Developing Countries	USSR
ID/CONF.1/G.75 and SUMMARY	Heavy Transport and Industrial Development: The Berliet Company Experience	France
ID/CONF.1/G.76	Automobile Assembly Plants as a Factor in the Industrial Expansion of Developing Countries: The Example of Renault*	France

BASIC CHEMICALS AND PETROCHEMICALS INDUSTRY

Issue Paper

ID/CONF.1/A.7	Issues for Discussion: Chemical Industry	UNIDO
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Other Documentation

ID/CONF.1/25	Sectoral Study: Chemical Industry	UNIDO
ID/CONF.1/G.5 and SUMMARY	Petrochemicals in Developing Countries	Netherlands
ID/CONF.1/G.78 and SUMMARY	Construction of an Entirely Automatic Sulphuric Acid Plant*	France
ID/CONF.1/G.73 and SUMMARY	Establishment of Manufacturing Units for Pharma- ceuticals in Developing Countries	Sweden
ID/CONF.1/G.60	Evolution of the Greek Petrochemical Industry	Greece

SYNTHETIC FERTILIZERS INDUSTRY

Issue paper

ID/CONF.1/A.8	Issues for Discussion: Fertilizer, Pesticides and Insecticides Industries	UNIDO
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Other documentation

ID/CONF.1/38	Sectoral Study: Fertilizer Industry	UNIDO
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Agenda item 2 (continued)

		<u>Presented by</u>
ID/CONF.1/B.22	Trends and Prospects of World Fertilizer Production Capacity as Related to Future Needs	UNIDO
ID/CONF.1/G.2 SUMMARY	Preparing a Fertilizer Project in a Developing Country	Netherlands
ID/CONF.1/G.3 SUMMARY	Some Aspects of the Infrastructure Needed to Ensure the Successful Operation of Fertilizer Plants in Developing Countries	Netherlands

PROCESSED FOOD INDUSTRY

Issue paper

ID/CONF.1/A.9	Issues for Discussion: Food Processing Industry	UNIDO
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Other documentation

ID/CONF.1/26	Sectoral Study: The Food Processing Industries	UNIDO
ID/CONF.1/16	Food and Food Products Industries	FAO
ID/CONF.1/19	Fisheries Industries	FAO

TEXTILE INDUSTRY AND OTHER LIGHT INDUSTRIES

Issue paper

ID/CONF.1/A.10	Issues for Discussion: The Textile Industry	UNIDO
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Other documentation

ID/CONF.1/21	Sectoral Study: Textile Industries	UNIDO
ID/CONF.1/17	Industries Processing Agricultural Commodities Other than Food	FAO
ID/CONF.1/G.59	The Textile Industry in Greece	Greece

Agenda item 2 (continued)

Presented by

BUILDING MATERIALS AND WOOD PRODUCTS INDUSTRY

Issue paper

ID/CONF.1/A.11 Issues for Discussion: Building Materials and Components Industries UNIDO

Other documentation

ID/CONF.1/23 Sectoral Study: Building Materials, Including Wood Products ECE

ID/CONF.1/18 Forest and Forest Products Industries FAO

CONSTRUCTION INDUSTRY

Issue paper

ID/CONF.1/A.12 Issues for Discussion: The Construction Industry UNIDO

Other documentation

ID/CONF.1/34 Sectoral Study: Construction Industry UNIDO

ID/CONF.1/S.41 and SUMMARY Development of the Building and Construction Industry USSR

GENERAL DISCUSSION, INCLUDING STANDARDIZATION AND QUALITY CONTROL

Issue paper

ID/CONF.1/A.13 Issues for Discussion: Standardization UNIDO

Other documentation

ID/CONF.1/8 Industrial Development and Standardization UNIDO and ECAFE

ID/CONF.1/S.11 Industrial Applications of Radioisotopes IAEA

ID/CONF.1/G.4 and SUMMARY Quality Control and Standardization as Conditions of Industrial Growth Netherlands



AGENDA ITEM 3: POLICIES AND MEASURES IN DEVELOPING COUNTRIES

COMMITTEE I AND  
COMMITTEE III

Agenda item 3a: General issues of industrial policy  
and its implementation including the  
role of both the public and private  
sectors

COMMITTEE III

In the development of a general industrial strategy, a number of issues require consideration, both individually and with reference to the objective of achieving a coherent and effective policy for the industrial sector as a whole. These include policies concerning the relationship between industry and the rest of the economy, and within the industrial sector itself, including the social aspects of industrialization. The following documents are submitted under this sub-item of the agenda:

Presented by

Issue Papers

- |                |                                                                       |       |
|----------------|-----------------------------------------------------------------------|-------|
| ID/CONF.1/A.14 | Issues for Discussion: General Policies - Economic and Social Aspects | UNIDO |
| ID/CONF.1/A.3  | Problems and Issues of Industrial Development                         | UNIDO |

I. ECONOMIC ASPECTS

(a) Strategy of Industrialization and the Structure of the Economy

- |                               |                                                                                                                            |                     |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------|
| ID/CONF.1/G.47                | The Role of the Industrial Sector in Economic Development                                                                  | UNIDO               |
| ID/CONF.1/G.12<br>and SUMMARY | Diversification of the Economy and Strategy of Industrial Development                                                      | USSR                |
| ID/CONF.1/G.9<br>and SUMMARY  | The Establishment of the Agricultural Processing Industry and Its Role in the Development of other Branches of the Economy | Byelorussian<br>SSR |
| ID/CONF.1/G.26                | The Function and Importance of Integrated Agricultural Organizations in the Development of Agriculture and Food Industries | Yugoslavia          |
| ID/CONF.1/G.30<br>and SUMMARY | The Industrial Development Policy of Yugoslavia                                                                            | Yugoslavia          |

Agenda item 3a (continued)

		<u>Presented by</u>
ID/CONF.1/G.21 and SUMMARY	Integration, Specialization and Co-operation in the Industry of Yugoslavia	Yugoslavia
ID/CONF.1/G.22 and SUMMARY	Choice of Trends and Methods of Industrial Development in Yugoslavia	Yugoslavia
 (b) <u>Public and Private Sectors</u>		
ID/CONF.1/B.13	Policies and Plans of Developing Countries Re- garding the Public Sector in Manufacturing In- dustries	UNIDO
ID/CONF.1/G.14 and SUMMARY	The Role of the State and the State Sector in the Industrialization of the Developing Countries	USSR
ID/CONF.1/G.80 SUMMARY	The Role of the Private Economic Sector in the Industrialization Process of the Developing Countries	Switzerland
 (c) <u>Fiscal Policy</u>		
ID/CONF.1/B.2 and Corr.1	Tax Incentives for Industrial Development A summary of this document is available as ID/CONF.1/22	UNIDO
 (d) <u>Employment and Wage Policy</u>		
ID/CONF.1/B.18	Employment Aspects of Industrialization	ILO
ID/CONF.1/P.16	Wages and Industrial Development	ILO
ID/CONF.1/B.15	Surplus Agricultural Labour and the Development of Industry	UNIDO
ID/CONF.1/G.61	Industrialization and Employment in Greece	Greece
ID/CONF.1/G.71 and SUMMARY	Manpower Policy: A Swedish Example	Sweden

Agenda item 3a (continued)

Presented by

(e) Transfer of Technology

ID/CONF.1/B.17	Progressive Industrial Technology for Developing Countries	ILO
ID/CONF.1/G.37 and SUMMARY	Science and Industrial Development	USSR
ID/CONF.1/53 and Corr.1	Application of Science and Technology to Development: Arrangements for the Transfer of Operative Technology to Developing Countries - Progress Report	UN:ESA
ID/CONF.1/54	Financing of Economic Development: Promotion of Foreign Private Investment in Developing Countries: Summary and Conclusions	UN:ESA

(f) Other Documentation on Economic Aspects

ID/CONF.1/14	Policies, Planning and the Economic, Social and Institutional Aspects of Industrial Development Based on Agricultural, Forestry and Fishery Resources	FAO
ID/CONF.1/G.34 and Add.1 and SUMMARY	Some Industrialization Aspects of Densely Populated Areas	Netherlands
ID/CONF.1/G.35 and SUMMARY	Distribution Channels	Netherlands

2. SOCIAL ASPECTS INCLUDING HEALTH

ID/CONF.1/39	The Social Aspects of Industrial Development	UNESCO
ID/CONF.1/B.7	Social Aspects of Industrialization*	ILO
ID/CONF.1/36	The Health Aspects of Industrialization	WHO
ID/CONF.1/B.6	Planning for Industrial Safety and Health in the Place of Work. A Summary of this document is available as ID/CONF.1/35	ILO

Agenda item 3b: Formulation and implementation of industrial programmes COMMITTEE III

The translation of policy decisions into a coherent programme of industrial development may be discussed under two headings:

1. Problems of planning and programming for the industrial sector as a whole;
2. Formulation, evaluation, implementation and follow-up of industrial projects.

The following documents are submitted under this sub-item of the agenda:

<u>Issue paper</u>		<u>Presented by</u>
ID/CONF.1/A.16	Issues for Discussion: Formulation and Implementation of Industrial Programmes	UNIDO
1. <u>Problems of planning and programming for the industrial sector as a whole</u>		
ID/CONF.1/G.15 and SUMMARY	The Use of Input-Output Analysis in the Preparation of Economic Development Programmes	USSR
ID/CONF.1/G.26 and SUMMARY	Projections of the Industrial Structure in Middle-term Industrialization Plans	Yugoslavia
ID/CONF.1/12	Industrial Location Planning	UNIDO
ID/CONF.1/27	Industrial Location Policies and Policy Measures in Developing Countries	UNIDO
ID/CONF.1/G.63 SUMMARY	Location of National Industry within a Wider Economic Context	Greece
ID/CONF.1/G.38 and SUMMARY	Principles and Models of Industrial Location	USSR
ID/CONF.1/15	Requisites of Production, Processing and Utilization to Develop Agriculture, Forestry and Fisheries	FAO
ID/CONF.1/G.57	Formulation and Implementation of Industrial Programmes: The Greek Experience	Greece

Agenda item 3b (continued)

		<u>Presented by</u>
ID/CONF.1/G.17	The "Cassa per il Mezzogiorno" and the Industrial Development of Southern Italy	Italy
ID/CONF.1/G.47	The Location of Industries in the Socialist Republic of Romania	Romania
ID/CONF.1/G.27 and SUMMARY	Yugoslavia's Industrialization and the Development of her Under-developed Regions	Yugoslavia
ID/CONF.1/G.25 and SUMMARY	Self-management and the Planning System in Yugoslavia with Special Reference to Industry	Yugoslavia
2.	<u>Formulation, evaluation, implementation and follow-up of industrial projects</u>	
ID/CONF.1/3	Implementation of Industrial Projects	UNIDO
ID/CONF.1/4	The Role of Policy-makers in Project Formulation and Evaluation	UNIDO
ID/CONF.1/B.3	Criteria for the Location of Industrial Plants (Changes and Problems)	ECE
ID/CONF.1/G.10 SUMMARY	Methods and Models of Location of Industrial Plants	Byelorussian SSR
ID/CONF.1/G.44 and SUMMARY	Some Views on Feasibility Studies of Industrial Projects in Developing Countries	U.K.

Agenda item 3c: Industrial manpower, including training and management COMMITTEE I

Discussion of problems in the field of industrial manpower may include such topics as an assessment of manpower requirements for industrial development, programmes for manpower development for industry in developing countries and the contribution that international action could make to assist the developing countries in formulating and implementing manpower training programmes. The following documents are submitted under this sub-item of the agenda:

		<u>Presented by</u>
<u>Issue paper and general statement of the problems</u>		
ID/CONF.1/A.17	Issues for Discussion: Industrial Manpower	UNIDO
ID/CONF.1/30	Issues and Problems in Manpower Development for Industrialization	UNIDO and ILO
ID/CONF.1/31	Skill Requirements for Industrialization	UNIDO and ILO
ID/CONF.1/32	Effective Utilization of Manpower for Industrialization	UNIDO and ILO
ID/CONF.1/33	Education and Training Programmes for Industrialization	UNIDO and ILO
<u>Other documentation</u>		
ID/CONF.1/B.1	The Supply of Skills to the Industrial Sector in Developing Countries	UNIDO
ID/CONF.1/B.21	Education and Training Programmes for Industrialization	UNESCO
ID/CONF.1/G.55 and SUMMARY	Some Views on Manpower in Economic Development	Sweden
ID/CONF.1/G.7 and SUMMARY	Programming and Designing of Technical Training Centres	Netherlands
ID/CONF.1/B.19	Training for Small Manufacturing Enterprises in Developing Countries	ILO
ID/CONF.1/G.79	Vocational Training and Education for Small and Medium-size Enterprises	Israel



Agenda item 3c (continued)

		<u>Presented by</u>
ID/CONF.1/G.72 and SUMMARY	The Role of Trade Unions in Industrial Develop- ment	Sweden
ID/CONF.1/G.24 and SUMMARY	The Function and Growth of Personnel in Yugoslavia's Industrial Development	Yugoslavia
ID/CONF.1/G.66 and SUMMARY	Policies and Measures Taken by the Government for the Training of Workers and Specialists in Connexion with Industrialization: The Case of the Ukrainian SSR	Ukrainian SSR
ID/CONF.1/G.71 and SUMMARY	Manpower Policy: A Swedish Example	Sweden

Agenda item 3d: Domestic financing of industry

COMMITTEE III

This item is to be considered together with Agenda item 4b.

It is suggested that the discussion of the financial requirements of the industrial sector include such topics as the financial structure and financial planning of industrial enterprises; the need for long-term capital; the provision of working capital for industry, and the various domestic sources of financing. The following documents are submitted under this sub-item of the agenda:

		<u>Presented by</u>
<u>Issue paper</u>		
ID/CONF.1/A.18	Issues for Discussion: Domestic Financing	UNIDO
<u>Other documentation</u>		
ID/CONF.1/7	Domestic Financing of Industrial Development	UNIDO
ID/CONF.1/B.8	The Role of National Development Finance Companies in Industrial Development	World Bank Group
ID/CONF.1/B.9	Measures to Increase Commercial Bank Financing of Industry in Developing Countries	UNIDO
ID/CONF.1/G.19 and SUMMARY	Financing of Industrial Development in Yugoslavia	Yugoslavia
ID/CONF.1/G.33 and SUMMARY	Redeployment of Private Capital in Developing Countries	Netherlands
ID/CONF.1/G.58	Domestic Financing of Industry	Greece
ID/CONF.1/G.69 SUMMARY	Some Aspects of the Financing of Industrialization in Developing Countries	Netherlands



ID/B/21  
(ID/CONF.1/62)  
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Agenda item 3e: Administrative machinery for industrial  
development

COMMITTEE I

The discussion could relate to the structure and role of public and semi-public agencies concerned with industrial development, and the trends in institutional arrangements for the development and promotion of industrial projects. The following document is submitted under this sub-item:

Issue paper

ID/CONF.1/A.19

Issues for Discussion: Administrative Machinery  
for Industrial Development

Presented by

UNIDO

Agenda item 3f: Industrial research and other technical services

COMMITTEE I

This item may be considered under two headings:

1. The organization of industrial research and the provision of other technical services, including the use of consulting services for industry;
2. Measures for the transfer of industrial information.

The following documents are submitted under this sub-item:

Presented by

1. The organization of industrial research and other technical services, including consulting services

Issue paper

ID/CONF.1/A.20      Issues for Discussion: Industrial Research      UNIDO

Other documentation

ID/CONF.1/B.14      The Organization of Industrial Research in Developing Countries. A summary of this document is available as ID/CONF.1/28      UNIDO

ID/CONF.1/5      The Use of Industrial Consultants in Developing Countries      UNIDO

ID/CONF.1/B.10      Industrial Consultation Services in Europe. A summary of this document is available as ID/CONF.1/10 and Corr.1.      UNIDO

ID/CONF.1/G.1 and SUMMARY      Practice of Industrial Research and Development      Netherlands

ID/CONF.1/G.4 and SUMMARY      Quality Control and Standardization as Conditions of Industrial Growth      Netherlands

ID/CONF.1/G.18 and SUMMARY      Research and Development in Yugoslav Industry      Yugoslavia

ID/CONF.1/G.42 and SUMMARY      Influence of the Technical Research Revolution on the Development of the Extractive Industry in Asia and Africa      USSR

Agenda item 3f (continued)

ID/CONF.1/G.81      The Importance of Patents for the Technical  
SUMMARY              Progress of Developing Countries

Presented by  
Switzerland

2. Measures for the transfer of industrial information

Issue paper

ID/CONF.1/A.21      Issues for Discussion: Industrial Information      UNIDO

Other documentation

ID/CONF.1/40      Technical Information Services for Industry      UNIDO

ID/CONF.1/53      Application of Science and Technology to Develop-      UN:ESA  
and Corr.1          ment: Arrangements for the Transfer of Operative  
Technology to Developing Countries - Progress  
Report

ID/CONF.1/B.4      Scientific and Technical Documentation      UNESCO

ID/CONF.1/G.74      United Kingdom Contributions to Technological      U.K.  
and SUMMARY          Development in Developing Countries

Agenda item 3g: Promotion of industrial exports and  
of export-oriented and import-substi-  
tuting industries

COMMITTEE I

In the discussion, it is proposed to examine the problems of developing certain branches of industry as sources of industrial exports. This includes further industrial processing of products of mineral or vegetable origin that are now being exported in crude or semi-finished form. The following documents are submitted under this sub-item:

		<u>Presented by</u>
<u>Issue paper</u>		
ID/CONF.1/A.22	Issues for Discussion: Promotion of Exports	UNIDO
<u>Other documentation</u>		
ID/CONF.1/56	The Need for an Export-oriented Pattern of Industrialization	UNIDO
ID/CONF.1/55 and Add.1	Export Credits and Development Financing: Part One: Current Practices and Problems; Part Two: National Export Credit Systems	UN:ESA
ID/CONF.1/13 and Corr.1	Survey of Export Promotion Techniques	UNIDO
ID/CONF.1/B.24	Export Marketing Organizations	UNIDO
ID/CONF.1/B.33	Notes on Industrial Development Strategy in Latin America	IAIESP
ID/CONF.1/G.46 SUMMARY <sup>4/</sup>	Technology and World Trade	U.S.A.
ID/CONF.1/B.26	Measures for Increasing the Exports and Export Potential of Forest Products from Developing Countries	UNCTAD
ID/CONF.1/B.27	Prospects for Exports of Processed Iron Ore from Developing Countries	UNCTAD

<sup>4/</sup> This document is a summary of a U.S. Government document bearing the same title, and is issued in English, French, Spanish and Russian.

Agenda item 3g (continued)

		<u>Presented by</u>
ID/CONF.1/B.28	Export Trade in Fishery Products from Developing Countries	UNCTAD
ID/CONF.1/B.29, 30, 31 and 32	Short and Medium-term Prospects for Export of Manufactures from Selected Developing Countries: Argentina, Brazil, Chile, Thailand	UNCTAD
ID.CONF.1/G.11 and SUMMARY	Problems of the Development of Export-oriented Industries in Developing Countries with Regard to the Expansion of Their Co-operation with Socialist Countries	USSR
ID/CONF.1/G.29 and SUMMARY	The Industrialization of Yugoslavia and the Inclusion of Yugoslav Industry in the International Division of Labour	Yugoslavia
ID/CONF.1/G.45 and SUMMARY	United States Programmes and Activities Contributing to the Industrialization of Developing Countries	U.S.A.
ID/CONF.1/G.49 and SUMMARY	Hungary and Industrialization in the Developing Countries	Hungary
ID/CONF.1/G.50 and SUMMARY and Corr.1	Forms of Czechoslovakia's Economic Relations with Developing Countries and Its Contribution to the Latter's Industrialisation	Czechoslovakia

Agenda item 3h: Small-scale industry

COMMITTEE I

The discussion would relate to an assessment of the potentialities as well as limitations of small-scale industry in developing countries and of its place in the industrialization programmes of developing countries. Particular attention would be paid to the role of industrial estates in this area. The following documents are submitted under this sub-item:

		<u>Presented by</u>
<u>Issue paper</u>		
ID/CONF.1/A.23	issues for Discussion: Small-scale Industry	UNIDO
<u>Other documentation</u>		
ID/CONF.1/6 and Corr.1	Policies and Programmes for the Development of Small-scale industry	UNIDO
ID/CONF.1/29 and Corr.1	Policies and Programmes for the Establishment of Industrial Estates	UNIDO
ID/CONF.1/G.16 and SUMMARY	Possibilities of Utilizing Small-scale Industry in the Progress of Economic Development	USSR
ID/CONF.1/B.19	Training for Small Manufacturing Enterprises in Developing Countries	ILO
ID/CONF.1/G.79	Vocational Training and Education for Small and Medium-size Enterprises	Israel
ID/CONF.1/G.62	Problems and Limitations of Small-scale Industry: The Greek Experience	Greece
ID/CONF.1/G.68 and SUMMARY	Small-scale Industry in Yugoslavia	Yugoslavia

AGENDA ITEM 4: INTERNATIONAL ASPECTS OF INDUSTRIAL DEVELOPMENT

COMMITTEE III

Agenda item 4a: Regional co-operation

It is proposed that the discussion take up the various factors involved in regional or sub-regional industrial co-operation among developing countries, and the policies of promoting such co-operation. The following documents are submitted under this sub-item of the agenda:

		<u>Presented by</u>
<u>Issue paper</u>		
ID/CONF.1/A.24	Issues for Discussion: Regional Co-operation	UNIDO
<u>Other documentation</u>		
ID/CONF.1/11	Regional Integration and the Industrialization of Developing Countries	UNIDO
ID/CONF.1/G.36 and SUMMARY	Co-operation between Countries as a Factor of Economic Development	USSR
ID/CONF.1/G.39 and SUMMARY	Economic Regionalism as a Method for Co-ordinating Economic Development in Africa	USSR
ID/CONF.1/B.33	Notes on Industrial Development Strategy in Latin America	LAIESP

Agenda item 4b: External financing

COMMITTEE III

The discussion under this topic, which is to be considered together with sub-item 3d, would deal with the means of meeting the financial requirements of the industrial sector from external sources. Attention would be given to the provision of financing through international institutions, bilateral governmental programmes and private sources. The following documents are submitted under this sub-item of the agenda:

		<u>Presented by</u>
<u>Issue paper</u>		
ID/CONF.1/A.25	Issues for Discussion: External Financing	UNIDO
<u>Other documentation</u>		
ID/CONF.1/1 and Corrs. 1 and 2	Official Bilateral Financial Assistance for the Manufacturing Industry of the Developing Countries	UNIDO
ID/CONF.1/54	Financing of Economic Development: Promotion of Private Foreign Investment in Developing Countries: Summary and Conclusions	UN:ESA
ID/CONF.1/9	A Summary of Activities of the World Bank Group in the Industrial Field	World Bank Group
ID/CONF.1/44 and Corr.1	Financial Assistance by OECD Members for Industrial Development in Developing Countries	OECD
ID/CONF.1/55 and Add.1	Export Credits and Development Financing: Part One: Current Practices and Problems; Part Two: National Export Credit Systems	UN:ESA
ID/CONF.1/G.33 and SUMMARY	Redeployment of Private Capital in Developing Countries	Netherlands
ID/CONF.1/G.64 SUMMARY	External Financing of Industrial Development: Some Proposals to Encourage the Flow of Private Capital	Greece
ID/CONF.1/G.69 SUMMARY	Some Aspects of the Financing of Industrialization in Developing Countries	Netherlands
ID/CONF.1/G.23 and SUMMARY	The Financing of Economic Development of Yugoslavia from Foreign Source	Yugoslavia



Agenda item 4b (continued)

		<u>Presented by</u>
ID/CONF.1/G.43 and SUMMARY	Some Aspects of United Kingdom Experience in Arranging the Financing of Industrial Projects in Developing Countries	U.K.
ID/CONF.1/G.45 and SUMMARY	United States Programmes and Activities Contri- buting to the Industrialization of Developing Countries	U.S.A.
ID/CONF.1/G.77	Financial Aid by France for the Industrialization of the Developing Countries	France

Agenda item 4c: Technical co-operation

COMMITTEE III

The proposed discussion under this item relates to the various programmes of technical co-operation in industry with a view to reviewing the problems arising in the existing programmes and examining the possibilities of improving and strengthening such co-operation. The following documents are submitted under this sub-item of the agenda:

		<u>Presented by</u>
<u>Issue paper</u>		
ID/CONF.1/A.15	Issues for Discussion: Technical Co-operation	UNIDO
<u>Other documentation</u>		
ID/CONF.1/48 and Add. 1 and 2	United Nations Industrial Development Organization Programme of Special Industrial Services	UNIDO
ID/CONF.1/51	Activities of the United Nations System of Organizations in the Field of Industrial Develop- ment: Summary Data on Operational Activities of the Centre for Industrial Development <sup>5/</sup>	UNIDO
ID/CONF.1/50	Activities of the United Nations System of Organizations in the Field of Industrial Develop- ment	UNIDO
ID/CONF.1/B.1	The Supply of Skills to the Industrial Sector in Developing Countries	UNIDO
ID/CONF.1/20 and Corr.1	FAO Programme of Work and Industry Support Under the Freedom from Hunger Campaign	FAO
ID/CONF.1/45 and Corr.1	Technical Assistance by OECD Members for Industrial Development in Developing Countries	OECD
ID/CONF.1/G.6 and SUMMARY	The Development Cycle Applied to Low-cost Housing	Netherlands

<sup>5/</sup> This document surveys the United Nations activity in technical co-operation in industry up to the end of 1966. Data on the technical co-operation programmes of UNIDO for 1967 and 1968 are given in the Work Programme of UNIDO for 1968 (document ID/3/20), an advance copy of which has been submitted for information to the General Assembly.

Agenda item 4c (continued)

		<u>Presented by</u>
ID/CONF.1/G.13 and SUMMARY	Experience of Socialist Countries' Co-operation in the Field of Industrialization	USSR
ID/CONF.1/G.28 and SUMMARY	Yugoslavia's Co-operation with the Developing Countries with a View to Their Industrialization	Yugoslavia
ID/CONF.1/G.31 SUMMARY	Netherlands Technical Aid for Industrialization	Netherlands
ID/CONF.1/G.36 and SUMMARY	Co-operation between Countries as a Factor of Economic Development	USSR
ID/CONF.1/G.45 and SUMMARY	United States Programmes and Activities Contri- buting to the Industrialization of Developing Countries	U.S.A.
ID/CONF.1/G.46 SUMMARY <sup>6/</sup>	Technology and World Trade	U.S.A.
ID/CONF.1/G.49 and SUMMARY	Hungary and Industrialization in the Developing Countries	Hungary
ID/CONF.1/G.50 and SUMMARY and Corr.1	Forms of Czechoslovakia's Economic Relations with Developing Countries and Its Contribution to the Latter's Industrialization	Czechoslovakia
ID/CONF.1/G.53 and SUMMARY	Economic and Technical Co-operation between the People's Republic of Bulgaria and the Developing Countries	Bulgaria
ID/CONF.1/G.75 SUMMARY	Heavy Transport and Industrial Development: The Berlist Company Experience	France
ID/CONF.1/G.82	Activities of the Office of the Swiss Technical Co-operation in the Field of Industrial Develop- ment	Switzerland

<sup>6/</sup> This document is a summary of a U.S. Government document bearing the same title, and is issued in English, French, Spanish and Russian.

(c) RULES OF PROCEDURES FOR THE INTERNATIONAL SYMPOSIUM  
ON INDUSTRIAL DEVELOPMENT. <sup>1/</sup>

I. Agenda, participation and credentials

Rule 1

The Symposium shall consider items included in the provisional agenda prepared by the Secretary-General of the United Nations and approved by the Economic and Social Council.

Rule 2

Each State invited to the Symposium may be represented by such number of representatives and advisers as may be required to ensure adequate discussion of the topics of the agenda.

Rule 3

The list of representatives of each participating State shall be issued either by the Head of State or Government or by the Minister of Foreign Affairs or his nominee, and communicated to the Secretary-General of the United Nations.

Rule 4

Representatives of the specialized agencies and the International Atomic Energy Agency and of intergovernmental bodies invited to the Symposium may participate, without the right to vote, in the deliberations of the Symposium and its committees.

Written statements of such specialized agencies and intergovernmental bodies shall be distributed by the Secretariat to the delegations at the Symposium.

II. Officers and secretariat of the Symposium

Rule 5

The Symposium shall elect a President, three Vice-Presidents and a Rapporteur.

Each Committee of the Symposium shall elect its own officers.

Rule 6

The Executive Secretary of the Symposium appointed by the Secretary-General of the United Nations, shall be responsible for the preparation of the conference and

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<sup>1/</sup> Draft rules presented to the Symposium in document ID/CONF.1/A.2/Rev.1.  
Adopted without change - see para. 12 of the report.

all necessary arrangements for meetings. The staff required for the Symposium shall be provided by the Secretary-General of the United Nations.

The Executive Secretary of the Symposium or any member of the Symposium staff designated for that purpose may, subject to the provisions of rule 8, make oral as well as written statements to the Symposium concerning any matter relating to it.

### III. Organisation of the work of the Symposium

#### Rule 7

The work of the Symposium shall be conducted in plenary and committee sessions.

#### Rule 8

The President shall declare the opening and closing of each plenary session of the Symposium, accord the right to speak and, subject to these rules of procedure, shall have complete control of the proceedings in the meeting and the maintenance of order therein. The President may call a speaker to order if his remarks are not relevant to the subject under discussion. He may limit the time on any question, close the list of speakers or close the discussion. He may suspend or adjourn the discussion on the item under consideration.

#### Rule 9

Representatives may address sessions of the Symposium only through recognition by the presiding officer. The presiding officer shall call upon speakers in the order in which they express their desire to speak.

#### Rule 10

The report of the Symposium or any part thereof, including recommendations and resolutions, may be adopted by a majority of the representatives present and voting. Representatives who abstain from voting shall be considered as not voting.

In regard to questions of procedure, decision shall be made by a majority of the representatives present and voting. Representatives who abstain from voting shall be considered as not voting. If the vote is equally divided, the proposal shall be considered as rejected.

#### Rule 11

At the request of the President, one of the Vice-Presidents, designated by him, may preside over any plenary session of the Symposium. A Vice-President acting as President shall have the same powers and duties as the President.

#### Rule 12

Each committee of the Symposium shall be presided over by the chairman of the committee, whose powers and functions shall be similar to those of the President of the Symposium at plenary sessions as provided in rules 8, 9, 10 and 11.

Rule 13

The documents submitted to the Symposium shall consist of two categories: (1) documents for general distribution, which shall be made available in English, French, Russian and Spanish; (2) background documents which shall be made available in their original language and as far as needed in working languages of the Symposium.

IV. Languages

Rule 14

Chinese, English, French, Russian and Spanish shall be the official languages of the Symposium.

Rule 15

Speeches made in one of the official languages of the Symposium shall be interpreted into its other official languages.

V. Records

Rule 16

Summary records of plenary sessions shall be provided.

VI. Publicity of Proceedings

Rule 17

All sessions of the Symposium shall be held in public, unless otherwise decided by the Symposium.

VII. Publication of Proceedings

Rule 18

The report of the Symposium together with a selection of documents submitted to the Symposium or summaries thereof shall be prepared and published by the Secretary-General of the United Nations.

VIII. Observers

Rule 19

International non-governmental organizations in categories A and B or on the register, concerned with the promotion of industrial development, may be invited to the Symposium.

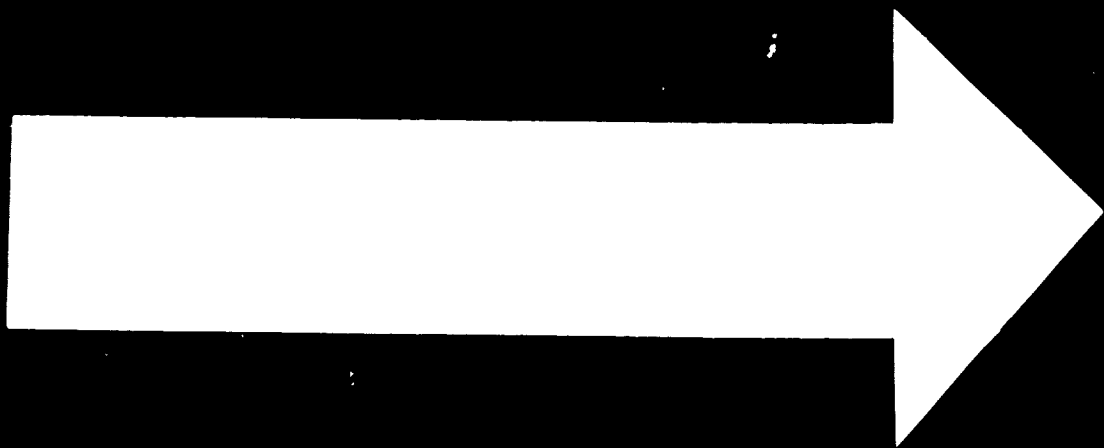
Non-governmental organizations in category A invited to the Symposium may designate authorized representatives as observers who, upon the invitation of the Symposium, may participate without the right of vote in the deliberations of the Symposium and its committees and may submit written statements.

Non-governmental organizations in category B or on the register who may be invited may designate authorized representatives to sit as observers at the sessions of the Symposium and its Committees.

IX. General provision

Rule 20

In respect of matters which are not covered by these rules, the relevant provisions of the rules of procedure of the General Assembly shall apply.



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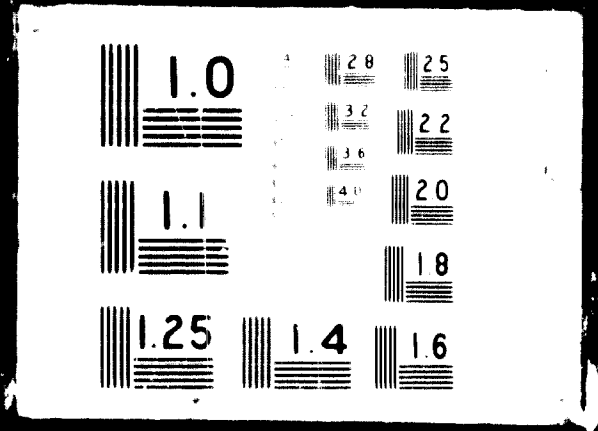
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(d) LIST OF REGISTERED PARTICIPANTS AND  
SECRETARIAT OF THE SYMPOSIUM

The participants registered at the Symposium are listed in the following pages. A total of 589 persons registered in the symposium, representing 78 Governments, 15 inter-governmental organizations, 9 offices and commissions of the United Nations Secretariat (other than UNIDO), 7 specialized and affiliated United Nations agencies and 6 non-governmental organizations.

The list of participants shown in the following pages are grouped as shown in the table below:

Summary of participants in the Symposium

	<u>Number of participants</u>
Representatives of Governments (representing 78 Governments)	495
Representatives of Inter-Governmental Organi- zations (representing 15 organizations)	28
Representatives of the United Nations Secretariat (from 9 UN offices and commissions)	18
Representatives of United Nations specialized and affiliated agencies (from 7 agencies)	26
Observers from Non-Governmental Organizations (representing 6 organizations)	22
	<hr/>
	589

Representatives of Governments

ALGERIA

H.E. Mr. Abdelkader CHANDERLI	Ambassador, Technical Adviser, Ministry of Industry and Energy	Representative
Mr. Mohamed ABERKANE	Adviser, Department of Economic, Cultural and Social Affairs, Ministry of Foreign Affairs	Alternative Representative
Mr. Mohamed AGAG	Assistant Director, Ministry of Industry and Energy	Adviser
Mr. Abdallah HACINI	Technical Adviser, Ministry of Industry and Energy	Adviser
Mr. Abdul-Latif KHELIL	Petroleum Engineer, SONATRACH	Adviser
Mr. Mohamed LARBI	Technical Adviser Ministry of Industry and Energy	Adviser

ARGENTINA

H.E. Mr. Jorge LAVALLE COBO	Ambassador, Embassy of the Argentine Republic in Athens	Representative
Mr. Jorge GAIBISSO	Deputy Director of Industrial Development, Ministry of Industry	Alternative Representative
Mr. José Lorenzo VIETTI	Adviser, National Council of Development	Alternative Representative

ARGENTINA (continued)

Mr. Francisco Alejandro MINIERI	Counsellor of the Embassy, Athens	Adviser
Mr. Hector TEJERINA	Secretary to the Embassy, Athens	Adviser

AUSTRALIA

Mr. William Allan MCKINNON	First Assistant Secretary, Office of Secondary Industry, Department of Trade and Industry, Canberra	Representative
H.E. Mr. Ralph Lindsay HARRY	Australian Ambassador to Belgium and the European Communities, Brussels	Alternative Representative
Mr. Alan John WOODS	Director, Services and Information, Department of Trade and Industry, Canberra	Alternative Representative
Mr. Roy Laidman CLARINGBOULD	Chief of Division, Department of Trade and Industry, Papua and New Guinea, Port Moresby	Alternative Representative
Miss Maris Estelle KING	Principal Research Officer, Department of External Affairs, Canberra	Alternative Representative
Mr. Frank CRAWFORD	International Trade Organizations Division, Department of Trade and Industry, Canberra	Alternative Representative
Mr. Keith J. HORTON-STEPHENS	Senior Research Officer, International Relations Section, Department of the Treasury, Canberra	Alternative Representative

AUSTRALIA (continued)

Mr. William K. Allen	Regional Director, Department of Labour and National Service, Melbourne	Alternative Representative
Mr. Stanley Barry MURPHY	Third Secretary, Australian Embassy, Vienna	Secretary

AUSTRIA

Mrs. Erna SAILER	Director, Federal Ministry for Foreign Affairs	Representative
Mr. Albert ROHAN	Austrian Embassy, Belgrade	Alternative Representative
Mr. George ZUK	Director, Federal Chancellery	Alternative Representative
Mr. Heins H. CZERCIK	Director, Anger Plastic Machines OHG	Adviser
Mr. Hans HOHN	Deputy Director General, Austrian Nitrogen Works	Adviser
Mr. Hermann HOLFELD	Federal Chamber of Commerce	Adviser
Mr. Peter KUPAS	Assistant Manager, Wagner-Biro AG	Adviser
Mr. Rudolf J. RESCHREITER	Director of Engineering, AUSTROPLAN, Austrian Consulting Engineering Co. Ltd.	Adviser
Mr. Peter ROSENDOGER	Austrian Trade Delegation, Athens	Adviser
Mr. Richard SCHNABL	Austrian Trade Delegation, Athens	Adviser

AUSTRIA continued

Mr. Philipp SCHMIDLER	Vice-President of the Federal Chamber of Commerce and Association of Austrian Industrialists	Adviser
Mr. Peter SCHWANKE	Director, Austrian Kommunal-Kredit-AG	Adviser

BELGIUM

M. F. Comte de SELVA DE WICHANS	Belgian Ambassador in Athens	Representative
Mr. Roger DELVAUX	Counsellor of the Embassy, Counsellor, Permanent Mission to International Economic Conferences	Alternative Representative
Mr. Jean DARON	Acting Director, Division of multilateral Organisations, Ministry of Foreign Affairs and of External Trade	Alternative Representative
Mr. Victor de MEYER	Chief, Division of International Organisations, Belgian Office of Foreign Trade, Brussels	Adviser
Mr. Paul JANSSENS	Commercial Attaché, Belgian Embassy, Athens	Adviser
Baron Xavier de CROMBRUGGHE de PICQUENDAELE	Adviser, Federation of Belgian Industries	Adviser
Mr. Robert DEOM	Administrator, Managing Director of the Palmafina Company	Adviser

BRAZIL

H.E. Mr. Alfredo FEIXEIRA VALLADAO	Ambassador	Representative
Mr. Romulo BARRETO DE ALMEIDA	Economist	Alternative Representative
Mr. Helio Dias de MOURA	Secretary of State of the State of Sao Paulo	Alternative Representative
Mr. Samuel PINHEIRO-QUIMARAES-NETO	Embassy Secretary	Alternative Representative
Mr. Paulo Ernesto TOLLE	President of the Board of Education of the State of Sao Paulo	Adviser
Mr. Sergio Roberto UGOINI	National Confederation of Industry	Adviser

BURUNDI

Mr. Alois NTAMAGARA	Director, Ministry of Commerce and Industry	Representative
Mr. Raphael NEMEZO	Director, Department of Agriculture	Alternative Representative
Mr. Francois MUTEBEREZI	Adviser to the National Bank	Adviser

CAMEROON

Mr. Albert Christian NDOUNG	Assistant Director of Planning for Investments, Studies and Programmes	Representative
Mr. Jacques ALIBERT	Manager, Société Camerounaise d'Etudes et Promotion	Adviser
Mr. Joseph-Sévère NINKA	Chief, Industry Division, Ministry of Commerce and Industry	Adviser

CANADA

H.E. Mr. H. F. FEAVER	Ambassador, Athens	Representative
Mr. Morley B. BURSEY	Counsellor (Commercial)	Alternative Representative
Mr. Stuart W. CLARKSON	Deputy Minister, Department of Economics and Development, Province of Ontario, Toronto	Adviser
Mr. Harold Dunoan DAGG	MacMillan, Bloedel and Powell River Ltd., Vancouver, B.C.	Adviser
Mr. Lorne DYKE	Deputy Minister, Department of Industry and Commerce, Province of Manitoba, Winnipeg	Adviser
Mr. Jack HAHN	Surveyor, Nenninger and Chenevert Inc., Montreal	Adviser
Mr. Webster T. THOMPSON	Senior Trade and Industrial Counsellor, Province of Ontario, Ontario House, London, England	Adviser
Mr. Thomas Edward BOCKING	Department of Industry, Ottawa	Secretary

CENTRAL AFRICAN REPUBLIC

Mr. Robert BRUN	Chief of the Division of Industrial Promotion	Representative
Mr. David MOMBE	Chief of Division, Board of Planning and Technical Assistance	Alternative Representative



CEYLON

Mr. Shelton JAYESINGHE	Parliamentary Secretary to the Ministry of Industries and Fisheries	Representative
Mr. Cadiravail MYLVAGANAI	Director, Industrial Development, Ministry of Industries and Fisheries; Chairman, Industrial Development Board	Adviser

CHILE

Mr. Franco Valle ROSSI	Deputy Director of Studies, National Association for the Development of Production (CORFO)	Representative
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CHINA

Mr. Kwob-ting LI	Minister of Economic Affairs	Representative
Mr. Pao-nan CHENG	Ambassador, Permanent Mission of the Republic of China to the UN Office and other International Organizations at Geneva	Representative
Mr. Yun-Suan SUN	Adviser to the Ministry of Economic Affairs	Representative
Mr. Kwang-Shih CHANG	Co-ordinator of State Corporations of Ministry of Economic Affairs; Vice-President of Chinese Petroleum Corporation	Alternative Representative
Mr. Wen-Kuei CHEN	Director, Technical Division, Council for International Economic Cooperation and Development	Alternative Representative
Mr. Tse-chia PAN	Deputy General Manager, CDC	Alternative Representative

CHINA (continued)

Mr. Robert C. CHIEN	Director, Economic Research Department, Bank of China	Adviser
Mr. Yan LEE	Third Secretary, Chinese Mission to the UN, Geneva	Adviser
Mr. Chao-Yuan WANG	Second Secretary, Embassy of the Republic of China, Athens	Adviser
Mr. H.C. YANG	Senior Specialist, Council for International Cooperation and Development	Adviser and Secretary

CONGO (BRAZZAVILLE)

Mr. Placide N'ZALA-BACKA	Deputy Director of Industrial Production, Ministry of Industry	Representative
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CONGO, DEMOCRATIC REPUBLIC OF

Mr. Gustave MALUMBA	Economic Adviser, Office of the Minister of Economy and Industry	Representative
Mr. Alphonse LONDA-SASA	First Secretary to the Embassy of the Democratic Republic of Congo in Athens	Representative
Mr. Pierre-Richard TCHIBAMBE	Senior Officer, Central Administration of the Ministry of Economy and Industry	Alternative Representative

COSTA RICA

H.E. Mr. Erich ZEILINGER	Ambassador-UNIDO; Minister Plenipotentiary to the IAEA	Representative
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CYPRUS

Mr. Nicos DIMITRIOU	Chairman, Cyprus Development Corporation Ltd., and LARNACA Chamber of Commerce and Industry	Representative
Mr. Anastasios Michael PAPAKYRIAKOU	Industrial Officer, Ministry of Commerce and Industry	Alternative Representative
Mr. Angelos Michael PIKIS	General Manager, Cyprus Development Corporation Ltd.	Adviser
Mr. Nicos N. ROSSOS	Cyprus Employers' Consultative Association (Proprietor)	Adviser
Mr. C. SEVERIS	Cyprus Chamber of Commerce and Industry	Adviser

DAHOMY

Mr. A. Noël NIADENOU	Secretary-General of the Chamber of Commerce and Industry	Representative
Mr. Julien Vincent de SOUZA	Director of Studies and Economic Documentation, Ministry of Finance, Economic Affairs and Planning	Alternative Representative
Mr. Jacques DENEUFBOURG	Director-General of Planning	Adviser

DENMARK

Mr. Nogens SUNCK	Assistant Head of Department, Ministry of Foreign Affairs	Representative
Mr. Niels E. BECH	Head of Section, Federation of Danish Industries	Adviser
Mr. Nogens Knud ISAKSEN	Head of Section, Ministry of Foreign Affairs	Adviser
Mr. Jørgen NORGAARD	Assistant Head of Section, Ministry of Commerce	Adviser

ETHIOPIA

Mr. Gabre Michael PATLOS	Director of Industrial Department, Ministry of Commerce and Industry	Representative
Mr. Abraham VORKINEN	Deputy General Manager, Ethiopian Investment Corporation	Alternative Representative
Mr. Paulos ABRAHAM	Expert in the Imperial Ethiopian Government Technical Agency, Ministry of Planning and Development	Adviser

FEDERAL REPUBLIC OF GERMANY

Mr. Fritz C. STEINHAUS	Deputy Director, Ministry of Economics	Representative
Mr. Horst BOLTZ	Ministerialrat, Ministry of Economic Cooperation	Alternative Representative
Mr. Wilhelm G. von HEYDEN	Ministry of Foreign Affairs	Alternative Representative
Mr. Josef HOPPING	Ministerialrat, Ministry of Economics	Alternative Representative
Mr. Heinz Friedrich SCHULZ	Ministerialrat, Ministry of Economics	Alternative Representative
Mrs. Helga STEFF	Ministry of Economics	Alternative Representative
Mr. Rainer BARTHHELT	Regierungsrat, Ministry of Economic Co-operation	Adviser
Mr. Gerhard W. BAUER	Oberregierungsrat, Ministry of Economics	Adviser
Mr. Hans A. HAYEMANN	Professor, Technical University Aachen	Adviser
Mr. Rudolf HEISS	Professor, Institute of Food Technology and Packing, Munich	Adviser

FEDERAL REPUBLIC OF GERMANY (continued)

Mr. Kurt H. HENDRIKSON	Economist, Business Consultant	Adviser
Mr. Guido HEYMER	Attaché, German Embassy, Athens	Adviser
Mr. Karl Herbert KAMPTNER	Director, Farbwerke Hoechst A.G.	Adviser
Mr. Hans-Eberhard KÖPP	Regierungsrat, Ministry of Economic Affairs	Adviser
Mr. Eberhard KURTH	Ministry of Economics	Adviser
Mr. Herbert MITTENDORF	Managing Director, German Development Company	Adviser
Mr. Rudolf SCHMIDT	Regierungsrat, Ministry of Finance	Adviser
Mr. H. H. KRUSE	Counsellor to the Embassy	Alternative Representative

FRANCE

Mr. Georges VILLIERS	Honorary President of the National Council of French Business Executives	Representative
Mr. Jean VAVASSEUR	General Engineer of Maritime Engineering, National Council of French Business Executives	Alternative Representative
Mr. F. BOULNOIS	Federation of Mechanical Industries, Secretary-General of Professional Organizations	Adviser
Mr. Jean FAVRE	Chief of the Division of External Relations, French Petroleum Institute	Adviser
Mr. Raymond FRONTARL	Deputy Director-General of the French Association for Standardization	Adviser
Mr. DURAND-REVILLE	President of the Committee for Investments in Foreign Countries, National Council of French Business Executives	Adviser

FRANCE (continued)

Mr. Albert Jean Louis GARAND	General Rapporteur for Overseas Questions, National Council of French Business Executives	Adviser
Mr. Pierre GAUTHERON	Assistant Director, Compagnie Générale d'Electricité, Paris	Adviser
Mr. Maurice GUENANFF	Civil Administrator, Ministry of Finance, Treasury Department	Adviser
Mlle. Michelle GUYOT	Civil Administrator, Ministry of Economy and Finance	Adviser
Mr. Henri JOURNU	Director-General, Committee of French Chemical Engineering	Adviser
Mr. Roland JULIENNE	Civil Administrator, State Secretariat for Co-operation	Adviser
Mr. René JUPILLAT	Chief Engineer, Electricité de France	Adviser
Mr. Guy LGRAS	Embassy Secretary, Ministry of Foreign Affairs, Paris	Adviser
Mr. Maurice de LONGEVIALLE	President, Association of the Bureaux of Technical Studies	Adviser
Mr. Claude L. MERCIER	Director, Division of Industrial Applications	Adviser
Mr. Roger Louis NANCY	General Engineer, Ministry of Industry	Adviser
Mr. Roland PRE	President of European Centre for Industrial Development and the Development of Overseas Territories (Cedimom)	Adviser
Mr. Henri RIEUF	Vice President, Confederation of the Wood Industries	Adviser

FRANCE (continued)

Mr. Bernard THIERRY MIEG	President of the Schaeffer Company, Mulhouse	Adviser
Mlle. Madeleine CORBY	Secretary of the Delegation, Ministry of Foreign Affairs, Paris	Secretary
Mlle. Françoise GUILLAUME	Secretary, Ministry of Foreign Affairs, (Division of Eastern Affairs), Second Secretary to the French Embassy in Vienna	Secretary

GHANA

Mr. J. THERSON-COFIE	Chief Industrial Promotion Officer, Ministry of Industries	Representative
Mr. E.M.K. AIDAM	Director for Industry Development Service Institute, National Investment Bank	Alternative Representative
Mr. Maxwell Elliott BADU	Secretary, Capital Investments Board	Alternative Representative
Mr. J.A. BROBBEY	Economic Division, Ministry of Economic Affairs	Alternative Representative

GREECE

Mr. George PARASKEVOPOULOS	Governor, National Bank of Greece; President, National Committee for Industrial Development	Representative
Mr. Achilles COMINOS	Economist, Ministry of Co-ordination	Alternative Representative
Mr. Dimitrios A. KARAIKAKIS	General Director, Ministry of Industry	Alternative Representative

GREECE (continued)

Mr. John N. LAMBROUKOS	General Director, Ministry of Co-ordination	Alternative Representative
Mr. Andreas MICHALAKIS	General Secretary, National Committee for Industrial Development	Alternative Representative
Mr. Eustace PANAS	Director, Ministry of Co-ordination	Alternative Representative
Mr. Gregory PANAS	Deputy Governor, Hellenic Industrial Development Bank	Alternative Representative
Mr. Denis PATRIKIOS	Inspector of Public Works	Alternative Representative
Mr. Jeronymos PINTOS	Professor, Panteios School of Political Sciences	Alternative Representative
Mr. Theodore PYRLAS	Director, Ministry of Commerce	Alternative Representative
Mr. Nicolas TAVOULARIS	National Committee for Industrial Development	Alternative Representative
Mr. Constantine A. THANOS	Secretary-General, Ministry of Co-ordination; President of the Committee for European Co-operation	Alternative Representative
Mr. Constantine TRANOS	Ambassador, Director of Economic Affairs, Ministry of Foreign Affairs	Alternative Representative
Mr. Constantine ZEPOS	First Secretary, Ministry of Foreign Affairs	Alternative Representative
Mr. Orestis ANGELIDIS	Institute of Industrial Research	Adviser
Mr. Elias BALOPOULOS	Acting Director, Centre of Planning and Economic Research	Adviser
Mr. Evangelon-Frixos DIMOU	Counsellor to the Ministry of Industry	Adviser



GREECE (continued)

Mr. Rossetos FAKIOLAS	Economist, Centre of Planning and Economic Research	Adviser
Mr. Christos FRANGOUDIS	Centre of Planning and Economic Research	Adviser
Mr. John Paul GERAKIS	Director, Technical and Economic Studies Division, Hellenic Industrial Development Bank	Adviser
Mr. Stylianos GERONIMAKIS	Director, Ministry of Co-ordination	Adviser
Mr. Demetrius KALODOUKAS	Bank of Greece	Adviser
Mr. Dimitrios KARELIS	Head of Food Industry Department, Hellenic Industrial Development Bank	Adviser
Mr. Hermes LEMONIAS	Head of Industrial Section, Centre of Planning and Economic Research	Adviser
Mr. Panos MARGAROPOULOS	Director of Forestry Development Planning and Research, Ministry of Agriculture	Adviser
Mr. Phaidon MIHOS	Chief of Development Division, Hellenic Industrial Development Bank	Adviser
Mr. John MITSOS	Vice-President of the Association of Greek Industrialists	Adviser
Mr. Vassilis C.P.MORFOPOULOS	Consultant, Industrial Development Metal and Materials Industries	Adviser
Mr. Spyridon NONICAS	Director, Ministry of Co-ordination	Adviser

GREECE (continued)

Mr. Demetrius OIKONOMOU	Civil Service Board	Adviser
Mr. John PIPEROGLOU	Planning Manager, Esso-Pappas	Adviser
Mr. John SAKELLARIDIS	Agency for the Standardization of Greek Products	Adviser
Mr. Theodore STRATOS	Industrialist	Adviser
Mr. George TRIANTAFYLLOPOULOS	Director, Ministry of Co-ordination	Adviser
Mr. Alexander George TSATSOS	Chairman of the Board, Managing Director, General Cement Co. S.A.	Adviser
Mr. George D. KOUMOULOS	Deputy Manager, Hellenic Industrial Development Bank	Adviser

GUINEA

Mr. Abdoulaye BARRY	Chief of Division, Ministry of Foreign Affairs	Representative
Mr. Boubacar BAH	Director of the Office of Central and Industrial Co-ordination, Ministry of Economic Development	Representative

HOLY SEE

Mr. Gerolamu Luigi BASSANI	President and Director, Institute for Studies of International Politics (ISPI), c/o Pontifical Commission on Justice and Peace, Vatican City	Representative
Mr. Leon de ROSEN	President, International Union of Catholic Managers (UNIAPAC), c/o Pontifical Commission on Justice and Peace, Vatican City	Representative

INDIA

H.E. Mr. K.V. RAGHUNATAA REDDY	Minister of Industries	Representative
Mr. P.C. ALEXANDER	Joint Secretary, Ministry of Commerce	Alternative Representative
Mr. K.J. GEORGE	Director, Ministry of Industrial Development and Company Affairs	Alternative Representative
Mr. Bal KALELKAR	Director General, Technical Development, Ministry of Industrial Development and Company Affairs	Alternative Representative
Mr. C.V.S. MANI	Deputy Secretary, Ministry of Steel, Mines and Metals	Alternative Representative
Mr. S.S. MARATHE	Economic Adviser, Government of India	Alternative Representative
Mr. Niranjan Nath WANCHOO	Secretary, Ministry of Industrial Development and Company Affairs	Alternative Representative
Mr. P.N. NEVILLE	First Secretary, Embassy of India, Belgrade	Adviser
Mr. C.D. THAKKAR		Adviser

INDONESIA

Mr. Sediono SURJO	Senior Official, Department of Basic and Light Industries and Power	Representative
Mr. Irawan DARSA	Second Secretary, Permanent Mission of Indonesia, Geneva	Adviser
Mr. Benito KODIJAT	Senior Official, Department of Basic and Light Industries and Power	Adviser

INDONESIA (continued)

Mr. Muljo HARSONO	Deputy Director, Institute for Industrial Research and Planning	Adviser
Mr. ROOSMAN	Industrial Attaché, Embassy of Indonesia, The Hague	Alternative Representative
Mr. E.H. THOMAS	Industrial Attaché, Embassy of Indonesia, Rome	Adviser

IRAN

Mr. Mohammed Ali AGHASSI	Senior Ministerial Adviser on International Operations, Ministry of Economy	Representative
Mr. Amanollah BARDAI	Chief of Chemical Industries Section, Ministry of Economy	Alternative Representative
Mr. Khanhaha IRAVANI	Head of Formulation and Evaluation of Industrial Projects Bureau, Ministry of Economy	Alternative Representative
Mr. Hossein MAADI	Head of Investment Promotion Department, Ministry of Economy	Alternative Representative
Mr. Mohamed MAHDAVI	Senior Adviser, National Iranian Oil Co.,	Alternative Representative
Mr. Mansour VAFAI	Ministry of Foreign Affairs, Department of International Organizations	Alternative Representative
Mr. Mohammed Ali SEYRAFI	Chief of Industrial Planning Section, Ministry of Economy	Adviser

IRAQ

Mr. Abdul Karim HILMI	Director General of Industrial Planning, Ministry of Industry	Representative
Mr. Ibrahim AL-CHORBACHI	First Secretary, Embassy of the Republic of Iraq in Athens	Alternative Representative
Mr. Hickmet Ali SHABAN	Member of the Board of Directors, Iraqi Federation of Industries	Alternative Representative

ISRAEL

Mr. Aharon GILAT	Deputy Director General, Ministry of Commerce and Industry	Representative
Mr. Yaaqov BEN-SAR	Commercial Attaché, Diplomatic Representation, Athens	Alternative Representative
Mr. Peres F. HARBURGER	Head of Department for Youth and Vocational Education, Ministry of Labour	Alternative Representative
Mr. Barouch SHALEV	Senior Economist, Planning Division, Ministry of Commerce and Industry	Alternative Representative
Mr. Uriel BARATZ	Engineer, Engineering and Erection of Industries Overseas Ltd.	Adviser
Mr. Yigal COHEN	Director, Industrial Advisers and Planning Co.	Adviser
Mr. Zalman LEIBOVITZ	Technical Director, "Ets-Hasaith" Industries	Adviser
Mr. Michael ROSNER	Director, Israeli Development Corporation	Adviser

ITALY

H.E. Mr. Clemente BONIVER	Minister Plenipotentiary for Economic Affairs, Italian Embassy, Athens	Representative
Baron Alberto VERTUNI di ALBANELLA	First Commercial Secretary, Italian Embassy, Athens	Alternative Representative
Mr. Arturo BALBONI	Economist, "Società ITALIANA IMPIANTI di Genova" Mechanical Industries	Adviser
Mr. Sergio BARBESCHI	Chemical and Petrochemical Industrial Engineer	Adviser
Mr. Giannino BERTUZZI	Head of INO Office, Technical Petrochemical Department of ANIC, Inc.	Adviser
Mr. Antonio BOTTEMI	Head of the Operative Analysis Department of LANEROSSEI, Inc.	Adviser
Mr. Brunello CARTASEGNA	Delegate for "MONTECATINI EDISON Sp.A."	Adviser
Mr. Attilio CONSONNI	Consulting Engineer, Project management and planning	Adviser
Mr. Francesco LAURITA-LONGO	Agriculture Industry ("Studio Tecnico Laurita Longo", Reggio Calabria)	Adviser
Mr. Luciano MERANI	Doctor, Chemical industries ("MONTECATINI EDISON")	Adviser
Mr. Michele SCARFIDI	Commercial and Technical Manager ("ETERNIT")	Adviser
Mr. Carlo TEVINI	Architect, representing in Athens Italian Industrial and Financing Groups	Adviser
Mr. Antonio PERRONE	Sales Manager, Food Processing Industry	Adviser
Mr. Giuseppe STELLA	General Secretary of the Italian Chamber of Commerce in Athens	Adviser

IVORY COAST

Mr. Antoine SIBI GBEMO	Technical Adviser, Ministry of Planning, Director of Private Investment	Representative
Mr. Yao DELON	Ministry of Planning, Agricultural Engineer	Adviser

JAPAN

H.E. Mr. Shinsaku HOGEN	Ambassador to Austria	Representative
Mr. Yoshio FUJIMOTO	First Secretary, Embassy of Japan, Austria	Alternative Representative
Mr. Saburo KAKO	Chief, Statistics Section, Resources Bureau, Science and Technology Agency, Prime Minister's Office	Alternative Representative
Mr. Tadashi ASANO	President, Nagai Consultant Co.Ltd.	Adviser
Mr. Minosuke EMORI	Chief, Foreign Trade Division, Federation of Economic Organisations	Adviser
Mr. Fusanosuke KAIOR	Assistant Manager, Planning Department, Japan Gasoline Co.Ltd.	Adviser
Mr. Shonosuke KIMURA	Assistant Director, Toyo-Koatsu Industries Inc,	Adviser
Mr. Akira MISHINA	Assistant General Manager, Toyo Engineering Corporation	Adviser
Mr. Kunio MURAOKA	First Secretary, Permanent Mission of Japan to the United Nations, N.Y.	Adviser
Mr. Goro NAKASONE	Secretary, International Corporation Section, Ministry Foreign Affairs	Adviser

JAPAN (continued)

Mr. Kenjiro OGATA	Secretary, Economic Cooperation Division, Ministry of International Trade and Industry	Adviser
Mr. Yoshihiko SEKIYAMA	Chief, Japan Consulting Institute in Cairo	Adviser
Mr. Sunabori AKIRA	Deputy General Manager, Fuji Iron and Steel Co.Ltd., Düsseldorf Office	Adviser
Mr. Hitoaki YAMAZUCHI	Managing Director, Engineering Consulting Firms Association	Adviser
Mr. Kohji TSUJITA	Secretary, Economic Affairs Section, United Nations Bureau, Ministry of Foreign Affairs	Adviser

JORDAN

Mr. Abdulla Farid KHALIFEH	Engineer, Chairman of Industrial Co., Amman	Representative
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KENYA

Mr. James Karani GITAO	Planning Officer, Ministry of Economic Planning and Development	Representative
Mr. George Musau MATHEKA	Assistant Director of Industries, Ministry of Commerce and Industry	Alternative Representative
Mr. Kenneth Njindo MATIBA	Permanent Secretary, Ministry of Commerce and Industry	Alternative Representative
Mr. Peter Joseph NDUNGU	Assistant Secretary, Ministry of Foreign Affairs	Alternative Representative
Mr. Joseph Barrage WANJAU	Executive Director, Industrial and Commercial Development Corporation	Alternative Representative



KUWAIT

H.E. Mr. Abdullah AL-JABBER	Minister of Commerce and Industry	Representative
Mr. Mohamed Darwish ALARADI	Member of the Board, National Industries Company	Alternative Representative
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Mr. Essmat AL-KHATIB	Economic Researcher, Ministry of Commerce and Industry	Alternative Representative
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TRINIDAD AND TOBAGO

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UNITED NATIONS ECONOMIC AID  
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Mr. Jean-Pierre MARTIN	Director *	Representative
Mr. Basim HANNUSH	Chief, Economic Section	Representative

UNITED NATIONS CONFERENCE ON  
TRADE AND DEVELOPMENT (UNCTAD)

Mr. Rangaswami KRISHNAMURTI	Acting Director, Division of Manufactures	Alternative Representative
Mr. Colin Roger GREENHILL	Special Assistant to Director, Division of Manufactures	Representative
Mr. Chikao TSUKUDA	Economic Affairs Officer, Research Division	Alternative Representative

UNITED NATIONS DEVELOPMENT  
PROGRAMME (UNDP)

Mr. David OWEN	Co-administrator, UNDP	Representative
Mr. Anthony Bruce HARLAND	Chief, Engineering and Technology Section, Research Division, Bureau of Operation and Programming	Alternative Representative
Mr. Otakar CZIVIS	Consultant	Adviser

WORLD FOOD PROGRAMME (WFP)

Mr. Homi SETHNA	Project Officer	Representative
Mr. Otto MATZKE	Deputy Director, Programme Developing and Appraisal Division	Alternative Representative

\* Mr. Martin, in his capacity as Director of UNESOB also represented the United Nations Department of Economic and Social Affairs. (See above)

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UNITED NATIONS OFFICE OF  
PUBLIC INFORMATION

Mr. J. NEDELA

Office of the Under-  
Secretary for Public  
Information,  
United Nations Headquarters,  
New York

Representative

Mr. J. BACK

Director,  
UN Information Centre,  
Athens

Representatives of Specialized Agencies and  
other agencies affiliated with the United Nations

INTERNATIONAL LABOUR  
ORGANISATION (ILO)

Mr. Abbas AMMAR	Deputy Director-General	Representative
Mr. Antoine ZELEENKA	Chief, Research and Planning Department	Alternative Representative
Mr. Alfonso CRESPO	Representative	Adviser
Mr. Bernard FORTIN	Chief, Programme and Research Section, Human Resources Department	Adviser
Mr. Xavier Stanislas GIR	Chief, Management Development Projects in Greece	Adviser
Mr. Frank Linley JONES	Chief, Technical Cooperation Branch	Adviser
Mr. Jacobus LA BREE	Senior project Officer, Management Development Branch	Adviser
Mr. Hubert ZOEFWEIJ	Research and Planning Department	Adviser
Mrs. Yvette ADAM	Secretary to Delegation	Secretary
Mrs. Audrey AYUSAWA	Secretary to Delegation	Secretary
Mrs. Raymonde Violette DUTOIT	Secretary to Head of Delegation	Secretary

FOOD AND AGRICULTURE  
ORGANIZATION (FAO)

Mr. Albert ATEN	Technical Officer, Technical Department Office of the ADG	Representative
Mr. Alexander Gunther FRIEDRICH	Assistant Director, FAO/Industry Cooperative Programme	Alternative
Mr. Edward ASSELBERGS	Nutrition Division	Adviser
Mr. Egan GLESINGER	Assistant Director-General, Department of Public Relations and Legal Affairs	Adviser
Mr. Louis SANQUINETTI	Agricultural Engineering Officer	Adviser
Mr. Josef SWIDERSKI	Chief, Forest Industries and Utilization Branch, Forestry and Forest Products Division, Technical Department	Adviser
Mr. Gerald S. WELSH	Chief, Mechanical Wood Products Section, Technical Department	Adviser

UNITED NATIONS EDUCATIONAL,  
SCIENTIFIC AND CULTURAL  
ORGANIZATION (UNESCO)

Mr. Christian ROOSENS	Acting Chief of Project, Technical Teacher Training	Representative
Mr. Desire J. B. PETRY	Chief Technical Adviser to Technical Teacher Training Institute, Athens	Alternative Representative

WORLD HEALTH ORGANIZATION (WHO)

Mr. Alan BELL	Chief, Social and Occupational Health	Representative
---------------	------------------------------------------	----------------

INTERNATIONAL BANK FOR  
RECONSTRUCTION AND  
DEVELOPMENT (IBRD)

Mr. J. Duncan MILLER

Special Representative  
of the Bank in Europe

Representative

Mr. Einar SEKSE

International Finance  
Corporation

Alternative  
Representative

Mr. Juan PRADO

International Finance  
Corporation

Adviser

INTERNATIONAL ATOMIC  
ENERGY AGENCY (IAEA)

Mr. D. S. BRIGGS

Division of Nuclear  
Power and Reactors

Representative

GENERAL AGREEMENT ON  
TARIFF AND TRADE (GATT)

Mr. Charles d'ASSIER de  
BOISREDON

Economic Affairs Officer,  
International Trade Center

Representative

Representatives of Non-governmental Organizations  
attending the Symposium as Observers

AFRO-ASIAN ORGANIZATION FOR  
ECONOMIC CO-OPERATION (AFRASEC)

Mr. Mohamed LAGHZAWY	President	Representative
Mr. Mohamed Ali RIFAAT	Secretary General	Alternative Representative
Mr. Aly Mohed CHEHATA	Secretary General, Arab Management Organization	Alternative Representative
Mr. El Sayed El Badawi AL MENCHAWI	Secretariat Member	Alternative Representative
Mr. Mohamed Fouad Amin RATEB	Manager of Public Relations	Alternative Representative
Mrs. Khadiga RIFAAT	Member	Alternative Representative
Mr. Osman RIFAAT	Assistant Secretary General	Alternative Representative

INTERNATIONAL ORGANIZATION  
FOR EMPLOYERS (IOE)

Mr. Jean Jacques OECHSLIN	Executive Secretary	Representative
Mr. Raphaël LACASSE	General Secretary	Alternative Representative
Mr. Alexandre BARDAS	Legal Adviser	Adviser

CARNEGIE ENDOWMENT

Mr. Emmanuel LIBBRECHT	Consultant	Representative
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INTERNATIONAL ASSOCIATION FOR THE  
PROMOTION AND PROTECTION OF  
PRIVATE FOREIGN INVESTMENTS (APPI)

Mr. Michael BHANDON	Executive Secretary	Representative
Mr. C. NYMANS	Vice President, Stockholms Enskilda Bank, Stockholm	Alternative Representative
Mr. George CONTICAS	General Manager, National Investment Bank of Industrial Development S.A., Athens and APPI, Geneva	Alternative Representative

INTERNATIONAL CHAMBER OF  
COMMERCE (ICC)

Mr. Walter HILL	Secretary General	Representative
Mr. Stratis ANDREADES	Chairman, of Greek National Committee of ICC and of the Commercial Bank of Greece	Alternative Representative
Mr. Lucien R. DUCHESNE	Administrative Director and Assistant to the ICC Secretary General	Alternative Representative
Mr. Shyam Sunda KANORIA	Director and President, Indian Chamber of Commerce, KANORIA Company Ltd., 9, Brabourne Road, Calcutta 1	Alternative Representative
Mr. Nestor RIGA	Sub-Director, Société Générale de Banque, 61 Avenue Louise, Bruxelles	Alternative Representative
Mrs. Roberta M. LUSARDI	Secretary to ICC Delegation and Permanent ICC Representative at UN Headquarters in New York	Adviser

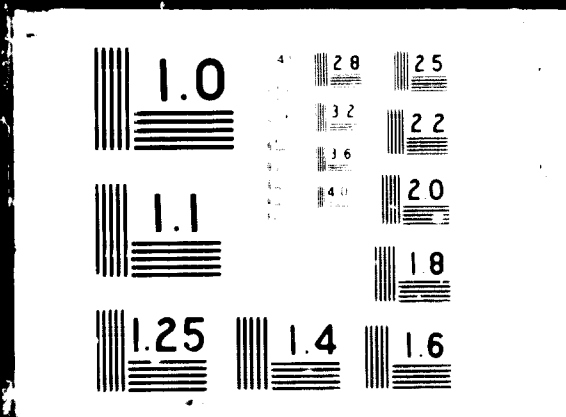
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WORLD YOUNG WOMEN'S  
CHRISTIAN ASSOCIATION (YWCA)

Mrs. Alice ARNOLD

Consultant for International  
and Social Questions

Representative

Mrs. Athens ATHANASSIOU

World YWCA President,  
Athens

Alternative  
Representative

SECRETARIAT OF THE SYMPOSIUM

Office of the Executive Secretary

Executive Secretary	Mr. I.H. Abdel-Rahman
Deputy Executive Secretary	Mr. S. Lurié
Assistants to the Deputy Executive Secretary:	
Symposium organization and documentation	Mrs. R. Pfanner
Reports Co-ordination	Mrs. C. Doblin
Public Information	Miss L. Doss
Administrative Liaison	Mr. B. Borsuk
Director of Administration	Mr. J.T. Birkhead
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Chief Conference Officer	Miss C. Rhodes (U.N. Geneva office)
Deputy Chief, Conference Officer	Mr. F. Herold

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Substantive Officer	Mr. D. Feldman

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Secretary

Mr. A.A. Afifi

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Mr. H. Einhaus

Mr. L. Katkhouda

Mr. H. Pahlström

Mr. I. Krestovsky

Mr. B. Fortin (ILO)<sup>8/</sup>

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Mr. J. Orloski

Mr. A. Wilmots-Van den Daele

<sup>8/</sup> The agency or regional commission is indicated for those members of the Secretariat who were seconded by their organizations to UNIDO for the Symposium.

(e) LIST OF DOCUMENTS PREPARED IN CONNEXION  
WITH THE SYMPOSIUM

<u>Symbol</u>	<u>Contents</u> <sup>9/</sup>	<u>Languages</u>	<u>Page</u>
ID/CONF.1/A	Agenda, Rules of Procedure and Issues for Discussion	E F S R	
ID/CONF.1/	General Papers	E F S R	
ID/CONF.1/B	Background Papers	Original only	
ID/CONF.1/G and	Government Papers	Original only	
ID/CONF.1/G SUMMARY	and Summaries	E F S R	
ID/CONF.1/R.R.	Report of the Regional Symposia	E F S R	
ID/CONF.1/R.B.P.	Papers and Proceedings of the Regional Symposia	Original only	
ID/CONF.1/SR	Summary Records of Plenary Meetings	E F S	
ID/CONF.1/INF.	General Information	E F S R	
Information Papers Issued During the Symposium Session			

<sup>9/</sup> In addition, certain documents were reproduced by governments and organizations and presented to the Symposium as unofficial documents. (See list (f) below).

AGENDA, RULES OF PROCEDURE AND ISSUES FOR DISCUSSION

ID/CONF.1/A.1/Rev.1 and Add. 1	Annotated Provisional Agenda and Timetable for the Symposium
ID/CONF.1/A.1/Rev.2	Provisional Agenda
ID/CONF.1/A.2/Rev.1	Draft Rules of Procedure
ID/CONF.1/A.3	Problems and Issues of Industrial Development
ID/CONF.1/A.4 Corr.1	Issues for Discussion: Iron and Steel Industry
ID/CONF.1/A.5	Issues for Discussion: Non-ferrous Metals Industry
ID/CONF.1/A.6	Issues for Discussion: Engineering Industry
ID/CONF.1/A.7	Issues for Discussion: Chemical Industry
ID/CONF.1/A.8	Issues for Discussion: Fertilizer, Pesticides and Insecticides Industries
ID/CONF.1/A.9	Issues for Discussion: Food Processing Industry
ID/CONF.1/A.10	Issues for Discussion: The Textile Industry
ID/CONF.1/A.11	Issues for Discussion: Building Materials and Components Industries
ID/CONF.1/A.12	Issues for Discussion: The Construction Industry
ID/CONF.1/A.13	Issues for Discussion: Standardization
ID/CONF.1/A.14	Issues for Discussion: General Policies - Economic and Social Aspects
ID/CONF.1/A.15	Issues for Discussion: Technical Co-operation
ID/CONF.1/A.16	Issues for Discussion: Formulation and Implementation of Industrial Programmes
ID/CONF.1/A.17	Issues for Discussion: Industrial Manpower
ID/CONF.1/A.18	Issues for Discussion: Domestic Financing
ID/CONF.1/A.19	Issues for Discussion: Administrative Machinery for Industrial Development

Agenda, rules of procedure and issues for discussion (continued)

ID/CONF.1/A.20	Issues for Discussion: Industrial Research
ID/CONF.1/A.21	Issues for Discussion: Industrial Information
ID/CONF.1/A.22	Issues for Discussion: Promotion of Exports
ID/CONF.1/A.23	Issues for Discussion: Small-scale Industry
ID/CONF.1/A.24	Issues for Discussion: Regional Co-operation
ID/CONF.1/A.25	Issues for Discussion: External Financing

GENERAL PAPERS

ID/CONF.1/1 Corrs.1 and 2	Official bilateral Financial Assistance for the Manufacturing Industry of the Developing Countries
ID/CONF.1/2	Sectoral Studies Prepared for the Symposium: Engineering Industries
ID/CONF.1/3	Implementation of Industrial Projects
ID/CONF.1/4	The Role of Policy-makers in Project Formulation and Evaluation
ID/CONF.1/5	The Use of Industrial Consultants in Developing Countries
ID/CONF.1/6 Corr.1	Policies and Programmes for the Development of Small-scale Industry
ID/CONF.1/7	Domestic Financing of Industrial Development
ID/CONF.1/8	Industrial Development and Standardisation
ID/CONF.1/9	A Summary of Activities of the World Bank Group in the Industrial Field
ID/CONF.1/10 Corr.1	Industrial Consultation Services in Europe (summary of ID/CONF.1/B.10)
ID/CONF.1/11	Regional Integration and the Industrialisation of Developing Countries
ID/CONF.1/12	Industrial Location Planning



General papers (continued)

- ID/CONF.1/13  
Corr.1                      Survey of Export Promotion Techniques
- ID/CONF.1/14                      Policies, Planning and the Economic, Social and Institutional Aspects of Industrial Development Based on Agricultural, Forestry and Fishery Resources
- ID/CONF.1/15                      Requisites of Production, Processing and Utilization to Develop Agriculture, Forestry and Fisheries
- ID/CONF.1/16                      Food and Food Products Industries
- ID/CONF.1/17                      Industries Processing Agricultural Commodities other than Food
- ID/CONF.1/18                      Forest and Forest Products Industries
- ID/CONF.1/19                      Fisheries Industries
- ID/CONF.1/20  
and Corr.1                      FAO Programme of Work and Industry Support under the Freedom from Hunger Campaign
- ID/CONF.1/21                      Sectoral Studies Prepared for the Symposium: Textile Industries
- ID/CONF.1/22                      Tax Incentives for Industrial Development (summary of ID/CONF.1/B.2)
- ID/CONF.1/23                      Sectoral Studies Prepared for the Symposium: Building Materials Industries Including Wood Products
- ID/CONF.1/24                      Sectoral Studies Prepared for the Symposium: Construction Industries
- ID/CONF.1/25  
Corr.1                      Sectoral Studies Prepared for the Symposium: Chemical Industry
- ID/CONF.1/26  
Corr.1                      Sectoral Studies Prepared for the Symposium: The Food Processing Industries
- ID/CONF.1/27                      Industrial Location Policies and Policy Measures in Developing Countries
- ID/CONF.1/28                      The Organization of Industrial Research in Developing Countries  
(summary of ID/CONF.1/B.14).

General papers (continued)

- ID/CONF.1/29  
Corr.1 Policies and Programmes for the Establishment of Industrial Estates
- ID/CONF.1/30 Issues and Problems in Manpower Development for Industrialization
- ID/CONF.1/31 Skill Requirements for Industrialization
- ID/CONF.1/32 Effective Utilization of Manpower for Industrialization
- ID/CONF.1/33 Education and Training Programmes for Industrialization
- ID/CONF.1/34 Sectoral Studies Prepared for the Symposium: Iron and Steel Industries
- ID/CONF.1/35 Planning for Industrial Safety and Health in the Place of Work  
(summary of ID/CONF.1/B.6)
- ID/CONF.1/36 The Health Aspects of Industrialization
- ID/CONF.1/37 Major Activities of the ECAFE Secretariat in the Field of Industrial Development Since the Conclusion of the First Asian Conference on Industrialization  
(summary of ID/CONF.1/B.5)
- ID/CONF.1/38 Sectoral Studies: Fertilizer Industry
- ID/CONF.1/39 The Social Aspects of Industrial Development
- ID/CONF.1/40 Technical Information Services for Industry
- ID/CONF.1/41 Advance Report on the Industrialization Project Conducted by the Development Centre of the Organization for Economic Co-operation and Development
- ID/CONF.1/42 Sectoral Studies Prepared for the Symposium: Iron Ore Industry
- ID/CONF.1/43 Sectoral Studies Prepared for the Symposium: Non-ferrous Metals Industry
- ID/CONF.1/44  
Corr.1 Financial Assistance by OECD Members for Industrial Development in Developing Countries

General papers (continued)

- ID/CONF.1/45  
Corr.1      Technical Assistance by OECD Members for Industrial  
Development in Developing Countries
- ID/CONF.1/46  
Add.1      Industrial Development Survey
- ID/CONF.1/47      The Role of the Industrial Sector in Economic Development
- ID/CONF.1/48  
Adds.1 and 2      United Nations Industrial Development Organization  
Programme of Special Industrial Services
- ID/CONF.1/49      Memorandum of the Brazilian Delegation on the Agenda of  
the International Symposium for Industrial Development
- ID/CONF.1/50      Activities of the United Nations System of Organizations  
in the Field of Industrial Development
- ID/CONF.1/51      Activities of the United Nations System of Organizations  
in the Field of Industrial Development. Summary Data on  
Operational Activities of the Centre for Industrial  
Development
- ID/CONF.1/52      Activities of the United Nations System of Organizations  
in the Field of Industrial Development. Activities of the  
Economic Commission for Africa in the Field of Industrial  
Development
- ID/CONF.1/53  
Corr. 1      Application of Science and Technology to Development:  
Arrangements for the Transfer of Operative Technology to  
Developing Countries. Progress Report
- ID/CONF.1/54      Financing of Economic Development: Promotion of Private  
Foreign Investment in Developing Countries: Summary and  
Conclusions
- ID/CONF.1/55      Export Credits and Development Financing: Part One:  
Current Practices and Problems
- ID/CONF.1/55  
Add.1      Export Credits and Development Financing: Part Two:  
National Export Credit Systems
- ID/CONF.1/56      The Need for an Export-oriented Pattern of Industrializa-  
tion
- ID/CONF.1/57      Message from the Secretary-General of the United Nations

General papers (continued)

- ID/CONF.1/58 Statement by Mr. Abdel-Rahman, Executive Director of UNIDO, Executive Secretary of the Symposium
- ID/CONF.1/59 and continuations Drafts for Report on International Symposium on Industrial Development
- ID/CONF.1/60 Add.1 Recommendations presented to the Symposium by Developing Countries. Recommendations presented to the Symposium by Industrially Advanced Countries
- ID/CONF.1/61 Recommendation on Establishment of National Committees
- ID/CONF.1/62 (ID/B/21) Report of the International Symposium on Industrial Development, Athens, November-December 1967

BACKGROUND PAPERS

- ID/CONF.1/B.1 The Supply of Skills to the Industrial Sector in Developing Countries
- ID/CONF.1/B.2 and Corr.1 Tax Incentives for Industrial Development
- ID/CONF.1/B.3 Criteria for Location of Industrial Plants: (Changes and Problems)
- ID/CONF.1/B.4 Scientific and Technical Documentation
- ID/CONF.1/B.5 Major Activities of the ECAFE Secretariat in the Field of Industrial Development Since the Conclusion of the First Asian Conference on Industrialization
- ID/CONF.1/B.6 Planning for Industrial Safety and Health in the Place of Work
- ID/CONF.1/B.7 Social Aspects of Industrialization
- ID/CONF.1/B.8 The Role of National Development Finance Companies in Industrial Development
- ID/CONF.1/B.9 Measures to Increase Commercial Bank Financing of Industry in Developing Countries

Background papers (continued)

- |                          |                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------------------------|
| ID/CONF.1/B.10<br>Corr.1 | Industrial Consultation Services in Europe                                                            |
| ID/CONF.1/B.11           | Industrial Applications of Radioisotopes                                                              |
| ID/CONF.1/B.12           | Application of Nuclear Energy for Power Production and for Water Desalination                         |
| ID/CONF.1/B.13           | Policies and Plans of Developing Countries Regarding the Public Sector in Manufacturing Industries    |
| ID/CONF.1/B.14<br>Corr.1 | The Organization of Industrial Research in Developing Countries                                       |
| ID/CONF.1/B.15           | Surplus Agricultural Labour and the Development of Industry                                           |
| ID/CONF.1/B.16           | Wages and Industrial Development                                                                      |
| ID/CONF.1/B.17           | Progressive Industrial Technology for Developing Countries                                            |
| ID/CONF.1/B.18           | Employment Aspects of Industrialization                                                               |
| ID/CONF.1/B.19           | Training of Small Manufacturing Enterprises in Developing Countries                                   |
| ID/CONF.1/B.20           | Mechanical Industries and Industrialization: Economic Aspects of Mechanical Industries                |
| ID/CONF.1/B.21           | Education and Training Programmes for Industrialization                                               |
| ID/CONF.1/B.22           | Trends and Prospects of World Fertilizer Production Capacity as Related to Future Needs               |
| ID/CONF.1/B.23<br>Corr.1 | Economies of Scale at Small Integrated Steelworks                                                     |
| ID/CONF.1/B.24           | Export Marketing Organizations                                                                        |
| ID/CONF.1/B.25           | Industrial Development in Countries of the Middle East                                                |
| ID/CONF.1/B.26           | Measures for Increasing the Exports and Export Potential of Forest Products from Developing Countries |
| ID/CONF.1/B.27           | Prospects for Exports of Processed Iron Ore from Developing Countries                                 |

Background papers (continued)

ID/CONF.1/B.28	Export Trade in Fishery Products from Developing Countries
ID/CONF.1/B.29	Short and Medium-term Prospects for Export of Manufactures from Selected Developing Countries: Argentina
ID/CONF.1/B.30	Short and Medium-term Prospects for Export of Manufactures from Selected Developing Countries: Brazil
ID/CONF.1/B.31	Short and Medium-term Prospects for Export of Manufactures from Selected Developing Countries: Chile
ID/CONF.1/B.32	Short and Medium-term Prospects for Export of Manufactures from Selected Developing Countries: Thailand
ID/CONF.1/B.33	Notes on Industrial Development Strategy in Latin America

GOVERNMENT PAPERS<sup>10/</sup>

		<u>Submitted by</u>
ID/CONF.1/G.1 and SUMMARY	Practice of Industrial Research and Development	Netherlands
ID/CONF.1/G.2 SUMMARY	Preparing a Fertilizer Project in a Developing Country	Netherlands
ID/CONF.1/G.3 SUMMARY	Some Aspects of the Infrastructure Needed to Ensure the Successful Operation of Fertilizer Plants in Developing Countries	Netherlands
ID/CONF.1/G.4 and SUMMARY	Quality Control and Standardisation as Conditions of Industrial Growth	Netherlands
ID/CONF.1/G.5 and SUMMARY	Petrochemicals in Developing Countries	Netherlands
ID/CONF.1/G.6 and SUMMARY	The Development Cycle Applied to Low-Cost Housing	Netherlands

<sup>10/</sup> In general, government papers were issued only in the original language and a brief summary was issued in English, French, Spanish and Russian. If the Government submitted a very short paper, it was treated as a summary paper and issued in the four languages.

Government papers (continued)

ID/CONF.1/G.7 and SUMMARY	Programming and Designing of Technical Training Centres	Netherlands
ID/CONF.1/G.8 and SUMMARY	The Role of Geological Prospecting in Speeding up Industrial Development	Byelorussian SSR
ID/CONF.1/G.9 and SUMMARY	The Establishment of the Agricultural Processing Industry and Its Role in the Development of Other Branches of the Economy	Byelorussian SSR
ID/CONF.1/G.10 SUMMARY	Methods and Models of Location of Industrial Plants	Byelorussian SSR
ID/CONF.1/G.11 and SUMMARY	Problems of Development of Export-oriented Industries in Developing Countries with regard to the Expansion of their Co-operation with Socialist Countries	USSR
ID/CONF.1/G.12 and SUMMARY	Diversification of the Economy and Strategy of Industrial Development	USSR
ID/CONF.1/G.13 and SUMMARY	Experience of Socialist Countries' Co-operation in the Field of Industrialization	USSR
ID/CONF.1/G.14 and SUMMARY	The Role of the State and the State Sector in the Industrialization of the Developing Countries	USSR
ID/CONF.1/G.15 and SUMMARY	The Use of Input-output Analysis in the Preparation of Economic Development Programmes	USSR
ID/CONF.1/G.16 and SUMMARY	Possibilities of Utilizing Small-scale Industry in the Progress of Economic Development	USSR
ID/CONF.1/G.17 <sup>11/</sup>	The "Cassa per il Mezzogiorno" and the Industrial Development of Southern Italy	Italy

<sup>11/</sup> No summaries issued.

Government papers (continued)

ID/CONF.1/G.18 and SUMMARY	Research and Development in Yugoslav Industry	Yugoslavia
ID/CONF.1/G.19 and SUMMARY	Financing of Industrial Development in Yugoslavia	Yugoslavia
ID/CONF.1/G.20 and SUMMARY	The Development and Characteristics of the Social Organization of Yugoslav Industry	Yugoslavia
ID/CONF.1/G.21 and SUMMARY	Integration, Specialization and Co- operation in the Industry of Yugoslavia	Yugoslavia
ID/CONF.1/G.22 and SUMMARY	Choice of Trends and Methods of Industrial Development in Yugoslavia	Yugoslavia
ID/CONF.1/G.23 and SUMMARY	Financing of Economic Development of Yugoslavia from Foreign Sources	Yugoslavia
ID/CONF.1/G.24 and SUMMARY	The Function and Growth of Personnel in Yugoslavia's Industrial Development	Yugoslavia
ID/CONF.1/G.25 and SUMMARY	Self-management and the Planning System in Yugoslavia with Special Reference to Industry	Yugoslavia
ID/CONF.1/G.26 and SUMMARY	Projections of the Industrial Structure in Middle-term Industrialisation Plans	Yugoslavia
ID/CONF.1/G.27 and SUMMARY	Yugoslavia's Industrialization and the Development of her Under-developed Regions	Yugoslavia
ID/CONF.1/G.28 and SUMMARY	Yugoslavia's Co-operation with the Developing Countries with a View to their Industrialisation	Yugoslavia
ID/CONF.1/G.29 and SUMMARY	The Industrialisation of Yugoslavia and the Inclusion of Yugoslav Industry in the International Division of Labour	Yugoslavia
ID/CONF.1/G.30 and SUMMARY	The Industrial Development Policy of Yugoslavia	Yugoslavia



Government papers (continued)

ID/CONF.1/G.31 SUMMARY	Netherlands Technical Aid for Industrialization	Netherlands
ID/CONF.1/G.32 and SUMMARY	Recent Developments in Industrialization in the Maltese Islands	Malta
ID/CONF.1/G.33 and SUMMARY	Redeployment of Private Capital in Developing Countries	Netherlands
ID/CONF.1/G.34 Add.1 and SUMMARY	Some Industrialization Aspects of Densely Populated Areas	Netherlands
ID/CONF.1/G.35 and SUMMARY	Distribution Channels	Netherlands
ID/CONF.1/G.36 and SUMMARY	Co-operation Between Countries as a Factor of Economic Development	USSR
ID/CONF.1/G.37 and SUMMARY	Science and Industrial Development	USSR
ID/CONF.1/G.38 and SUMMARY	Principles and Models of Industrial Location	USSR
ID/CONF.1/G.39 and SUMMARY	Economic Regionalism as a Method for Co-ordinating Economic Development in Africa	USSR
ID/CONF.1/G.40 and SUMMARY	Ways of Developing the Iron and Steel Industry to Meet the Require- ments of the Developing Countries	USSR
ID/CONF.1/G.41 and SUMMARY	Development of the Building and Construction Industry	USSR
ID/CONF.1/G.42 and SUMMARY	Influence of the Technical Research Revolution on the Development of the Extractive Industry in Asia and Africa	USSR
ID/CONF.1/G.43 and SUMMARY	Some Aspects of United Kingdom Experience in Arranging the Financing of Industrial Projects in Developing Countries	United Kingdom

Government papers (continued)

ID/CONF.1/G.44 and SUMMARY	Some Views on Feasibility Studies of Industrial Projects in Developing Countries	United Kingdom
ID/CONF.1/G.45 and SUMMARY	United States Programmes and Activities Contributing to the Industrialization of Developing Countries	United States
ID/CONF.1/G.46 SUMMARY	Technology and World Trade	United States
ID/CONF.1/G.47 <sup>12/</sup>	The Location of Industries in the Socialist Republic of Romania	Romania
ID/CONF.1/G.48 and SUMMARY	Development and Situation of the Aluminium Industry in Hungary	Hungary
ID/CONF.1/G.49 and SUMMARY	Hungary and Industrialization in the Developing Countries	Hungary
ID/CONF.1/G.50 and SUMMARY and SUMMARY Corr.1	Forms of Czechoslovakia's Economic Relations with Developing Countries and Its Contribution to the Latter's Industrialization	Czechoslovakia
ID/CONF.1/G.51 SUMMARY	Accelerating Industrial Progress in Developing Countries	Israel
ID/CONF.1/G.52 and SUMMARY	The Industrialization of the People's Republic of Bulgaria: Its Nature, Present State and Prospects	Bulgaria
ID/CONF.1/G.53 and SUMMARY	Economic and Technical Co-operation between the People's Republic of Bulgaria and the Developing Countries	Bulgaria
ID/CONF.1/G.54 and SUMMARY	The Experiences of the Industrializa- tion of Slovakia	Czechoslovakia
ID/CONF.1/G.55 and SUMMARY	Some Views on Manpower in Economic Development	Sweden

Government papers (continued)

ID/CONF.1/G.56 <sup>13/</sup>	The Function and Importance of Integrated Agricultural Organizations in the Development of Agriculture and Food Industries	Yugoslavia
ID/CONF.1/G.57 <sup>13/</sup>	Formulation and Implementation of Industrial Programmes: The Greek Experience	Greece
ID/CONF.1/G.58 <sup>13/</sup>	Domestic Financing of Industry	Greece
ID/CONF.1/G.59 <sup>13/</sup>	The Textile Industry in Greece	Greece
ID/CONF.1/G.60 <sup>13/</sup>	Evolution of the Greek Petrochemical Industry	Greece
ID/CONF.1/G.61 <sup>13/</sup>	Industrialisation and Employment in Greece	Greece
ID/CONF.1/G.62 <sup>13/</sup>	Problems and Limitations of Small-scale Industry: The Greek Experience	Greece
ID/CONF.1/G.63 SUMMARY	Location of National Industry Within a Wider Economic Context	Greece
ID/CONF.1/G.64 SUMMARY	External Financing of Industrial Development: Some Proposals to Encourage the Flow of Private Capital	Greece
ID/CONF.1/G.65 and SUMMARY	The Role of Engineering Industries in the Industrialization of Developing Countries	USSR
ID/CONF.1/G.66 and SUMMARY	Policies and Measures Taken by the Government for the Training of Workers and Specialists in Connection with Industrialization: The Case of the Ukrainian SSR	Ukrainian SSR
ID/CONF.1/G.67 and SUMMARY	Position, Problems and Perspectives of the Development of Major Branches of Industry: The Case of the Ukrainian SSR	Ukrainian SSR

Government papers (continued)

ID/CONF.1/G.68 and SUMMARY	Small-scale Industry in Yugoslavia	Yugoslavia
ID/CONF.1/G.69 SUMMARY	Some Aspects of the Financing of Industrialisation in Developing Countries	Netherlands
ID/CONF.1/G.70 <sup>14/</sup>	Organization of Industrial Statistics in Yugoslavia	Yugoslavia
ID/CONF.1/G.71 and SUMMARY	Manpower Policy: A Swedish Example	Sweden
ID/CONF.1/G.72 and SUMMARY	The Role of Trade Unions in Industrial Development	Sweden
ID/CONF.1/G.73 and SUMMARY	Establishment of Manufacturing Units for Pharmaceuticals in Developing Countries	Sweden
ID/CONF.1/G.74 and SUMMARY	United Kingdom Contributions to Technological Development in Developing Countries	United Kingdom
ID/CONF.1/G.75 SUMMARY	Heavy Transport and Industrial Development: The Berliet Company Experience	France
ID/CONF.1/G.76 <sup>14/</sup>	Automobile Assembly Plants as a Factor in the Industrial Expansion of Developing Countries: The Example of Renault	France
ID/CONF.1/G.77 <sup>14/</sup>	Financial Aid by France for the Industrialization of the Developing Countries	France
ID/CONF.1/G.78 SUMMARY	Construction of a Fully Automated Sulphuric Acid Factory	France
ID/CONF.1/G.79 <sup>14/</sup>	Vocational Training and Education for Small and Medium-size Enterprises	Israel

<sup>14/</sup> No summaries issued.

Government papers (continued)

ID/CONF.1/G.80 SUMMARY	The Role of Private Enterprise in the Industrialization of the Developing Countries	Switzerland
ID/CONF.1/G.81 SUMMARY	The Importance of Patents for Technological Progress in the Developing Countries	Switzerland
ID/CONF.1/G.82 <sup>15/</sup>	Activities of the Office of the Swiss Technical Co-operation in the Field of Industrial Development	Switzerland
ID/CONF.1/G.83 SUMMARY	The Position of the Swiss Government with Regard to the Problems of Industrial Development	Switzerland

REGIONAL SYMPOSIA REPORTS AND PAPERS

Reports of the Regional Symposia

ID/CONF.1/R.R./1 and Corr.1	Report of the Symposium on Industrial Development in Africa
ID/CONF.1/R.R./2 and Corr.1	Report of the Asian Conference on Industrialization
ID/CONF.1/R.R./3 and Corr.1	Report of the Symposium on Industrial Development in Latin America
ID/CONF.1/R.R./4	Report of the Symposium on Industrial Development in the Arab Countries

Papers and Proceedings of the Regional Symposia

ID/CONF.1/R.B.P./1	Industrial Development in Africa
ID/CONF.1/R.B.P./2 and Corr.1	Industrial Development in Asia and the Far East, Vols. I-IV

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<sup>15/</sup> No summaries issued.

Papers and Proceedings of the Regional Symposia (continued)

ID/CONF.1/R.B.P./3 and Add.1-16 and Add.6/Corr.1	Industrial Development in Latin America
ID/CONF.1/R.B.P./4	The Main Sectors of Latin American Industry
ID/CONF.1/R.B.P./5	The Process of Industrialization in Latin America
ID/CONF.1/R.B.P./6	Industrial Development in the Arab Countries

SUMMARY RECORDS

ID/CONF.1/SR. 1-11	Provisional Summary Records of the Plenary Meetings, 29 November - 19 December
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INFORMATION SERIES<sup>16/</sup>

ID/CONF.1/INF.1	Plan of documentation for the Symposium
ID/CONF.1/INF.2	Documents prepared for the Symposium
ID/CONF.1/INF.3/Rev.1	Provisional list of delegations
ID/CONF.1/INF.4	Arrangements for the opening meeting of the Symposium
ID/CONF.1/INF.5	Handbook for participants
ID/CONF.1/INF.10	Statement by Dr. Abbas Ammar, President of the International Labour Organisation
ID/CONF.1/INF.15	The preparation of the report of the Symposium

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<sup>16/</sup> Inf. 6-9 and 11-14 were not issued.

INFORMATION PAPERS ISSUED DURING THE SYMPOSIUM <sup>17/</sup>

- Information paper No. 1 UNIDO - New Body Functioning since 1 January 1967
- Information paper No. 2 Major UNIDO Studies Prepared for World Symposium in Athens
- Information paper No. 3 Ibrahim Helmi Abdel-Rahman
- Information paper No. 4 Growth in Industrial Production of Developing Countries as a Whole Analyzed in Study for International Symposium
- Information paper No. 5 First Comprehensive Review of Industrial Development
- Information paper No. 6 Points from First United Nations Survey of Industrial Development Growth

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<sup>17/</sup> A journal containing the daily programme of meetings was issued in Athens each day of the symposium session. Journals numbered 1 to 18 were issued in the period from 28 November to 19 December 1967.

(f) LIST OF UNOFFICIAL DOCUMENTS PRESENTED TO THE SYMPOSIUM  
BY AGENDA ITEM

The papers listed below by agenda item were reproduced by the governments and organizations indicated and presented to the Symposium as unofficial documents. They are shown below under the agenda items for which they were presented.

AGENDA ITEM 1: GENERAL SURVEY OF WORLD INDUSTRY WITH  
SPECIAL REFERENCE TO DEVELOPING COUNTRIES

		<u>Presented by</u>	<u>Languages</u>
E/CN.12/L.17	The Industrial Development of Argentina	ECLA	English
E/CN.12/L.18	The Industrial Development of Bolivia	ECLA	English
E/CN.12/L.19	The Industrial Development of Brazil	ECLA	English
E/CN.12/L.20	The Industrial Development of Central America	ECLA	English
E/CN.12/L.21	The Industrial Development of Chile	ECLA	English
E/CN.12/L.22	The Industrial Development of Columbia	ECLA	English
E/CN.12/L.23	The Industrial Development of Cuba	ECLA	English
E/CN.12/L.24	The Industrial Development of Ecuador	ECLA	English
E/CN.12/L.25	The Industrial Development of Guyana	ECLA	English
E/CN.12/L.26	The Industrial Development of Mexico	ECLA	English
E/CN.12/L.27	The Industrial Development of Panama	ECLA	English



		<u>Presented by</u>	<u>Languages</u>
E/CN.12/L.28	The Industrial Development of Paraguay	ECLA	English
E/CN.12/L.29	The Industrial Development of Peru	ECLA	English
E/CN.12/L.30	The Industrial Development of Trinidad and Tobago	ECLA	English
E/CN.12/L.31	The Industrial Development of Uruguay	ECLA	English
E/CN.12/L.32	The Industrial Development of Venezuela	ECLA	English
--	A Country Study on India	India	English
--	Status of Industrial Development in Libya	Libya	English
--	The Key Industries of the Ukrainian Republic, Their Problems and Prospects	Ukrainian SSR	E F S
--	Experience in Co-operation between the Socialist Countries in Industrialisation	USSR	E F S

AGENDA ITEM 2: SITUATION, PROBLEMS AND PROSPECTS OF MAIN INDUSTRIAL SECTORS

IRON AND STEEL INDUSTRY

E.25	The LD-Steelmaking Process in Developing Countries	Austria	English
--	Ways of Meeting the Steel Requirements of Developing Countries	USSR	E F S

ENGINEERING INDUSTRY

--	The Engineering Industry and Industrialization Volume I: Chapters I - V Volume II: Annex (Statistical Tables)	ECE	English
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		<u>Presented by</u>	<u>Languages</u>
E.27	Experience in Technical Cooperation with Developing Countries in the Field of Shipbuilding	Austria	English
- -	Car Assembly Plants as a Factor of Industrial Expansion in Developing Countries: Example - Renault	France	E S
E.11	Electronic Assembly - Which Way?	Netherlands	English
- -	Role of Mechanical Engineering in Industrialization of Developing Countries	USSR	E F S
BASIC CHEMICALS AND PETROCHEMICALS INDUSTRY			
- -	French Petroleum Institute Contribution in the Creation of Petrochemical Industries in Developing Countries	France	E F
SYNTHETIC FERTILIZERS INDUSTRY			
E.21	In Which Way Can the Fertilizer Industry Assist Developing Countries in Solving Their Problems	Austria	English
PROCESSED FOOD INDUSTRY			
E.23	The Development of a Cereal Economy Master Plan - Basic Considerations	Austria	English
BUILDING MATERIALS AND WOOD PRODUCTS INDUSTRY			
- -	Development of the Building Materials and Components Sector	ECE	English
CONSTRUCTION INDUSTRY			
- -	The Development of the Soviet Building Industry	USSR	E F S
GENERAL DISCUSSION, INCLUDING STANDARDIZATION			
- -	Standardization in the Republic of China	China	English

Presented by      Languages

AGENDA ITEM 3: POLICIES AND MEASURES IN DEVELOPING COUNTRIES

(a) General issues of industrial policy and its implementation

--	The Pattern of Austrian Industrial Growth and Some Implications for Industrial Policy	Austria	English
--	The Pattern of Austrian Industrial Growth and Some Implications for Industrial Policy - Summary	Austria	E F
E.24	The Problems Encountered by Industrial Enterprises in Developing Countries	Austria	English
--	Industrial Development in the Republic of China	China	English
--	Technics and Economic Development - Integration of Agricultural Development and Industrial Production	Italy	English
E.12	Dutch Trade and Industry and Industrialization in Developing Countries	Netherlands	English
E.13	Ownership and Management of Manufacturing Enterprises	Netherlands	English
--	Diversification of Economy and the Strategy of Industrial Development	USSR	E F S
--	Impact of the Scientific and Technical Revolution on the Development of the Mineral Industries of Asian and African Countries	USSR	E F S
--	The Role of the State and the State Sector in the Industrialisation of the Developing Countries	USSR	E F S
--	Science and Industrial Development (Central Asian Soviet Republics: A Practical Experience)	USSR	E F S

		<u>Presented by</u>	<u>Languages</u>
--	Strategy of Overseas Industrialization	CEDIMOM	E F
<b>(b) <u>Formulation and implementation of industrial programmes</u></b>			
E.24	The Problems Encountered by Industrial Enterprises in Developing Countries	Austria	English
--	A Report on the Economic Planning of the Republic of China	China	English
--	Principles and Models for the Location of Industry	USSR	E F S
--	Utilisation of Inter-sectoral Balances in the Drawing Up of Economic Development Programmes	USSR	E F S
<b>(c) <u>Industrial manpower</u></b>			
E.24	The Problems Encountered by Industrial Enterprises in Developing Countries	Austria	English
--	Problems and Prospects of Manpower Resources in the Republic of China	China	English
--	Occupational Training for Industry in Developing Countries	Federal Republic of Germany	E F S
--	Manpower Requirements for Industrial Development in Nigeria	Nigeria	English
--	Industrialisation in the Ukraine and the Training of Skilled Labour and Specialists	Ukrainian SSR	E F S
<b>(d) <u>Domestic financing of industry</u></b>			
--	Industrial Financing in the Republic of China	China	English
--	Strategy of Overseas Industrialization	CEDIMOM	E F

	<u>Presented by</u>	<u>Languages</u>
<b>(f) <u>Industrial research and other technical services</u></b>		
-- Industrial Research Activities in the Republic of China	China	English
-- Impact of the Scientific and Technical Revolution on the Development of the Mineral Industries of Asian and African Countries	USSR	E F S
-- Science and Industrial Development (Central Asian Soviet Republics: A Practical Experience)	USSR	E F S
<b>(g) <u>Promotion of industrial exports and of export-oriented and import-substituting industries</u></b>		
-- Export Promotion in the Republic of China	China	English
-- Problems of the Export Sector of the Industry of Developing States apropos Their Expanding Co-operation with the Socialist Countries	USSR	E F S
<b>(h) <u>Small-scale industry</u></b>		
-- Small-scale Industry in the Republic of China	China	English
-- Small-scale Industries in Nigeria	Nigeria	English
-- The Possibilities of Using Small-scale Industry in the Process of Economic Development	USSR	E F S

**AGENDA ITEM 4. INTERNATIONAL ASPECTS OF INDUSTRIAL DEVELOPMENT**

<b>(a) <u>Regional co-operation</u></b>		
-- Regional Cooperation	China	English
-- Economic Regionalisation As a Method of Coordinating the Economic Development of Africa	USSR	E F S

		<u>Presented by</u>	<u>Languages</u>
- -	International Co-operation As a Factor of Economic Development	USSR	E F S
- -	Economic Co-operation of the CMEA Member Countries As a Factor Promoting the Accelerated Industrialization of the Formerly Less Developed Countries	Council for Mutual Economic Assistance	English
<b>(b) <u>External financing</u></b>			
E.24	The Problems Encountered by Industrial Enterprises in Developing Countries	Austria	English
- -	Industrial Financing in the Republic of China	China	English
- -	Capital Aid Extended by the Federal Republic of Germany for the Establishment of Industrial Enterprises in Developing Countries, and Experiences Accumulated in This Context	Federal Republic of Germany	E F S
- -	Promotion of Private Investments in Enterprises Located in Developing Countries	Federal Republic of Germany	E F S
- -	Strategy of Overseas Industrialization	CEDIMOM	E F
<b>(o) <u>Technical co-operation</u></b>			
E.27	Experience in Technical Cooperation with Developing Countries in the field of Shipbuilding	Austria	English
E.22	Experiences in Building Thermal Power Stations in Developing Countries	Austria	English
E.5	Canadian Governmental Assistance to the Process of Industrialization in Developing Countries	Canada	English
- -	The International Technical Cooperation Programs of the Republic of China	China	English

		<u>Presented by</u>	<u>Languages</u>
--	Car Assembly Plants As a Factor of Industrial Expansion in Developing Countries: Example - Renault	France	E S
--	The Continuous Casting of Steel and Its Evolution	France	E F S
E.8	Contribution of <u>Electricité de France</u> to the Industrial Exploitation of Energy in the Countries in Process of Development	France	E F S
E.10	<u>Electricité de France</u> and <u>Public Electricity Undertaking of Greece</u> Cooperation	France	E F S
--	French Petroleum Institute Contribution in the Creation of Petrochemical Industries in Developing Countries	France	E F
E.7	Industrialization Problems in Africa - Comments on the Conclusions of the Cairo Symposium	France	E F S
E.12	Dutch Trade and Industry and Industrialization in Developing Countries	Netherlands	English
--	Experience in Co-operation Between the Socialist Countries in Industrialization	USSR	E F S
--	International Co-operation as a Factor of Economic Development	USSR	E F S
--	Pilot Survey on Technical Assistance Extended by Private Enterprise	OECD	E F



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United Nations Industrial Development Organization

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## Industrial Development Board

REPORT OF THE  
INTERNATIONAL SYMPOSIUM ON INDUSTRIAL DEVELOPMENT

Corrigendum

Annex 1, page 114

Agenda item 4 International aspects of industrial development

(b) External Financing

Recommendations

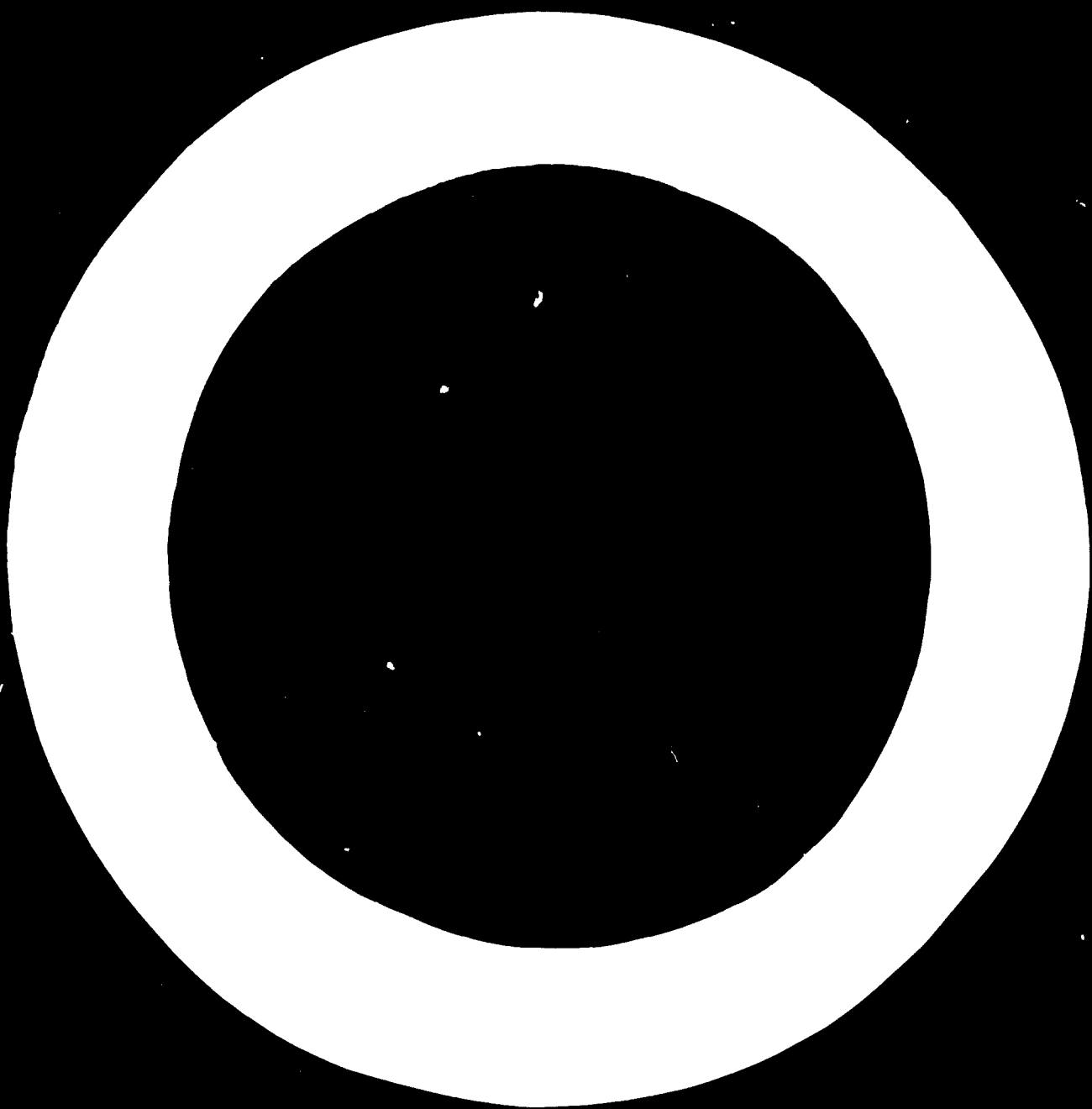
Paragraph 20, sub-paragraph (6), second line of sub-paragraph

Insert "the" before "undertaking" and "of" before "a study" so that  
the sub-paragraph reads as follows:

- (6) UNIDO should consult with appropriate international financial institutions and governments with a view to the undertaking as soon as possible of a study aimed at defining objective and equitable conditions for stipulating the flow of capital to developing countries.

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United Nations Industrial Development Organization

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2 February 1968  
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## Industrial Development Board

Second Session

Vienna, 17 April - 14 May 1968

REPORT OF THE  
INTERNATIONAL SYMPOSIUM ON INDUSTRIAL DEVELOPMENT  
held in Athens 29 November - 19 December 1967

ADDENDUM 1 PARTICIPANTS AND STAFF OF  
THE INDUSTRIAL PROMOTION SERVICE

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\* Reissued for technical reasons.

id.63-118

THE INDUSTRIAL PROMOTION SERVICE

1. Concurrently with the International Symposium, held in Athens in November and December 1967, UNIDO launched its Industrial Promotion Service (IPS), an operation bringing together potential industrial "suppliers" and "consumers" of external financial and technical assistance.
2. Through governments participating in the Symposium, UNIDO had invited as "special guests" the representatives of a wide range of public and private aid organizations and of financial, consulting and industrial production firms. The object was to bring together those who would be interested in participating in the Service as "suppliers" of technical, financial or other assistance and those who would be "consumers" of such assistance.
3. Over 500 persons registered with the Industrial Promotion Service in Athens. About 300 were representatives of some 245 supplier organizations from 19 countries; over 200 were "consumers" from some 60 countries.
4. The major types of services offered by the "supplier" organizations were feasibility studies, training, joint ventures involving financial and technical participation, financial assistance, and turn-key projects.
5. As each participant registered, he was interviewed by an IPS service officer. The service officer interviewed each "supplier" to determine the types of services he was interested in providing. In the case of "consumers" the service officers inquired what specific problems or projects they wished to discuss. Staff members then sought to match the "suppliers" with the "consumers" and to notify both of the suggested contacts.
6. It is too early to evaluate the definitive results of these contacts, for few arrangements for joint action between "supplier" and "consumer" organizations were actually finalized in Athens. UNIDO requests that participants keep the Industrial Promotion Service informed as to developments and send in to UNIDO Headquarters comments or suggestions they may have on the pilot operation in Athens and on further promotional activities.
7. The list of participants and staff of the IPS in Athens is presented on the following pages.

PARTICIPANTS AND STAFF OF  
THE INDUSTRIAL PROMOTION SERVICE

**Note:** In general, representatives and subsidiaries of organizations and firms operating abroad have been listed under the country in which the main headquarters of the organization is located. An asterisk (\*) against the name indicates a representative registered as an official participant or observer in the Symposium.

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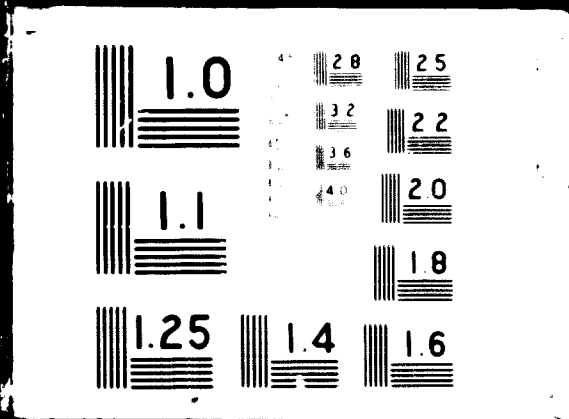


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