



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

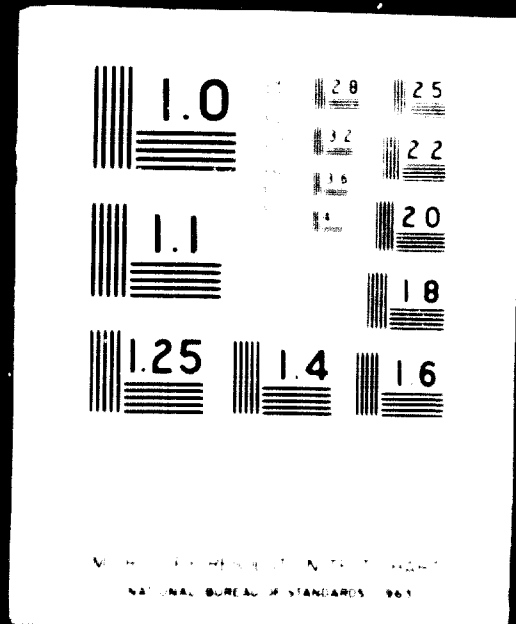
Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

I OF 2

DO

2022

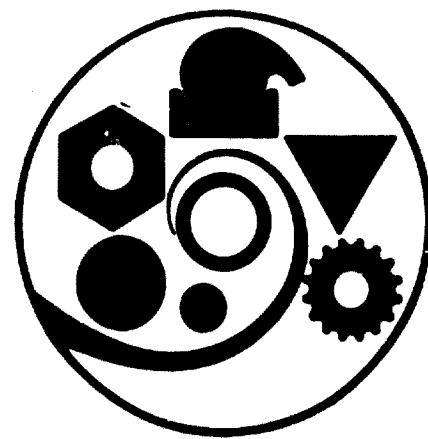


D02022

Industrial development

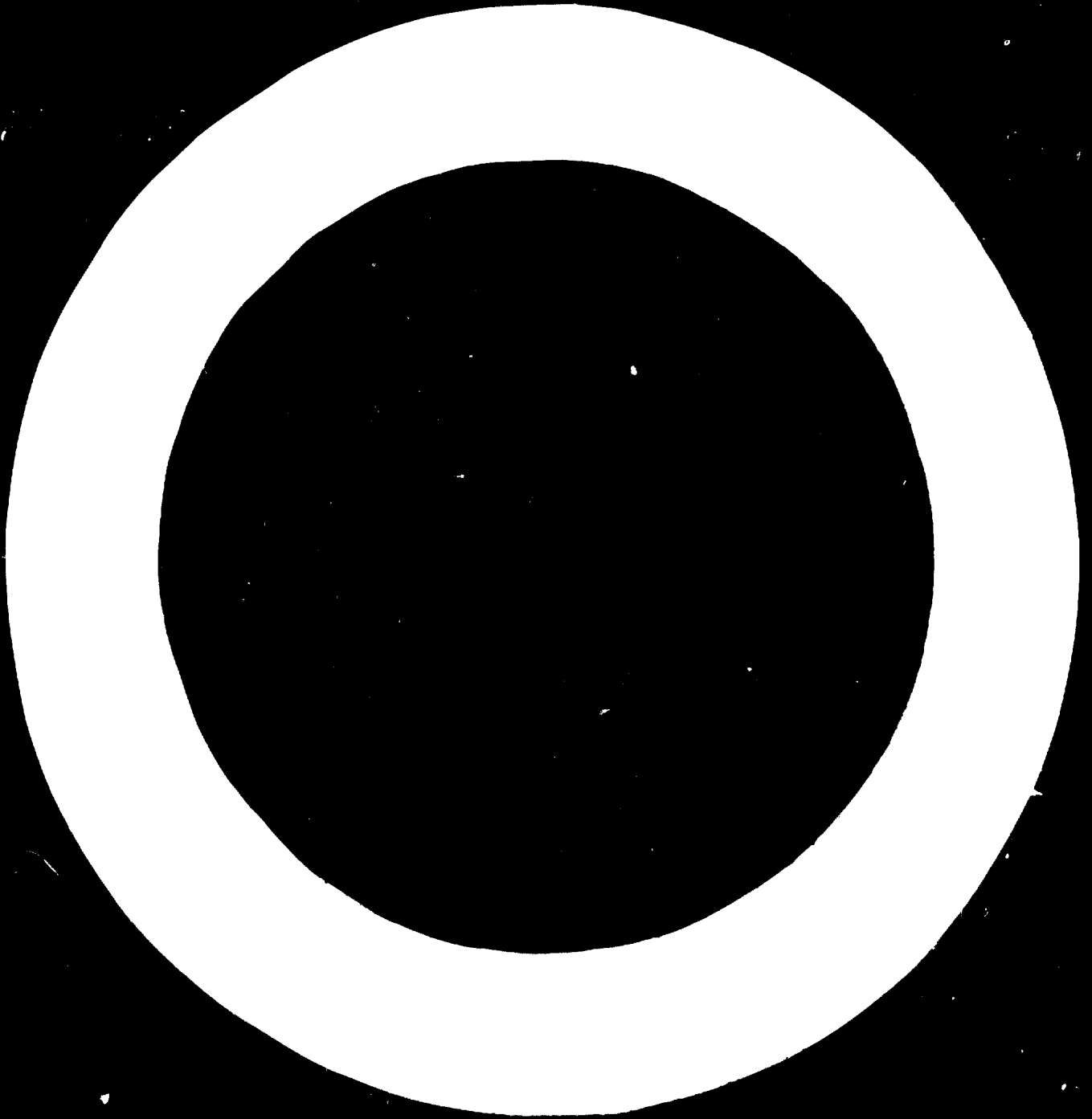
ASIA and the FAR EAST

Report of the Conference



UNITED NATIONS





The United Nations General Assembly, at its eighteenth session in 1963, adopted resolution 1940 (XVIII) calling for the convening of a World Symposium on Industrialization, to be preceded, as appropriate, by regional and sub-regional symposia. The Committee on Industry and Natural Resources of the Economic Commission for Asia and the Far East (ECAFE) at its seventeenth session considered the proposal and made recommendations on the agenda items to be covered by the ECAFE regional symposium on industrialization.

In view of the importance of industrialization to the developing countries of Asia and the Far East, the Commission, at its twenty-first session in 1965, felt that the proposed symposium should be raised to the level of a conference, thus making it feasible for Governments to send high-level representatives concerned with both policy and technical aspects of industrial development in their countries. The Commission, therefore, decided to change the name of the Symposium to the Asian Conference on Industrialization.

**REPORT
OF THE ASIAN CONFERENCE
ON INDUSTRIALIZATION**

*Manila, Philippines
6 to 20 December, 1965*

UNITED NATIONS
New York, 1966



E/CN.11/719
E/Conf.54/R.R./2



UNITED NATIONS
New York, 1988

PREFACE

The publication contains the report of the Asian Conference on Industrialization which was held at Manila, Philippines from 6 to 20 December 1965, under the sponsoring of the Economic Commission for Asia and Far East (ECAFE) with the co-operation of the United Nations Centre for Industrial Development.

In the case of translations and in some instances where the English of the original papers appeared to need clarification, some paraphrasing has been found necessary; explanatory footnotes have been added where deemed necessary or helpful to the maintenance of consistency in technical terminology.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or its authorities, or concerning the delimitation of the frontiers of any country or territory.



TABLE OF CONTENTS

	<i>Page</i>
First part: Preamble	
I. Background	1
II. Organization of the Conference	1
III. Basic issues and consideration	3
Second part: Programmes for action	
I. Action by the Conference on the findings and recommendations of the First Committee	7
1. Harmonization of national development plans	7
2. Development of key industries	9
(a) Iron and steel industry	10
(b) Aluminium industries	11
(c) Engineering industries	13
(d) Chemical industries	14
(e) Pesticides	16
(f) Oils and fats industries	17
(g) Rubber industries	20
(h) Silicate industries	21
(i) Forest products industries	22
(j) Construction industry	24
(k) Food processing industries	25
(l) Pharmaceutical industries	26
(m) Textile industries	28
(n) Small-scale industries	29
II. Action by the Conference on the findings and recommendations of the Second Committee ..	31
1. Mobilization of financial resources	31
2. Expansion of trade in manufactures and semi-manufactures	34
III. Action by the Conference on the findings and recommendations of the Third Committee ..	36
1. Advancement of technological level	36
(a) Industrial research	37
(b) Industrial design	37
(c) Standardization	38
(d) Transfer of technology	38
2. Strengthening of institutional arrangements	39
(a) Industrial planning and programming	39
(b) Organization for industrial development	40
(c) Improvement of marketing facilities	41
(d) Manpower development and employment	41
(e) Management development and productivity	41
3. Development of infrastructure	42
(a) Industrial location and estates	42
(b) Energy resources, especially electric power	43
(c) Transport, including shipping	44

	<i>Page</i>
IV. Action by the Conference on the findings and recommendations of the Fourth Committee ..	45
(Machinery for implementation)	
(a) The need for action	45
(b) Existing arrangements	45
(c) Essential considerations	46
(d) Recommendations	46
V. Suggested items for inclusion in the agenda of the International Symposium on Industrial Development in 1967	49

Third part: Resolutions

I. Resolution on Asian industrialization	51
II. Resolution on the International Symposium on Industrial Development	52

Fourth part: Policy statements

A. Opening addresses	55
1. Address by the President of the Republic of the Philippines	55
2. Address by the Executive Secretary of ECAFE	56
3. Address by the Chairman of the Conference	58
4. Address by the United Nations Commissioner for Industrial Development	59
B. Statements of delegations of member and associate member countries of the region	61
Australia	61
Brunei	62
Ceylon	64
China	67
Hong Kong	70
India	71
Iran	73
Japan	74
Korea, Republic of	75
Laos	77
Malaysia	78
Nepal	80
New Zealand	82
Pakistan	84
Philippines	86
Singapore	88
Thailand	89
Viet-Nam, Republic of	90
C. Closing address of the Chairman of the Conference	93

Fifth part: Appendices

I. List of participants	95
II. List of documents	101

FIRST PART: PREAMBLE

I. Background

1. The United Nations General Assembly at its eighteenth session in 1963 adopted resolution 1940 (XVIII), calling for the convening of a World Symposium on Industrialization to be preceded, as appropriate, by the regional and sub-regional symposia. The Committee on Industry and Natural Resources of the Economic Commission for Asia and the Far East (ECAFE) at its seventeenth session considered the proposal and made recommendations on the agenda items to be covered by the ECAFE regional symposium on industrialization.

2. In view of the importance of the symposium to the developing countries of Asia and the Far East, the Commission, at its twenty-first session in 1965, felt that it should be raised from the level of a symposium to that of a conference, thus making it feasible for the Governments to send high level officials who were concerned with both the policy and technical aspects of industrial development in their respective countries. The Commission therefore, decided to change the name of the Symposium to the Asian Conference on Industrialization.¹

3. The Commission considered that "the Conference, apart from being a desirable preliminary to the World Industrialization, could also stand in its own right as a regional forum for the identification of common problems of industrialization and the identification of possible solutions. The Conference should be approached in a spirit of seeking co-operation not only among member countries of the region but also with other countries of the world. It was considered that, in industrial development, the national and international attitudes would be more flexible than in the field of international trade. However, wide deviations in range and depth of industrial development within the region indicated that full advantage was not being taken of the opportunities for regional development. The Conference would offer an opportunity to examine current deficiencies and means of overcoming them by regional action."²

4. The Asian Conference on Industrialization also fits into the pattern of the special measures for regional economic co-operation initiated and implemented by the Commission, such as the First and Second Ministerial on Regional Economic Co-operation and the meetings on the Asian Development Bank.

¹ Para. 395, document E/4005.

² Para. 397, document E/4005.

It forms a part of the series of conferences convened by ECAFE, such as the Asian Conference on Economic Planners and the meetings on industrial sectors such as basic chemicals, fertilizers, iron and steel, petroleum and natural gas, and industrial estates.

5. Since the usefulness of the Asian Conference on Industrialization would greatly depend on the quality of the preparatory work, the Commission endorsed the proposal of the Committee on Industry and Natural Resources that a Preparatory Meeting of Senior Officials be organized before the Conference. That meeting of Senior Officials took place in September 1965 at Bangkok, Thailand. The meeting considered the documentation of the Conference, consisting of country studies prepared by Governments, sectoral studies by Expert Working Groups and other papers by the ECAFE secretariat, the United Nations Centre for Industrial Development and other international agencies. The Preparatory Meeting drew up the agenda for the Conference. It also submitted a series of recommendations on an integrated programme for action for the consideration of the Conference.

II. Organization of the conference

6. The First Asian Conference on Industrialization was held during the period 6 to 20 December 1965 at Manila, at the invitation of the Government of the Republic of the Philippines.

7. The Conference was attended by delegations from twenty-three member countries and associate-members, namely: Australia, Brunei, Ceylon, China, France, Hong Kong, India, Iran, Japan, the Republic of Korea, Laos, Malaysia, Nepal, the Netherlands, New Zealand, Pakistan, the Philippines, the Republic of Viet Nam, Singapore, Thailand, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America. Delegations from Belgium,¹ Czechoslovakia,¹ the Federal Republic of Germany,² Israel,¹ Italy,¹ and Sweden¹ attended in a consultative capacity.

8. Representatives of the United Nations Special Fund (UNSF), and three United Nations specialized agencies, namely, the International Labour Organization (ILO), the Food and Agriculture Organization (FAO) and the World Health Organization (WHO),

¹ Members of the United Nations participating in a consultative capacity under paragraph 9 of the terms of reference of the Commission.

² Participating in a consultative capacity under Economic and Social Council resolution 617 (XXII) of 27 July 1956.

and International Atomic Energy Agency (IAEA), and two inter-governmental organizations, namely, the Asian Productivity Organization (APO), and the Bureau of the International Union for the Protection of Industrial Property (BIRPI); and four non-governmental organizations, namely, the International Chamber of Commerce (ICC), the International Confederation of Free Trade Unions (ICFTU), the International Federation of Christian Trade Unions (IFCTU), and the World Federation of United Nations Associations (WFUNA) were present as observers.

9. Officers from the United Nations Centre for Industrial Development and from the Secretariat of the United Nations Conference on Trade and Development were also present at the Conference.

10. A list of representatives and observers is attached as appendix I.

11. The Conference was inaugurated by His Excellency, President Diosdado Macapagal of the Republic of the Philippines. On the opening day, statements were made by the Executive Secretary of the United Nations Economic Commission for Asia and the Far East, U Nyun, and by the United Nations Commissioner for Industrial Development, Mr. Abdel-Rahman. The full texts of these statements are included in the Fourth Part, "Policy Statements", of these proceedings.

12. The Conference elected the Hon. Cornelio Balmaceda, Secretary of Commerce and Industry of the Philippines and the leader of the Philippine delegation as its Chairman; H.E. Air Marshal Muni Mahasandana Veijyant Rangsrishit, Minister of Industry of Thailand and the leader of the Thai delegation, as the First Vice-Chairman; H.E. Mr. Nagendra Prasad Rijal, Minister for Industries of Nepal and leader of the Nepalese delegation, as the Second Vice-Chairman; and H.E. Mr. Inpeng Souryadhay, Minister of Planning of Laos and leader of the Laotian delegation, as the Third Vice-Chairman.

13. The Conference adopted the following agenda:

- I. Opening addresses
- II. Election of the chairman and vice-chairmen
- III. Adoption of the agenda
- IV. Over-all evaluation of the progress and problems of industrialization in the ECAFE region
- V. Measures and action to be taken for accelerating industrial development in the developing countries of the region —
 - (a) Ways and means for achieving, to the extent possible, harmonization of national development plans, relating particularly to industrial development
 - (b) Development of key industries in the ECAFE region
 - (c) Mobilization of financial resources
 - (d) Expansion of trade in manufactures and semi-manufactures

- (e) Advancement of technological level
- (f) Strengthening of institutional arrangements

(g) Development of infrastructure

VI. Machinery for implementation

VII. Suggested items for inclusion in the agenda of the World Symposium on Industrialization

VIII. Adoption of resolutions

IX. Adoption of the report of the Conference.

14. After adopting its agenda and electing its Chairman and three Vice-Chairmen, the Conference decided to take up, at its plenary sessions, agenda items IV, "Over-all evaluation of the progress and problems of industrialization in the ECAFE region", VII, "Suggested items for inclusion in the agenda of the World Symposium on Industrialization", and VIII, "Adoption of resolutions". Four Committees of the Whole were established for detailed study of the other items of the agenda. The *First Committee* was established to examine agenda items V(a) and (b) on "Ways and means for achieving, to the extent possible, harmonization of national development trends, relating particularly to industrial development", and on "Development of key industries in the ECAFE region"; the *Second Committee* to cover items V(c) and (d) on "Mobilization of financial resources" and on "Expansion of trade in manufactures and semi-manufactures"; the *Third Committee* to deal with agenda items V(e), (f) and (g) on "Advancement of technological level", on "Strengthening of institutional arrangements" and on "Development of infrastructure"; and the *Fourth Committee* to examine agenda item VI, namely, "Machinery for implementation".

15. The following delegates served as the Chairmen and Rapporteurs of these Committees:

First Committee

Chairman : H.E. Mr. Bibudhendra Misra (India)

Rapporteurs : Mr. B. J. Hill (Australia)
Mr. Inwari Raj Pandey (Nepal)

Second Committee

Chairman : Mr. G. L. Easterbrook-Smith (New Zealand)

Rapporteurs : Mr. A. H. Khan (Pakistan)
Mr. Ernest Wong (Singapore)

Third Committee

Chairman : Mr. F. E. Anderson (Australia)

Rapporteurs : Prof. H. K. Volbeda (Netherlands)
Dr. Urbane Zafra (Philippines)

Fourth Committee

Chairman : Mr. S. J. Walpita (Ceylon)

Rapporteurs : Mr. M. Kawada (Japan)
Dr. Mohammad Ali Jafari (Iran)

16. The Conference also established a Technical and Drafting Committee which elected His Excellency, Mr. M. Masood, Ambassador of Pakistan to the Republic of the Philippines and leader of the Pakistan Delegation as its Chairman. The Committee held three meetings and prepared a draft of the proceedings.

17. The proceedings of the Conference was unanimously adopted on 20 December 1965.

18. The Conference recorded its appreciation to the Government and the people of the Republic of the Philippines for inviting the meeting to be held at Manila; to the President of the Philippines for inaugurating the session; and to the ECAFE secretariat and the United Nations Centre for Industrial Development for organizing and servicing the Conference.

III. Basic issues and considerations

19. The Conference devoted itself at its first six plenary sessions held from 6-9 December 1965 to an over-all assessment of the progress and problems of industrialization in countries of the region. In drawing up its recommendations, the Conference had been guided by the basic issues and considerations emerging from this overall assessment.

20. For this over-all assessment, the Conference had before it the Report of the Preparatory Meeting of Senior Officials for the Asian Conference on Industrialization (E/CN.11/I&NR/Ind. Conf./L.15), Overall Evaluation of the Progress and Problems of Industrialization in the ECAFE Region (E/CN.11/I&NR/Ind. Conf./L.2) the country studies (see annex II — List of Documents) prepared by the Governments and a paper entitled "Industrial Development: Problems and Issue" (I&NR/Ind. Conf./1) presented by the United Nations Centre for Industrial Development.

The growing disparity

21. The Conference expressed its deep concern over the fact that, while the developing member countries of the ECAFE region contain almost one-third of the world population, their share of the world's industrial output is still, despite the strenuous efforts made, less than 2 per cent. The *per capita* industrial output of the developing ECAFE countries is also the lowest in the world, lower than the average for Latin America or the developing region of Africa. True, industrial output during recent years in developing ECAFE countries has grown at a relatively fast rate; but this rate of growth is based on a very low base. With the exception of a few advanced countries where the greater part of industrial activities in the region is concentrated, the industrial output of most developing ECAFE countries accounts for an insignificant portion of their respective national product. It is thus disturbing to see not only that the *per capita* income of the region is the

lowest in the world but that the disparity in *per capita* income between the industrially developed countries and the developing ECAFE countries has been growing at an alarming rate. This problem has been aggravated by a deterioration in recent years in the terms of trade between primary commodities and manufactures.

Co-ordination of industrial and agricultural development

22. It has been established that there is a close inter-relationship between industry and agriculture. Any significant expansion in the industrial sector has a beneficial impact upon the agricultural sector, enabling it to improve productivity and in turn, improvement in agriculture further stimulates industrialization. Thus, co-ordinated development of these two sectors cannot be overemphasized.

Employment need

23. Many developing countries of the region are confronted with a rapid demographic growth of explosive proportions. In most countries, the growth has become a formidable obstacle to the absorption of the growing labour force into the productive system of their economies. They are faced with the urgent problems of providing additional employment opportunities to absorb not only the backlog of unemployment but also the new entrants into the labour force. It has been estimated that the total labour force of Asian countries is likely to increase from slightly over 600 million persons in 1960 to nearly 936 million in 1980 — an addition of nearly 336 million persons to the labour force between 1960 and 1980. The economic implications of this rapid increase in the size of the labour force are that nearly 300 to 350 million new employment opportunities will have to be created to absorb the backlog of unemployed and under-employed.

Capital requirement

24. The rapid population growth has impeded capital formation in the developing countries. It has tended to divert a considerable proportion of the physical and financial resources of the countries from productive investment to consumption channels, with the result that the resource-base for future economic development is becoming narrower and narrower.

25. The raising of the level of investment in the industrial sector of the economy is one of the key factors in the creation of a sound basis for self-sustaining industrial growth. However, the rate of capital accumulation in most of the developing countries of the ECAFE region is still low both in absolute terms and in relation to the developed countries. Therefore, substantially higher rates of capital formation based on both internal and external sources will be needed to make a sizeable impact on the current and future growth of industrial output, employment, and national income.

26. Since industrialization constitutes an important and, in many cases, a crucial component of the economic development plans of the developing countries of the ECAFE region, provision of adequate financial resources for the industrial sector constitutes a problem of considerable magnitude. It has been estimated by the United Nations that the amount of capital required by the developing countries to raise their *per capita* national income by 2 per cent annually will be \$6.610 million for industrialization as well as \$1,056 million for agricultural development. Net domestic savings in the region were estimated at only \$790 million indicating a shortfall of \$6,876 million to be covered by external financing. The average annual net international flow of long-term capital and official donations amounted to \$216 million for 1951-1955, and \$612 million for 1956-1959. Though these are not recent figures, it is likely that the dimensions of the problem have not been altered. The problem of closing the gap between capital needs and resources is thus growing more serious.

27. On the basis of the target of 5 per cent annual growth rate set for the United Nations Development Decade and the current trends of exports and imports, the United Nations Secretariat estimated that the current account gap in the balance of payments of developing countries will increase from \$4.9 billion in 1960 to \$20 billion in 1970, of which the portion corresponding to the countries of Asia and the Far East was calculated to be \$6 billion, assuming that the 1960 price relation between export and import would hold good even during the 1960-1970 decade. However, if the decline in the terms of trade of the developing countries of Asia and the Far East continues throughout the 1960-1970 decade, as it did in the 1951-1962 period, then the initial current account gap will increase by about \$3.2 billion to \$9.2 billion. It must therefore be stressed that, while the solution of the problems of industrial expansion and further economic growth of the developing countries may be significantly helped by the flow of external assistance alone, much of the problem stems from the declining trend in the growth of export earnings from primary commodities, a crucial factor in the long-run problem of the balance of payments.

Skilled labour requirement

28. Despite the large surplus labour, a significant factor in the slow industrial growth of most countries of the ECAFE region is the lack of skilled manpower. This problem is encountered inevitably at the initial stage of industrialization and, also, at latter stages when the development programme is well under way. The availability of capital resources in itself is of limited value of the manpower for their proper organization and efficient utilization is not available in corresponding proportions. The shortage of skilled manpower and the creation of skilled personnel in the

required proportions for programmes of industrialization thus continue to constitute an urgent problem.

29. For the developing countries of the region, it has been estimated that the increase in skilled manpower during the next five years will have to be in the region of 385,000 engineers, 2.9 million technicians and 8.2 million craftsmen.

Market limitations

30. In addition to such limiting factors as the lack of skilled manpower, technical "know-how", and shortage of capital resources, there looms the basic one of the limited size of the domestic markets which inhibits dynamic growth in the industrial sector of the developing countries. This is particularly so in the case of the smaller countries of the region. Their markets are too small to attract investments in large scale industries or even to encourage a suitable division of labour. Furthermore, the adoption of development plans, policies and targets without due regard to those of neighbouring countries and others in the region has resulted in hampering the development programmes of all concerned.

31. The limitations set by markets and sales channels resulting from the prevailing economic conditions and development policies make it difficult to speed up the establishment and growth in the smaller countries on a national basis of such industries as iron and steel, non-ferrous metals, industrial machinery, electrical equipment, transport equipment, farm machinery and heavy chemical industries which are highly capital intensive and require large and expanding markets to obtain the desired economies of scale.

Co-operation for mutual benefits

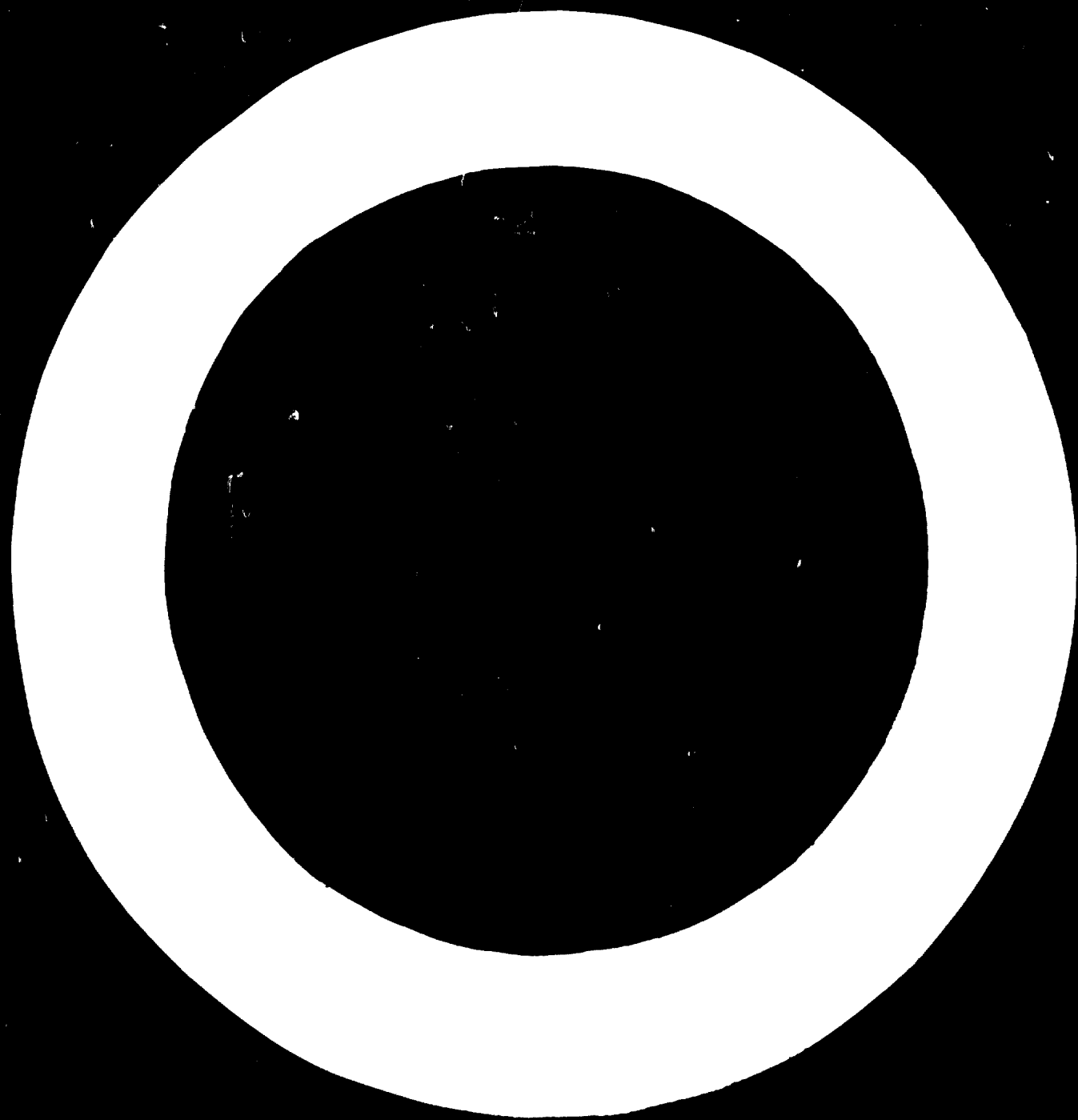
32. Because of the small size of their domestic markets, difficulty in gaining export outlets and other limitations, it will be difficult for most of the smaller countries of the region to achieve a breakthrough in economic growth by their own efforts alone. Effective planning and implementation of national development plans and programmes; sub-regional co-operation in harmonizing those national plans, programmes and projects, including the practical arrangement of suitable industrial joint-ventures on a bi-national or multi-national basis; and the assistance of the developed countries of the world, are necessary.

33. The benefits of the economic, financial and technical assistance given to the ECAFE region will accrue not only to the developing countries of the region but also to the developed and highly industrialized countries. A region of poverty, unemployment and sluggish economic and industrial growth is not an area of firm stability. The lack of stability is a deterrent to the realization of investment opportunities and economic expansion. It is therefore in the interest of the developed countries to assist in removing the limiting factors to industrial development in

the region. Further, though the internal markets in the developed countries have been expanding, they still need ever wider markets abroad. The potential of the ECAFE region with its huge population presents a vast market opportunity to the developed countries. Just a small percentage increase in income per head arising from expanding development in the ECAFE region would provide a substantial market for the capital goods and specialized consumer goods produced in the developed countries. Thus, external assistance by the developed countries properly employed by the developing countries of the ECAFE region will result in mutual benefit, increased international trade and the prosperity that is closely linked with economic and social stability.

Objectives and urgency

34. The important objective of raising the living standards of the ever-increasing population in the countries of Asia, so as to harness the vast human and natural resources of this region and thus abolish poverty, to eliminate the widening economic disparity between the developing and developed countries, and to increase the fuller utilization of man's accumulated scientific knowledge and acquired funds of technical skills — all this calls for co-operation at the national, sub-regional, regional and international levels. For only thus will it be possible to achieve the targets of the Development Decade and beyond, to which industrialization can make a significant contribution. As time is running out, the need for action is immediate.



SECOND PART: PROGRAMMES FOR ACTION

I. ACTION BY THE CONFERENCE ON THE FINDINGS AND RECOMMENDATIONS OF THE FIRST COMMITTEE

35. The First Committee was established by the Conference at its plenary session on 8 December 1965 and elected the following officers: H.E. Mr. Bibudhendra Misra (India) Chairman; Mr. B. J. Hill (Australia) and Mr. Inwari Raj Pondey (Nepal) Rapporteurs.

36. The following items of the agenda of the Conference were allocated to the First Committee:

- V(a) Ways and means for achieving, to the extent possible, harmonization of national development plans, relating particularly to industrial development.
- (b) Development of key industries in the ECAFE region.

37. The Committee had before it the following background documents dealing directly or indirectly with the subjects under discussion:

V(a) E/CN.11/I&NR/Ind.Conf./L.15: Report of the Preparatory Meeting of Senior Officials for the Asian Conference on Industrialization.

E/CN.11/I&NR/Ind.Conf./L.5: Promotion Programmes and Limiting Factors.

V(b) E/CN.11/I&NR/Ind.Conf./L.3: Development of Key Industries in the ECAFE Region.

I&NR/Ind.Conf./S.12: Iron and Steel Industries.

I&NR/Ind.Conf./S.5: Aluminum Industries.

I&NR/Ind.Conf./S.8: Engineering Industries.

I&NR/Ind.Conf./S.2: Chemical Industries.

I&NR/Ind.Conf./S.17: Pesticides.

I&NR/Ind.Conf./S.11: Oils and Fats.

I&NR/Ind.Conf./S.10: Rubber Industries.

I&NR/Ind.Conf./S.9: Silicate Industries.

I&NR/Ind.Conf./S.14: Forest Products Industries.

I&NR/Ind.Conf./S.15: Food Processing Industries.

I&NR/Ind.Conf./S.3: Pharmaceutical Industries.

I&NR/Ind.Conf./S.4: Textile Industries.

I&NR/Ind.Conf./S.1: Small-Scale Industries.

E/CN.11/I&NR/Ind.Conf./L.21: Promotion of Small Industries, by ILO.

E/CN.11/I&NR/Ind.Conf./L.22: Small Industries in the APO Member Countries, by APO.

I&NR/Ind.Conf./3: Utilizing Poorly Mechanized Forms of Manufacture in Economic Development.

38. The findings and recommendations of the Committee, as approved by the Conference at its plenary session, are set forth hereunder.

Agenda item V(a)

Ways and means for achieving, to the extent possible, harmonization of national development plans, relating particularly to industrial development

Nature of problem

39. The Conference noted that a series of factors, ranging from a lack of technical "know-how" and insufficient specialization to a shortage of financial resources, had prevented a dynamic growth of the industrial sector in most of the smaller countries of the region. All these factors, however, were to a great extent a manifestation of one of the main obstacles to industrial development which is the limited size of domestic markets. It was recognized that, given a sound development policy and intensified national effort, much could still be done to advance the industrial progress in many countries in spite of the smallness of their domestic markets. But, viewed in relation to long-term prospects, the Conference felt that in some cases these markets were too small to attract industrial investment in heavy industries.

40. Although, during recent years, promotion at the national level in several countries has produced some encouraging results, invariably, those new in-

Justries that have been comparatively successful have mainly been in the field of consumer goods, where the economies of scale are somewhat flexible. However, in other fields, the limitation and fragmentation of markets have already had some noticeably undesirable results. There are cases where the plant sizes based on the national market are uneconomic and will have to be protected indefinitely, either through a high tariff or import quota restrictions or through subsidies. In other cases, the plant sizes based on optimum economy of scale are too big for the home markets which results in low utilization of capacity and high production cost.

41. The adoption of independent national development policies may lead to unhealthy competition among neighbouring countries and thus hamper the development programmes of all concerned. The types of industry that are to be promoted or that have already been specified in industrial promotion acts or pioneer industries legislation are practically identical in many countries. However, in some cases, a new industrial plant is designed with a capacity in excess of the domestic market, in the hope that the surplus production can be exported to the neighbouring countries. Were this practice to continue indefinitely, the end result would be that the ability of some countries to run plants at a reasonable degree of capacity utilization would be reduced, and that there would be substantial idle capacity of some industries. Thus, the investments in one of every three or four plants may often be considered as wasted.

Prospects and consequences

42. The limitations set by markets and sales channels resulting from the prevailing economic conditions and development policies make it difficult to speed up at present the establishment and growth in the smaller countries on a national basis of such industries as iron and steel, non-ferrous metals, industrial machinery, electrical equipment, transport equipment, farm machinery and heavy chemical industries which are highly capital intensive and require large and expanding markets to obtain the designed economies of scale.

43. Without facilities for manufacturing some of the basic capital goods, most countries of the region would have to continue relying on advanced countries for their supplies. However, because of the unfavourable terms of trade governing the exchange of primary products for capital goods and of the limited foreign exchange saving of import-substitution consumer goods industries, the balance of payments difficulties of many countries would be likely to persist in the future.

44. Further, the prospects for intra-regional trade expansion would probably not be bright, as the developing countries in the region would be exporting more or less the same commodities. At the same time, the export of manufacture goods to countries outside the region even if not eventually impeded by restriction imposed by some countries would be handicapped by

the high cost of production because of the small size of industrial plants.

45. Thus, such a pattern of development would constitute a vicious circle. Most of the smaller countries of the region would find it extremely difficult, if not impossible, to achieve a break-through in sustained economic growth.

Form of co-operation

46. The Conference felt that apart from the requirement of intensified development effort by the countries themselves, one of the solutions to these basic problems lay in the achievement of further close economic co-operation among neighbouring countries in various fields including industry, mining, trade, agriculture, transport and communications as well as energy and resource development. Although trade constitutes the main channel of economic relations between countries, the existing pattern of production and trade in the region is such that a mere relaxation of trade barriers between the countries would not ensure the maximum potential increase in intra-regional commodity flow. In order to help achieve the principal goal of accelerated growth, co-operation among the developing countries of the region would have to be extended to the sphere of production and investment, especially in the industrial sector.

47. In the industrial field, special attention should be given to the possibility of setting up agreed industrial projects on a sub-regional or regional basis under market-sharing and joint-venture arrangements and to other joint efforts for the survey and development of resources. The Conference considered that such form of co-operation for the harmonization of national industrial development plans and with complementary arrangements was especially promising in a number of basic industries using regional raw materials. This would help to bring about more efficient use of scarce capital resources, rationalization of production among countries manufacturing broadly similar types of products and cheaper production of intermediate materials which could be used in other regional manufacturing development.

48. The Conference stressed that the most important consideration for a successful scheme of agreed specialization in industrial investment and production would be the principle of mutual benefit and equity. The Conference noted the statement by the New Zealand delegate on the background of the recently concluded Free Trade Area Agreement (NAFTA) between Australia and New Zealand and also the statements by the Iran and Pakistan delegates on the progress of the Regional Co-operation for Development among Iran, Pakistan and Turkey. These illustrated the feasibility of various forms of economic co-operation for harmonization of national development plans and programmes among countries.

49. The Conference felt that, in promoting sub-regional or regional co-operation in the development of industries and resources, the ECAFE secretariat

should intensify its activities and serve as the "catalyst agent" by focusing its attention on specific and promising projects and by bringing into notice of the countries concerned the advantages of various co-operative schemes. For these purposes, the Conference considered there was an urgent need for an impartial study to cover, among other things, the cost and benefit of possible "regional" or "sub-regional" industries, as the resulting facts and figures would enable countries to see clearly the respective economic advantages of any proposed regional or sub-regional arrangements. Often, the economic facts or incentives illustrated in these studies help to alleviate certain differences among countries, thus promoting a wider objective of international co-operation.

Measures and action

50. The Conference therefore recommended that the ECAFE secretariat undertake, with the assistance of the United Nations Development Programme and in close collaboration with the United Nations Centre for Industrial Development and other appropriate organizations and agencies, an intensified study and field investigation of the feasibility of various joint industrial schemes. Immediate priority should be given to six specific industries, namely, iron and steel, fertilizers, aluminum, pulp and paper, machinery and transport equipment, and petrochemicals. The investigation of these industries should cover raw material supplies, number and size of plants, location, costs, and channels of distribution as well as the related trade aspects of these industrial products, including tariff regimes and the possible need for long-time agreements among the co-operating countries.

51. The Conference also suggested that these studies should be completed as soon as possible, since several countries of the region would be embarking shortly on the formulation of their next national development plans. The information to be provided from these studies would help to focus attention on the specific areas where co-operation between some of these countries could be fruitful through harmonization of their national development programmes. Also, since undertaking the studies and investigations in depth would require the active participation of senior officials and experts concerned with economic and industrial development in all countries of the region, the Governments should endeavour to make available their officials and experts to assist the secretariat in preparing these studies. In this connexion, the Conference noted with appreciation the expression of co-operation of the Australia, Japan and New Zealand delegations in providing experts and other facilities, where appropriate, to assist the ECAFE secretariat in the feasibility studies and field investigations.

52. Finally, the Conference recommended that, in accordance with the recommendations adopted in respect of Section IV entitled "Machinery for Imple-

mentation", appropriate institutional arrangements should be made to follow up these recommendations.

Agenda item V(b)

Development of key industries in the ECAFE region

53. The Conference expressed its appreciation of the comprehensive sectoral studies of the 12 key industries of major importance to countries of the region prepared by the Expert Working Groups and the recommendations made by the Preparatory Meeting of Senior Officials for the development of these industries at the national, sub-regional or regional levels. These recommendations, which reflect the special development problems and needs of these industries in the region, may be broadly grouped into the following six major categories:

- (1) Recommendations in regard to planning and programming and for the establishment of specific industries by individual countries;
- (2) Recommendations for the development of link and auxiliary industries;
- (3) Recommendations for the development of infrastructure and skilled manpower necessary for the promotion of these industries;
- (4) Recommendations of technical nature, such as the appropriate economies of scale, arrangements for technical "know-how", selection of manufacturing processes and equipment, standardization and research;
- (5) Recommendations for sub-regional and regional co-operation; and
- (6) Recommendations for action by the United Nations, ECAFE and other international bodies.

54. The Conference considered that the development policy and measures, as well as the economic and technical data on various key industries, indicated in the reports of the Expert Working Groups could be valuable guides for the planning and establishment of these industries in the countries of the region. It therefore commended all the reports to the government development agencies and industries in countries of the region for careful study and consideration. The Conference also considered that, with further detailed investigations at the national and regional levels, the establishment of key industries, such as iron and steel, fertilizers, aluminum, pulp and paper, machinery and transport equipment and petrochemicals, at suitable locations and on a proper scale of operation would help to broaden the industrial base and accelerate the industrial growth in ECAFE countries.

55. In order to insure early establishment of these industries on sound lines, the Conference recommended that the Governments concerned bear the following in mind in the selection and promotion of various projects:

- (a) *Selection criteria and development priority*
The selection of these industries for

development and the allocation of priority for each project should take into account, among other things, the related natural resources endowment and long-term cost advantages. Each industry so selected should form an integrated part of the national development plan. For most developing countries of the region, industries utilizing local raw materials and contributing to the increase of agricultural productivity deserve high priority consideration.

(b) *Pre-investment investigation*

The preparation of detailed feasibility studies at the project level, whether national or regional, necessarily involves elements of estimation, projection and judgment. They therefore require successive revision in the light of changing conditions. A large number of feasibility studies should be prepared so as to afford greater opportunities to attract investment and provide a basis for priority determination and the establishment of plans of industrial development.

(c) *Promotion and implementation*

The early implementation of promising projects for which feasibility studies have been made requires, apart from a sound economic development policy, an effective organization to promote these projects. This will involve close co-operation among all the parties actually or potentially concerned, both within and outside the country. In addition, such an organization should be able to follow up the implementation of the projects and to respond promptly to any justified request for assistance required by the manufacturers especially in the early stage in the planning and establishment of the projects.

56. The Conference further recommended that, at the regional or international level, there should be a continuing programme to provide surveys of particular branches of industry. Such surveys should include also essential and up-to-date information on a world-wide basis on the economic and technological considerations affecting the development of the industry. In this connexion, the Conference suggested that the ECAFE and the United Nations Centre for Industrial Development should continue to collaborate closely in the preparation of periodic surveys of industrial branches.

57. The detailed observations and recommendations of the Conference on the development of specific key industries are outlined below.

(a) *Iron and steel industry*

58. The Conference commended the Expert Working Group's report on the iron and steel in-

dustry. It noted that some progress had been made in this industry in the region but that progress in the lesser developed countries was slow. Its impact has not been significant in relation to the general economic welfare of the large masses of the population. The increase in iron and steel production in the region was preponderantly contributed by Japan. India and Australia are the two other member countries which have considerably increased their iron and steel production during the last decade. These three countries contributed about 8 per cent, 1.2 per cent and 1.5 per cent respectively of the total world steel production in 1963. However, the smaller producer ECAFE countries all together produced only about 500,000 tons of steel in 1963, which represented less than 1 per cent of the total world production. The region as a whole contributed about 6 per cent of the total world production in 1955 and about 14 per cent in 1963. The consumption of steel in the region is, but for Africa's, the lowest in the world today, being of the order of only 29 kgs *per capita* per annum, compared with the world average of 115 kgs.

59. The Conference took note of the recommendations of the Expert Working Group that, based on a *per capita* consumption of 20 kgs and an annual population growth rate of 3 per cent, steel production in the small producer countries of the region could be increased to 4.35 million tons by 1970 as against an estimated consumption of about 9.35 million tons per year by 1970. The attainment of this production target would represent an average annual growth rate of 7.6 per cent of *per capita* steel consumption during the period 1963-1970. Between 1970 and 1985, the steel production capacity of these small producer countries should be substantially expanded, as their steel consumption is expected to reach 42.6 million by 1985.

60. The Conference considered that the iron and steel industry was the foundation of all industrial development. In spite of recent advances in iron and steel technology, there are many problems and difficulties to be solved before iron and steel production can be established in some of the ECAFE countries. These problems include the high capital cost of investment, inadequacy of foreign exchange, trained personnel, transport, power, market size, and the slow pace in the development of steel consuming industries. In some of these countries, the shortage of foreign exchange for the purchase of machinery and equipment has been perhaps the most serious impediment.

61. The Conference agreed that a realistic approach to tackling problems hindering the growth of the steel industry of the smaller countries of the region lay in pooling resources, capital, raw materials and markets, thereby promoting both inter- and intra-regional co-operation. In this regard there appear to be opportunities for the establishment of several large plants of economic size in the various countries and

sub-regions, which would accelerate industrialization in the region as a whole and make a favourable impact on the living standards of the people in these areas.

62. In view of the above considerations, the Conference recommended:

- (a) That ECAFE organize a team of experts as an Iron and Steel Panel with assistance from all appropriate quarters, including international agencies and advanced countries, within and outside the region, to undertake the following as an action programme to achieve a break-through in the development of the iron and steel industry in the region:
- (i) Identify the possibilities of starting or expanding production of iron and steel in the countries of the region on a national, sub-regional, intra-regional and/or international joint venture basis;
 - (ii) Prepare, in respect of the possibilities identified in (i) above, pre-investment reports on the basis of which further detailed project reports may be undertaken and investment decisions taken by the potential investors concerned; and
 - (iii) Consider the necessity of establishing research laboratories of appropriate sizes for testing of local materials by various processes.
- (b) That the combined steel production target capacity of the small producer and non-producer countries of the region be increased in two stages, first to 4.35 million tons by 1970 and next to 42.6 million tons by 1985, with a view to meeting their projected steel consumption by a realistic annual *per capita* growth rate of 7.6 per cent.
- (c) That the World Bank and the proposed Asian Development Bank and other financial institutions should accord high priority to requests for financing the execution of this development programme.
- (d) That a group visit be organized with the assistance of the United Nations Development Programme and industrially more developed countries to study, among other matters:
- (i) The various non-traditional processes or iron making with the object of making iron principally with non-metallurgical fuels;
 - (ii) The agglomeration techniques for the utilization of fine grained ores; and
 - (iii) The recent techniques for continuous casting of steel (which have eliminated several steps in shaping of steel,

and have contributed in many cases to lowering production costs).

- (e) That the secretariat arrange for a wide and continuing dissemination of information to the ECAFE countries on the advances in modern iron and steel technology.
- (f) That the various ECAFE governments cooperate with the secretariat and the proposed Iron and Steel Panel in executing the programme for establishing iron and steel industry in the region.

63. In this connexion the Conference noted with appreciation that the Government of Australia is prepared to consider acting as host country for the next session of the Sub-Committee on Metals and Engineering.

(b) Aluminium industries

64. The Conference commended the report of the Expert Working Group on the Development of the Aluminium Industries in the ECAFE Region (I&NR/ Ind.Conf./S.5) which gave an over-all review of the development of the industry and described the characteristics of the four stages of the industry, namely alumina extraction, aluminium reduction, primary fabrication (rolling, extrusion, etc.) and secondary fabrication (manufacture of consumer products). The report analyzed the supply and demand situation of aluminium and made projections up to 1970. It also discussed the reserves of bauxite in the world and in the ECAFE region, aluminium production processes, and the cost structure of the aluminium industry.

65. The Conference was aware that aluminium, because of its unique physical properties and versatility, had found varied applications in many fields. World production and consumption had increased rapidly in recent years, faster than any other metal. In the ECAFE region, the production of primary aluminium increased by 27 per cent from 332 thousand tons in 1963 to 420 thousand tons in 1964.

66. There are four member countries in the ECAFE region which produce and fabricate aluminium, namely Australia, China (Taiwan), India and Japan. China (Taiwan) and Japan import their bauxite and/or alumina, largely from Indonesia, Malaysia, Australia and India. The other member countries or territories having rolling and/or extrusion plants are Burma, Malaysia, Hong Kong, Iran, the Republic of Korea, New Zealand, the Philippines, Thailand, the Republic of Viet-Nam and Singapore. The report of the Expert Working Group revealed that aluminium production in the region would lag behind consumption by at least 30,000 tons in 1970. There was a net inflow of about 64,000 tons of primary aluminium into the region in 1963. Japan, a net exporter in 1963, was a net importer of aluminium and aluminium alloy ingots in 1964, while Australia and China (Taiwan) were net exporters in

1963. India, though itself producing aluminum, had been importing primary aluminum and, during the period 1960-1963, the import had amounted to about 25,000 tons annually. The Conference therefore felt that there was scope for increasing the production of aluminum in the region. It noted that, apart from the existing and already planned facilities, additional capacities of 50,000 to 100,000 tons of aluminum would be required by 1970.

67. The Conference was informed that the Hall-Heroult method, incorporating the latest improvements, would be the main method used for aluminum smelting in the foreseeable future. The availability of cheap electricity would always be the important factor in determining the location of smelters. For long-term planning, consideration might also have to be given to the projected future cost of nuclear power.

68. The Conference noted that the Expert Working Group had considered the feasibilities of establishing aluminum reduction facilities in Brunei and Iran, using electric power from natural gas. The Lower Mekong Basin and the Philippines (at Iligan), had also been considered as sites for aluminum smelters on the basis of the substantial hydro-power potential existing in these areas. In this connexion, the Brunei delegation pointed out the availability of a relatively abundant supply of natural gas in Brunei as a source of comparatively cheap fuel and power for the conversion of bauxite into alumina and the further processing into aluminum ingots, plus a deep sea-port in Brunei in a good geographical position in South-east Asia which might provide an advantageous basis for the establishment of a joint venture aluminum project involving several countries in South-east Asia and other countries of the region. It was therefore suggested that the ECAFE secretariat should promote, facilitate and undertake a feasibility study of the proposal. The Iranian delegation pointed out the low cost of power which could be generated from natural gas in Iran and the possibility of establishing an aluminum industry in Iran, to cater for the needs of neighbouring countries, in co-operation with India as well as Pakistan and Turkey, within the framework of the agreed Regional Co-operation for Development among the three countries.

69. In any of the sites considered, the Expert Working Group's report pointed out that the smelters to be set up should have a minimum initial capacity of 30,000 to 35,000 tons of aluminum per year, for which alumina should be imported; an alumina plant should be established (with a minimum annual capacity of 200,000 tons of alumina) only after the smelting capacity had expanded to 100,000 tons of aluminum per year; at which time bauxite might be imported instead of alumina. Other factors affecting the choice of importing bauxite or alumina are the cost of transporting bauxite and the amount of foreign exchange required for importing alumina.

70. In view of the very large capital requirement for establishing alumina and aluminum plants, the smallness of the domestic markets of many countries in the region in relation to the minimum economic size of plants, the uneven distribution of raw materials and power resources and other factors, regional co-operation and joint ventures are desirable to further the development of the aluminum industry in the region. It would be advisable to obtain the co-operation of the aluminum-producing countries of the region and also of manufactures in advanced countries which could make available their marketing facilities, financial support and technical assistance.

71. The Conference felt that the feasibility studies of the various possible projects in the region should be undertaken as early as possible to meet the expected substantial increase in the demand for aluminum. For countries which do not yet possess any aluminum industry, secondary fabricating plants should be established as a first step, as such plants, since they require less capital and utilize more labour, are technically simpler and the products are more easily absorbed by the domestic markets. As soon as the domestic market for semi-manufactures is sufficiently large, primary fabricating facilities may also be set up. These require larger economic capacity, greater capital investment and higher technical skill. In view of the larger economic capacity in relation to the domestic market of a single country, a number of countries might agree to have different primary fabrication plants producing different products which could then be traded among themselves. Aluminum could give specially reasonable prices to primary fabricators in order to encourage the fabrication of finished aluminum products in the less developed countries of the region.

72. The Conference noted that, in the ECAFE region, bauxite have so far been found in large quantities only in Australia and India, and lesser amounts in Indonesia and Malaysia. Commercial quantities have not so far been found in the other member countries of the region.

73. Taking all the above into consideration, the Conference recommended:

- (a) *Raw material supplies.* That member countries of the region intensify the survey for new deposits of bauxite as well as high alumina clays and raw materials such as fluorspar, rock salt and electrode materials.
- (b) *Alumina and aluminum plants.* That countries which possess the potential for producing cheap electricity, such as Brunei and Iran where it could be based on natural gas and countries in the Lower Mekong Basin and the Philippines where it could be based on hydroelectric power, consider the feasibility of establishing alumina plants and/or aluminum smelters in their territories.

(c) Fabrication plants

- (i) That countries which do not have an aluminum industry, but consume sufficient finished products of aluminum, consider establishing *secondary fabricating plants* to produce consumers products, as such plants require less capital, utilize more labour and are technically simpler.
- (ii) That countries with a sufficient demand for finished products consider establishing *primary fabrication plants*, such as rolling mills, extrusion presses and plants for alloy forgings and castings.

(d) Regional and international co-operation

74. With regard to the recommendations (i), (ii), (iii) and (iv) under this heading, the Conference recognized that, because of the way in which the aluminium industry is organized on an international basis, it would be necessary to take into account the need to obtain the close co-operation of the large international producers in encouraging regional co-operation and joint ventures.

- (i) That countries of the region should co-operate in the development of their aluminum industries so as to take advantage of shared capital investment, domestic markets, pooling of raw materials and power resources as a means of remedying their uneven distribution, specializing in the primary and secondary fabrication and achieving economies of scale. In doing this, they may have to establish close liaison with international aluminum producers.
- (ii) That countries of the region consider rationalizing their trade not only in raw materials for aluminum production, but also in the semi-finished aluminum products.
- (iii) That the aluminum-producing countries of the region be requested to make available the technical assistance that may be required by the developing countries which desire to establish or expand their aluminum industries.
- (iv) That, in line with the developments in other parts of the world, the aluminum industries of the mentioned countries take initiative for the formation of an Aluminum Council or Institute for the ECAFE region to undertake the exchange of information on aluminum and product development, and training of technical personnel of less-developed countries of the region.
- (v) That ECAFE assist, in whatever manner appropriate, in the formation of the above Council or Institute.
- (vi) That the ECAFE secretariat promote the implementation of new aluminum projects and, for this purpose, assist in securing the

financial support of the Asian Development Bank and other financing institutions.

(c) Engineering industries

75. The Conference commended the Export Working Group's report on engineering industries. It noted that, with few exceptions, the production of engineering goods in the countries of the region is very low. Most of the engineering goods produced in the countries of the region, with the exception of Japan, India and Australia, are meant primarily to meet domestic demands. There is an increasing magnitude of trade among the highly developed countries and a continued increase of imports by the less developed areas. There has been, however, a very insignificant complementary export trade in engineering products to the highly developed areas.

76. The Conference considered that engineering industry is basic to the industrial aspirations of the countries of the region and must be expanded quickly. Without suitable engineering industries, most countries of the region will have to continue to rely on imports for the supply of capital goods. Balance of payments difficulties, however, come in the way of such imports.

77. It was also considered that many branches of engineering industry, especially industrial machinery, heavy electrical equipment and appliances, transport equipment, and farm and construction machinery, are characterized by their high degree of capital intensity and by their reliance on an expanding market to obtain the desired economies of scale. These branches are eminently suitable for the formulation of regional or sub-regional co-operation schemes.

78. The Conference observed that speedy development of engineering industries would require close international co-operation. Forms of such co-operation include financial equity participation, licensing agreements, technical assistance and consultant services. Also, the modernization and expansion of some of the basic engineering servicing industries, such as tool and die-making, heat treatment, electroplating and instrumentation, would go a long way in speeding up the development of the engineering industries and in improving the quality of the products.

79. In view of the above considerations, the Conference recommended:

(a) That developing countries should:

- (i) Accord high priority to the engineering industry including the basic servicing industries such as foundries, tool and die-making, heat treatment, electroplating and welding;
- (ii) Improve inspection and testing facilities;
- (iii) Expand technical education and vocational training as well as apprenticeship training schemes in metals and engineering industries by government and/or by private enterprises;

- (iv) Encourage the development of industries such as motor vehicles, electric appliances, farm machinery and diesel engines, starting with assembly and leading towards progressive manufacture; and
 - (v) Provide appropriate fiscal and tax incentives for their development.
- (b) That developed countries should, by providing appropriate incentives encourage their manufacturers to establish manufacturing plants or assembly plants in developing countries; and take such measures as may be appropriate to encourage and assist the export of manufactures from the developing countries.

80. The Conference further made the following recommendations regarding regional and international co-operation:

- (a) That the ECAFE secretariat organize an Engineer's Panel including experts from developed countries, with assistance from all appropriate quarters including international agencies and advanced countries within and outside the region. Some of the functions of this Panel would be as follows:
- (i) To advise on the manufacture of simple items for a start and on the establishment of various engineering assembly industries;
 - (ii) To carry out as a matter of urgency surveys of the countries in the region with a view to suggesting the further types of industry which could be set up with advantage;
 - (iii) To suggest better layouts, techniques of production, substitution of scarce raw materials, better and proper utilization of machinery by the use of improved tooling, jigs and fixtures, etc.;
 - (iv) To arrange research on technical production problems; and
 - (v) To suggest development of ancillary industries.
- (b) That after proper investigations with the assistance of appropriate agencies the ECAFE secretariat and/or such other organizations as may be established promote the establishment, on a joint-venture basis, of some of the following projects:
- (i) A plant for the manufacture of agricultural implements such as garden tools, cultivators, sprayers, threshers, harvesters, harrows and diesel engines, etc.
 - (ii) Plants for the manufacture of pumps for irrigation and industrial purposes.

(iii) Plants for the manufacture of road rollers.

(iv) Small shipyards for dry docking, repair and construction of coastal vessels, including fishing and tug boats, barges, etc.

(c) That prototype production and training centres and metal development centres with a metallurgical laboratory attached to each be established wherever suitable with the assistance of the United Nations agencies and/or expansion of existing facilities in the region for the training of personnel.

(d) That exhibitions, such as machine tool exhibitions, be organized in the ECAFE region in collaboration with foreign machinery manufacturers.

(d) Chemical industries

81. The Conference commended the report of the Expert Working Group on Chemical Industries (I&NR/Ind.Conf./S.2) which examined the general characteristics, problems and measures for the development of chemical industries including basic chemicals, fertilizers and petrochemicals, and also outlined the particular aspects of development relative to each section of this industry.

82. The Conference agreed that the chemical industries, especially fertilizer industries, are important to the economic development of the countries of the region. It felt that, in planning for the development of chemical industries, studies had to be made in regard to the demand for chemical products by the agricultural sector, by direct consumers, by consumer industries and by the chemical industry itself; and tables prepared on capital-output ratios or investment per unit of output, capital-employment ratios value added-employment ratio and other economic indices. Because of the inter-dependence of various branches of chemical industries, input-output tables are important for obtaining realistic demand projections for chemical products.

83. The Conference noted that, in order to provide a favourable climate for the self-sustaining growth of new chemical industries, developing countries of the region had to resort to certain imports protection measures at least in the initial stage. Delay in taking the required steps had often caused serious harm to local industry and appropriate protection measures for the local new industries appeared to be necessary from the commencement of their production or even before that time if stockpiling of imported products were likely to occur.

84. The Conference noted that, for many chemical products, the cost of raw materials and utilities represents between 60 and 80 per cent of the total production cost. The generation of cheap power is a key factor in the development of many branches of chemical industry.

85. In regard to raw material supplies, the Conference noted that the region seriously lacks sulphur, rock phosphate and potash resources essential for the development of the fertilizer industry. World demand for sulphur is growing at a faster rate than production and its prices have been on the increase. Although there has been no difficulty in obtaining supplies of rock phosphate from North Africa or the North America, their prices have also shown a tendency to rise. Almost all the requirements for potash in the region are met by imports.

86. The Conference was informed that, in Iran, the National Iranian Petrochemical Company has taken steps to produce sulphur from two main sources of natural gas in Iran, which are capable of producing 1,450 tons per day.

87. Salt is an important raw material for basic chemicals such as caustic soda and soda ash. In this regard, the Conference was gratified to note that there are large reserves of rock salt in some countries of the region (e.g., Australia, Pakistan and Thailand).

88. It was pointed out that chemical industry is one in which the technology involved is changing most rapidly. It follows that more attention should be given to research and development in countries of the region. Governments in the region can create the necessary incentives for research in several ways, such as by: (a) the establishment of various kinds of national research institutes or foundations to help small manufacturers; (b) provision of financial assistance to encourage research and development; (c) the establishment of a patent system to protect inventors and thus encourage research by the profits of such inventions; and (d) strengthening education in science and technology at all levels.

89. The Conference noted that the chemical industry is characterized by high capital intensity with high foreign exchange content. As most of the countries of the region are short of foreign exchange, the necessity of manufacturing plant and equipment for the chemical industry is apparent.

90. Owing to the large-scale production of basic chemicals in the industrially advanced countries, it would appear at first sight that the scope for developing these industries in the region is somewhat limited. The Expert Working Group, however, stressed the nature of inter-dependence of various branches of chemical industries. Thus, although the cost of production of certain basic chemicals such as sulphuric acid and caustic soda may be high in some cases on account of the small size of the plants, local production stimulates the growth of related industries, thereby assisting in broadening the industrial base in the developing countries.

91. Taking into consideration also other suggestions made by the Expert Working Group, the Conference recommended:

(a) *Raw material supplies*

- (i) That countries of the region consider

a possible agreement with the Iranian Petrochemical Company either as partners for the manufacture of sulphur from Iranian natural gas or for the long-term supply of sulphur;

- (ii) That consideration be given to the possible establishment of a plant for the production of muriate of potash from the reported reserves of potash in West Pakistan.
- (iii) That the possibility of producing by-products from the salt industry in the region, such as magnesium salts, gypsum, potassium chloride and bromine be fully explored.
- (iv) That the large reserves of rock deposits in some countries of the region (e.g. Australia, Pakistan and Thailand) be fully exploited.
- (v) That the quality of the salt produced in some countries of the region and the method of handling and transportation be improved.

(b) *Basic chemicals*

- (i) That production of sulphuric acid and caustic soda in countries of the region be encouraged although the costs are likely to be higher than world prices.
- (ii) That special tariff rates for electricity be arranged for industries where the cost of electricity in the electrochemical processes represents more than 10 per cent of the total cost of production.
- (iii) That dual process plants for the production of soda ash be established in countries of the region where a demand exists for ammonium chloride.

(c) *Fertilizers*

- (i) That agricultural extension services be intensified to promote the use of fertilizers and pesticides, for which purpose countries may wish to seek the assistance of FAO and other appropriate United Nations agencies.
- (ii) That special attention be directed to improving the marketing and distribution services through co-operatives or by other means.

(d) *Petrochemicals*

That, in planning the petrochemical industries, the establishment of complexes rather than a series of small scattered units be given preference and that, where necessary, adequate tariff protection be provided for such complexes.

(e) *National planning of chemical industry*

That, in the planning of chemical industry in countries of the region, "norms" be taken

into consideration and be made available to them by those countries where such information exists; and that, to this end, the ECAFE secretariat collect, compile and circulate these "norms" to member countries.

- (f) *Government incentives to chemical industry*
That, in view of the importance of the chemical industry to countries of the region, special taxation and other incentives be accorded to the industry, such as:

- (i) Tax relief on expenditure incurred in research and development,
- (ii) increased taxation allowance for plant depreciation,
- (iii) investment risk allowances
- (iv) reduced taxation on fixed assets where these are represented by pilot plants, and
- (v) reduction of taxation in royalty payments.

- (g) *Technical training*

That in-plant technical training be offered by member countries within and outside the region in cases where they have developed specialized fields within the chemical industry. For this, scholarship grants by appropriate United Nations agencies would be necessary. Later, it could lead to the establishment of central training institutes in appropriate countries in the region.

- (h) *Research and development*

That the Governments in the region assist and create the necessary incentives for research and product development.

- (i) *Regional and international co-operation*

That, besides sulphur projects, encouragement be given to the establishment of a joint venture between countries of the region and Iran for the manufacture of more ammonia from associated gas for sale in the ECAFE region. Similarly, a joint venture for the manufacture of caprolactan should be investigated and encouraged.

- (j) *General*

That, as recommended by various ECAFE meetings, the establishment of a full-scale Chemical Industry Section in the ECAFE secretariat be implemented immediately.

(e) *Pesticide industries*

92. The Conference expressed its appreciation of the report on the pesticide industries in the ECAFE region (I&NR/Ind.Conf./S.17) prepared by the secretariat. The report examined the development of pesticides and progress of the industry in advanced countries, the demands for pesticides in the ECAFE region and the infrastructure development required for the application of pesticides. It also

outlined the present status and problems of the pesticides industry in the ECAFE region and the scope for regional and sub-regional co-operation in the development of this industry.

93. The Conference noted that there are two distinct operations in the manufacture of pesticides, one dealing with the manufacture of pesticidal chemicals and the other their conversion into formulated materials. In the advanced countries pesticidal chemicals are usually produced by big chemical concerns whereas formulation of the material is undertaken both by chemical concerns which make the pesticidal chemicals and also by smaller concerns which mainly specialize in formulations. In the ECAFE region, the production of some simpler types of pesticide such as BHC and DDT is being undertaken in some countries. As these activities could be developed as adjuncts to the developing chemical industry, their expansion will also help in the utilization of by-products such as chlorine. In addition, certain limited facilities for formulating insecticides exist in countries of the region using both locally produced and imported pesticides.

94. The Conference noted that very little has been done in most countries of the region by way of chemical control of crops to help in the immediate increase of food production. There is a lack of technical and advisory services and training institutes for plant protection work in most of the countries of the region to provide the necessary expert advice for identifying the problems and suggesting remedial measures. Also lacking are training facilities for the personnel at different levels required for chemical control; adequate scientific survey and warning systems to enable farmers to take timely action against epidemics of plant diseases and pests; adequate legislative measures to prevent the misuse of the toxic pesticidal chemicals, to ensure their proper packing, transport and distribution; organizations to advise and train farmers in the care required in handling these chemicals so as to derive maximum benefits for them. In addition, there is an insufficiency of application equipment for pesticides such as manually and power operated sprayers, seed dressing equipment and fixed wing aircraft and helicopters.

95. Taking all the above into consideration, the Conference recommended:

(a) *Utilization and distribution*

- (i) That, for augmenting food production quickly, the countries of the region attach adequate importance to the chemical control of crops, stored grains and other produce.
- (ii) That technical and advisory services and training institutes for plant protection work be set up.
- (iii) That provision be made for training farmers in handling and proper use of these toxic chemicals.

- (iv) That legislative measures be undertaken to control their proper packing, transport and distribution.
 - (v) That scientific survey and warning systems be established in different centres to enable farmers to take timely action against epidemics of plant diseases and pests.
 - (vi) That adequate application equipment be made available; this should include manually and power operated sprayers, fixed wing aircraft and helicopters, and seed dressing equipment.
- (b) *Development of pesticides industry*
- (i) That the development of the pesticide industry should start with formulating plants, progressively moving towards the manufacture of less sophisticated varieties, and that the production of more essential pesticides be undertaken as joint ventures which could meet the requirements of groups of contiguous countries to achieve minimum economic size of plant.
 - (ii) That continuous research on development of new pesticides be undertaken to counteract the immunity problem.
- (c) *Regional and international co-operation*
- (i) That technical and advisory services and training institutes for plant protection work be set up jointly by a group of countries with contiguous areas.
 - (ii) That scientific survey and warning systems be established jointly by adjacent countries at suitable centres to enable farmers to take timely action against impending epidemics.
 - (iii) That the ECAFE secretariat, in consultation with FAO and the countries concerned, undertake a comprehensive survey of the production of the more essential pesticides in the developing countries of the region. The survey should examine the possibility of joint projects to meet the requirements of groups of countries to achieve economies of scale. This should be done by pooling the raw materials and other resources of the countries, and establishing common distribution facilities. All the United Nations agencies concerned should accord high priority to such feasibility surveys.
- (f) *Oils and fats industries*

96. The Conference expressed its appreciation of the report on Oils and Fats Industries prepared

by the Working Group of Experts. The study reviewed raw materials, supplies, manufacturing processes and production costs and examined various development problems and strategies.

97. The Conference noted that the ECAFE region is a major oilseed, oil palm and oil producing area and, also, a major oil consuming region due to its large population. However, the *per capita* consumption of oils is only 8 to 10 lbs per annum compared with 50 to 60 lbs per annum in developed countries. The world's total production of oils and fats was 33 million tons in 1963, with 25.6 million tons being produced in countries outside the centrally planned economies. The production of oils and fats in the world excluding the centrally planned economies has increased at a rate of 2.7 per cent per annum since 1950. The world production of vegetable oils in 1963 was 19.17 million tons. The ECAFE region's total production of oils and fats in 1963 was 6.7 million tons, while that of vegetable oils alone was 6.2 million tons. The projected world output of oils and fats for 1970 is 30.3 million tons (excluding the centrally planned economies). The ECAFE region's production is expected to be 7.6 million tons by that year.

98. The total production of oilseeds in the world in 1963 was 84.4 million tons, the ECAFE region contributing 15.6 million tons, or about 18 per cent. The ECAFE region produces almost all the major varieties of oilseed and oil-bearing nut except olives. In fact, the region has the highest production in the world of groundnuts, copra, rapeseed and sesame seed.

99. About 80 per cent of the world's exports of copra are provided by the ECAFE region, the contributing countries being the Philippines, Indonesia, Malaysia and Ceylon. Indonesia exports its entire production of palm kernel and Malaysia exports about 58 per cent of its production. India, the largest producer of seeds, banned exports of oilseeds after the Second World War.

100. The Conference also noted that oil milling industry exists in such seed-producing and palm-producing countries as Burma, Ceylon, China (Taiwan), India, Iran, Japan, Malaysia, Pakistan, the Philippines and Thailand. However, the size and pattern of the industry vary from one country to another. It is one of the oldest industries in the world, its technology having slowly undergone many changes. During the last twenty years, there have been two revolutions in the industry, namely, the introduction of solvent extraction and the advancement of mechanical expression of oilseeds. As the region is the biggest rice-producing region, contributing about 50 per cent of the world's rice production, the rice and oil industry should be considered as one of the most important industries of the region. The development of this industry has an annual oil potential of about 1.1 million tons of good edible oil valued at \$325

million. This would increase the oil resources of the region by 16 per cent without any pressure on existing cultivated land. Japan is a pioneer in the production of rice bran oil while in Burma, China (Taiwan), India and Thailand the industry is being developed.

101. Oils and fats find various uses in industry, mainly in the food and soap-making industries, and also in the manufacture of paint, varnishes, lubricants, plastics and other industrial products. Oil cake and meal, the by-products of the oil-seeds crushing industry play a significant role in the economics of the industry. They are a major source of protein for animal feed. The ECAFE region produced 5.8 million tons of oil cake in 1963, representing 21 per cent of world production.

102. In examining the development problems of these industries, the Conference took note especially of the following observations of the Expert Working Group:

- (a) In regard to raw material supplies, yields per acre of oil seeds in many developing countries of the region are very low; coconuts are generally cultivated as a small-holders' crop and, in many areas, large numbers of trees are nearing the end of their economic lives. Small-holders are reluctant to replant without incentives. Also, the utilization of minor oil seeds for milling industry is faced with problems of high cost of collection and transport.
- (b) In respect of oil milling facilities, almost all developing countries in the region have an excessive number of small crushing mills, which have neither optimum crushing capacity nor the adaptability to permit them to process different qualities of seeds. This leads to a large idle capacity and considerable waste of investment. Further, most oil milling plants in the region are operated under the traditional management outlook, without realizing the economic advantages of modern equipment and techniques such as solvent extraction, new methods of oil refining, utilization of by-products by distillation, esterification, etc. In many countries, there exists strong prejudice against solvent extraction processes, in spite of the fact that the process involves much less risk of deterioration of raw materials and gives a much higher efficiency of oil recovery.
- (c) Countries which would like to replace exports to developed countries of raw materials, such as copra, castor seeds and other oil seeds, by manufactured or at least semi-manufactured products encounter not only trade barriers but also discriminatory shipping rates. As of today, in almost all developed countries there is no import duty

on oil seeds. But, even on crude oil, there is an import duty ranging from 10 to 15 per cent.

103. Having regard to these development problems, the Conference recommended:

- (a) *Raw materials supplies*
 - (i) That producing countries in the region consolidate as far as possible small-holders' cultivation with a view to facilitating the introduction of modern production techniques. In cases where such consolidation is not possible, the Governments should provide the necessary technical assistance and appropriate incentives for increasing the production yields of oil seeds and oil palms.
 - (ii) That FAO, in close collaboration with the ECAFE secretariat, intensify its activities, through technical assistance and dissemination of technical information and experts meetings, in promoting modern cultivation techniques for increasing yields of oil seeds in the ECAFE region.
- (b) *Oil milling industry*
 - (i) That developing countries encourage small scale manufacturers to adapt themselves to new techniques of oil extraction. This may be done, if progressive closing down of small inefficient units is carried out and small manufacturers are encouraged to group themselves and form co-operatives to install modern efficient plants having larger capacities, say 100 to 150 tons of seed per day.
 - (ii) That industrial concerns interested in exporting oils be encouraged to group together in order to standardize their production, to adopt a common marketing policy and to arrange the transport of their products in the most economic way possible through bulk loading and large shipments.
 - (iii) That, in view of the considerable importance for rice producing countries of processing the rice bran produced by their rice mills, which represents a potential source of more than one million tons of oil worth at least \$300 million without placing any strain on the area of land at present cultivated, the establishment of well equipped oil mills to process rice bran be strongly encouraged on a priority basis. To that end, the following measures should be taken:—

- (a) The setting up of rice bran stabilization centres should be encouraged either in the rice mills themselves or near a group of rice mills, to eliminate the deterioration which this product undergoes when it has not been subjected to a simple appropriate treatment;
- (b) Once the rice bran has been stabilized, it should be collected for treatment in large extraction and refining plants. The establishments of oil mills having a minimum production capacity of 100 tons per day should therefore be encouraged. For this raw material, the latest extraction and refining techniques must be used.
- (iv) That a programme of installing about 100 plants (with a minimum production capacity of 100 tons per day) utilizing only 50 per cent rice bran of total available in rice producing countries, be immediately considered. The total investment envisaged is about \$155 million. The finance required may be provided from the Asian Development Bank or other sources and the programme may be completed in a period of about five years.
- (v) That measures be taken to encourage the setting up of oil mills capable of processing in a proper way oil seeds (such as cotton seeds and kapok seeds, Mahua and other minor oil seeds) other than copra or groundnuts which at present are utilized only to a small extent or not at all in ECAFE developing countries.
- (c) *Oil base industry*
- (i) *Soap and synthetic detergents.* Per capita consumption of soap in developing countries of the region is very low. With increase in per capita income, that consumption is sure to increase. Instead of increasing soap production, the ECAFE region should develop synthetic detergent industry, thus sparing a good amount of oil for edible uses. This industry is linked with the development of petrochemical industry for which specific recommendations are made in a separate section.
- (ii) *Cattle feed and protein industry.* The success of crushing industry largely depends on proper utilization of oil cake and meal which have a very good outlet as cattle feed and also as a good source of protein. It is of primary importance that farmers are educated in feeding cattle and livestock with prepared feed instead of oil cake. Cattle feed manufacture should be promoted in all countries and this will boost up oil milling industry. Further, soyabean meal is used for human consumption as a good source of protein. De-oiled groundnut meal, which also has a very large percentage of protein, should be also utilized for human consumption.
- (d) *Regional and international co-operation*
- (i) That the developed countries should take such measures as may be appropriate to encourage and assist the export of crude and refined vegetable oils from the developing countries.
- (ii) The United Nations Development Programme should:
- (a) Accord priority to the strengthening of research facilities in countries of the region for vegetable oil industry;
- (b) Establish immediately, with the assistance of countries advanced in the field, one or two pilot plants in appropriate locations in developing countries of the region for improving the techniques of oil extraction from rice bran with special reference to the fatty acid problem.
- (iii) The ECAFE secretariat, with the assistance of the United Nations Development Programme and in close co-operation with FAO, should establish as soon as possible an Oils and Fats Industry Advisory Group:
- (a) To undertake in consultation with the countries concerned, a comprehensive feasibility study for the establishment of some additional 110 rice bran oil plants in rice producing countries, as recommended in (b iv) above;
- (b) To assist in negotiation with the appropriate private, national or international industrial financing agencies for financing this rice bran oil scheme;
- (c) To render technical assistance and advice to Governments or

industries in the region on the development of oils and fats industries; and

- (d) To organize in consultation with the countries concerned a regional oils and fats research centre which will co-ordinate the collection and dissemination of technical information on the industry and provide any special research or testing services required by the participating countries. The proposed regional centre may be built up from one of the existing national research institutes by expanding and strengthening its resources.

(g) **Rubber industries**

104. The Conference commended the report of the Expert Working Group on Rubber Industries (I&NR/Ind.Conf./S.10). It noted that the ECAFE countries, particularly Ceylon, India, Indonesia, Malaysia and Thailand, situated in the equatorial region, accounted for nearly 91 per cent of the world's natural rubber production in 1964. Before the Second World War, the rubber goods manufacturing industries in the developed countries depended almost exclusively on the ECAFE region for their requirements of rubber; but, following the exigencies of the war and the interruption in the natural rubber supply to the traditional consumers abroad, synthetic rubber manufacture was developed and has since proved to be a serious competitor to natural rubber.

105. Rubber consumption in the world is steadily and rapidly increasing. In 1940, out of a total consumption of 1.42 million tons (all natural rubber), the ECAFE region produced 1.37 million tons. In 1964, world consumption rose to 2.23 million tons of natural rubber and 2.81 million tons of synthetic rubber, of which this region contributed 2.04 and 0.14 million tons respectively. It is further estimated that, by 1970, the total rubber consumption will amount to 2.75 million tons of natural rubber and over 3 million tons of synthetic rubber.

106. With the advent of synthetic rubber, the almost monopolistic position and high ruling prices of natural rubber cannot be sustained. If natural rubber production is to be economically viable, appropriate measures will have to be taken to modernize the rubber plantation industry on sound and economic lines. Among these measures are the replanting of areas with high yield varieties, proper fertilizers and suitable agronomic practices, improvement of labour productivity, and standardization of grading, packing, etc.

107. Natural rubber is the major export crop of the main rubber producing countries of the ECAFE region and contributes significantly to their foreign

exchange earnings. It is of the utmost importance, therefore, to ensure that the present position of natural rubber does not suffer unduly owing to competition from synthetic rubber. Natural rubber has certain advantages over synthetic rubber and it is hoped that, with international co-operation between rubber (both NR and SR) producing and consuming countries, the increasing future demands can be shared equitably between natural rubber and synthetic rubber. In this connexion, special efforts should be made to promote an identity of interests between the rubber user and rubber producer so that they can be mutually helpful and so that the use of natural rubber can be maximized.

108. Nevertheless, the Conference considered that, with increasing supply of synthetic rubber in the world market, it would be risky for the ECAFE rubber producing countries to depend entirely on exports of unprocessed rubber. Steps would have to be taken to develop the rubber goods manufacturing industries in the region. The Conference noted that the tyre and tube manufacturing industry which involves high capital outlay and specialized technical know-how, accounts for nearly 50 per cent of the total world's consumption of rubber. However, rubber is also a raw material for the manufacture of a large variety of goods, such as footwear, beltings, hoses, medical goods, sports goods, etc., most of which could be developed even on a small scale.

109. In view of the above considerations, the Conference recommended:

(a) *Natural rubber producing countries of the region*

(i) That the natural rubber producing countries of the region give urgent attention to the modernization of the plantation industry so that it can compete with synthetic rubber production. All new planning areas should be developed with seedlings of high yielding trees and existing low yielding trees should be replaced by high yielding varieties. The modernization measures should include application of fertilizers and appropriate agronomic measures, research and development work on the processing of latex into crude rubber, and quality control as well as measures to improve the overall productivity of the rubber plantation industry.

(ii) That, in order to help in implementing a modernization programme, the natural rubber producing countries establish and finance by suitable means research and development centres. The results of the research work carried out in these countries should be disseminated effectively for

the guidance of plantation owners both big and small.

- (iii) That, in order to avoid wasteful competition between natural and synthetic rubber, the rubber producing countries of the region and major rubber consuming countries, both within and outside the region, promote international co-operation in matters connected with the production, marketing and pricing policies, etc.

- (iv) That natural rubber producing countries of the region develop rubber goods manufacturing industries, including tyres and tubes.

(b) *Developed countries*

- (i) That there should be effective and continuous co-operation between natural rubber and synthetic rubber producing countries.

- (ii) That the developed countries encourage suitable joint venture schemes for establishing rubber manufacturing industries in the natural rubber producing countries.

(c) *United Nations and international agencies*

- (i) That FAO actively assist the rubber producing countries of the region in effectively modernizing and increasing the productivity of their rubber plantation industry.

- (ii) That the ECAFE secretariat, with the support of the United Nations Development Programme, and in consultation with the International Rubber Study Group and International Rubber Research and Development Board, actively help establish well-equipped research centres in the rubber producing countries of the region.

- (iii) That ECAFE and other United Nations agencies concerned render technical assistance to countries in the region in the establishment of rubber goods manufacturing industries.

(h) *Silicate industries*

110. The Conference, recognizing the importance of silicate industries, especially cement, to the developing economies, commended the work and the report of the Expert Working Group on Silicate Industries.

111. The Conference noted that:

- a. Production of *cement* in the member countries of the region rose from about 40 million tons in 1960 to 55.5 million tons in 1964, the latter figure representing 14 per cent of world's production

in 1964. The demand for cement in the member countries of the region is expected to rise to 100 million tons per year by 1970.

b. The production of *ceramics* in member countries of the region was 3.7 million tons in 1963, of which Japan, India and Australia accounted for more than 95 per cent.

c. The demand for the *refractories* would depend mainly on the development of the steel industry. The requirements for the anticipated steel production of the region in 1970, and for other refractory-consuming industries are estimated to be 4.5 million tons per annum by 1970.

d. The production of glass and glassware in the member countries of the region during 1963 was about 2 million tons, representing 13 per cent of the world's production. Japan, India, China (Taiwan) and mainland China accounted for more than 96 per cent of the region's production. The production of glass by 1970 is estimated to be of the order of 3 million tons.

112. The Conference was informed that, in spite of the several advantages it offers, the shaft kiln process had not been adopted in cement manufacturing in many countries of the region owing to the reluctance to try out new methods and to the mistaken notion that production of cement by this method is more costly. In the field of *ceramics*, most of the units in many countries of the region are obsolete. Furthermore, the fuel consumption is high and the quality of their products needs great improvements.

113. The Conference was informed that, while the technology of production of heavy clay products is relatively simple, the manufacture of low tension insulators and fire bricks involves a higher degree of skill and that, for the production of sanitary wares, H. T. insulators and fine crockery, the technical 'know-how' and skills are far more important than the mere availability of raw materials.

114. In the field of glass, the technology of production has undergone revolutionary changes, and modern techniques of production and better glass compositions are more important than economies of scale.

115. The Conference noted that the cost of glass is directly related to the cost of soda ash and that the high price of soda ash is one of the impediments in the growth of the glass industry in the region. There has been a rapid shift in demand for machine-made articles in preference to mouth blown and those produced by the semi-automatic sector.

116. The Conference recommended the following for the consideration of the developing countries of the region:

- (a) That they expand their existing cement industry to meet the growing demand for cement.
- (b) That the countries embarking on cement production for the first time choose the wet

- process in preference to the dry process owing to simplicity of operation and ease of obtaining cement of uniform quality, despite its higher fuel consumption; that countries with a developed cement industry and where fuel costs are high choose the dry process; and that countries with adequate resources of coke anthracite or petroleum coke but whose requirements of cement are low, being of the order of 30,000 to 60,000 tons/annum, adopt the shaft kiln process, and the wet or dry process for higher capacities.
- (c) That, wherever possible, expansion of the existing plants be preferred to the establishment of new ones owing to lower investment requirements and quicker results.
 - (d) That action be taken by the countries to prove fresh limestone deposits and further prove the known ones, in order to meet the demands of the expanding cement industry.
 - (e) That the cement machinery making countries of the region take note of the additional demand for such machinery and plan their production accordingly.
 - (f) That advantage be taken of recent developments in the field of masonry cement and that its production by inter-grinding limestone into clinker in the ratio of 1:4 be adopted.
 - (g) That, in the field of ceramics, every country in the region plan for self-sufficiency in heavy clay products; that production of domestic crockery, low tension insulators and low duty fire bricks be attempted only when demands justify economic and quality production and also when most of the raw materials are locally available and the necessary skills are developed; that the production of sanitary ware, H.T. insulators and fine crockery follow the first two stages of development.
 - (h) That a common production programme between the large and small scale sectors be established to eliminate the present unhealthy competition between them.
 - (i) That common facility centres be established to provide the technical know-how, graded raw materials, ready-made batches and body materials, firing and glazing facilities for the small ceramic production units.
 - (j) That, in the field of refractories, production of common fire clay be undertaken by countries with an annual demand exceeding 10,000 tons.
 - (k)
 - (i) That, in the field of glass, all countries aim to become self-sufficient in respect of general purpose glass and glass ware.
 - (ii) That the production of machine-made glass such as sheet, wired and figured glass, and vials be undertaken if local demands and export prospects justify their production at economic levels.
 - (iii) That the production of highly specialized glass articles be attempted when the necessary skills have become available.
- (1) That a common production programme between the small and semi-automatic sector on the one hand and the automatic sector on the other be evolved so that no harm is done to the industry in the interim phase of switching over from the manual and semi-automatic to the automatic sector, and that the existing units concentrate on specialized production of a few articles in preference to the present practice of producing a number of articles in the same factory and from the same melt.
117. The Conference further recommended that the ECAFE secretariat, with the assistance of the United Nations Development Programme and in co-operation with appropriate specialized agencies;
- (a) Assist in the establishment of national centres for training plant operators and foremen required for the expanding ceramics and glass industry in the region.
 - (b) Promote feasibility and productivity studies in the silicate industry. The secretariat should, in co-operation with interested institutions, evolve a common vocabulary of technical terms for raw materials, manufacturing process, and finished products.
 - (c) Convene periodical regional seminars on silicate industries to bring into focus from time to time problems facing the cement, glass and ceramic industries; and examine how far the measures adopted by the developed countries are applicable to the developing countries.
 - (d) Explore the possibilities of expanding and strengthening some of the existing national ceramic laboratories or research institutes for regional use.
- (i) **Forest products industries**
118. The Conference commended the Expert Working Group's report on forest products industries which reviewed in detail the status, characteristics, and structure as well as recent developments of the forest products industries in the ECAFE region.
119. The Conference noted:
- (a) That ECAFE countries have a total of approximately 487 million hectares of forest land, of which some 211 million hectares are known to be productive. However, many countries have no complete forest inventories although these are most necessary for the planning of the industries.

- (b) That the forest resources of the region are unevenly distributed. The natural forests are frequently heterogeneous and rarely able to supply uniform materials in quantity and at low cost.
- (c) That the mill size has a major influence on the unit production costs, the overall efficiency and the competitive standing of processing plants in the forest industries. Large mills are often able to integrate the production of two or more commodities. This has economic advantages in improved efficiency and in ensuring full utilization of all the different qualities of raw materials that are harvested.

- (d) That the overall consumption of all types of forest products in the ECAFE region has exceeded the expected rate of growth, especially in sawn timber and wood-based panel products. Consumption could continue to rise from 1963 to 1970 as follows:

Sawnwood and sleepers	From 70.9 million m ³ (round) to 94 million m ³ (round) at an annual rate of 4 per cent.
Wood based panel	From 5.4 million m ³ (round) to 9.2 million m ³ (round) at an annual rate of 8 per cent.
Total paper	From 8.96 million metric tons to 17.0 million metric tons, at an annual rate of 10 per cent.

- (e) That, in 1963, the region was a net exporter of sawnwood, sleepers, and panel products to the value of \$73 million and a net importer of pulp and paper to the value of \$275 million.

120. The Conference considered that forestry reinforces and promotes activity in the rural sector of a country's economy. At the same time, through the utilization of raw wood materials, forest industries provide increased diversity, self-sufficiency, and economic strength in the industrial sector. For sound development of these industries, the Conference recommended:

(a) *Forest resources*

- (i) That ECAFE countries maintain up-to-date inventories of forest resources and of the availability of other appropriate agricultural fibres for planning the development of forest industries.

- (ii) That, in view of the present and impending shortage of raw wood materials for pulp manufacture in different countries in the region, high priorities be given to the establishment of quick growing man-made forests, using for preference, where possible, long-fibred softwood species. The introduction of better quality bamboos, particularly in South Asia and in

continental and insular South-east Asia, should also be attempted.

- (iii) That, in view of the continuing shortage of softwoods and bamboos for pulping in several countries of the region, greater attention be paid to the utilization of other available raw materials, such as bagasse, tropical hardwoods, old rubber trees, cereal straws and jute sticks, and to the collection and use of wastepaper.

(b) *Forest industries*

- (i) That a central agency, such as FAO, undertake to review all regional projections of requirements for forest products at intervals of not more than 5 years. Member countries of ECAFE should make projections of their own national requirements.
- (ii) That an adequate number of timber treatment plants and dry kilns be set up to ensure the better utilization of many tropical woods by treating them with oil or water-borne preservatives.
- (iii) That the saw milling industry be encouraged, wherever appropriate, to install equipment for converting all slabwood and suitable residues to chip wood so that these materials may be used by other wood processing industries.
- (iv) That more attention be given to producing fibreboard and particle board using forest left-overs, sawmill and plywood mill residues, jute sticks, and bagasse.
- (v) That, in the establishment of new mills, particular attention be given by member countries to avoiding wherever possible the setting up of small uneconomic units. Small-scale paper mills should preferably produce paper board, tissues, printing and writing or specialty papers.
- (vi) That the Asia-Pacific Forestry Commission of FAO, in collaboration with the ECAFE secretariat, actively collate and disseminate information on investments, consumption of raw materials and chemicals, and utilities such as power, fuel, water, etc., by unit of production for the benefit of member countries.
- (vii) That, for the development of essential forest industries within ECAFE region, the minimum financial requirements during the period 1963-70 should be taken to be as follows (in million US\$):

Sawmilling	500
Panel Products	100
Pulp and Paper	3,500
<hr/>	
Total	4,100

Of this total, approximately US\$2,800 million will be needed for the purchase of machinery. Although a considerable part of this development will occur in Japan and may be expected to be financed by the existing industries, the Asian Development Bank and other agencies should finance as far as possible the requirements of all developing countries of the region.

(c) *Trade in semi-finished and finished timber products*

That the developed countries should take such measures as may be appropriate to encourage and assist the export of semi-finished and finished timber products from the developing countries.

(d) *Further action by United Nations/ECAFE*

That the ECAFE secretariat initiate, at the request of the member countries and with the assistance of the United Nations Development Programme, and in collaboration with the FAO, the following three projects:

- (i) Preliminary investigations of the development of unexploited but known resources of broad-leaved forests in the sub-regions of continental and insular South-east Asia, bagasse resources in sub-regions other than continental South-east Asia. Simultaneously, a detailed appraisal of availability of power, water and chemicals would be required for the drawing up of a sub-regional plan for the manufacture of pulp.
- (ii) The establishment of pilot plants for the utilization of old rubber trees, jute sticks, bagasse, banana and cassava stems, etc., in the manufacture of pulp and paper, fibre board and particle board. Research work on the application of science and technology for the utilization of these fibre materials would benefit not only this region but also developing countries of other regions.
- (iii) The establishment of several sawmilling demonstration centres in developing countries of the region with special emphasis on wood treatment techniques, saw doctoring practices and utilization of sawmill wastes.

121. In recommending these measures for the modernization and expansion of the forest product industries in the ECAFE region, the Conference noted

the statement that the New Zealand Government was currently considering the form of technical assistance which New Zealand experts might render to the region.

(j) **Construction industry**

122. The Conference recognized the special role of the construction industry in the developing countries of the region which are undergoing industrialization accompanied by rapid urbanization. An efficient and competent construction industry provides the sinews for the economic development of a country. As industrialization proceeds, new factories, roads, bridges, harbours, hydro-electric power plants, schools, houses, drainage and irrigation facilities, etc., have to be built. Almost all activities in all fields of human endeavour rely heavily upon the construction industry which accounts for about 75 per cent of the total capital formation in most countries of the region.

123. The Conference recalled the key economic and social changes expected in the United Nations Development Decade. Manufacturing output will have to rise many times if the goals for this sector are to be achieved. The location of new manufacturing capacity will have to be correlated with existing and new housing and the necessary services and facilities. Expanded extractive and service capacity will cause additional capital formation on a large scale. Against this background, the severe shortages in many of the countries of the region in housing and related services, including water supply and schools must be reduced so as to narrow the gap between growing needs and existing deficiencies.

124. The Conference noted that the building and building materials industries cut across activities affecting the lives of the major portion of the population and provide high employment potential. Despite its crucial role, however, the construction industry in most of the countries in the region has not been properly organized and has remained generally undeveloped, existing in small scattered undertakings and operating on handicraft basis.

125. An efficient and competent construction industry relies on four principal elements, namely: (1) a sufficient quantity of skilled labour; (2) an adequate supply of building materials and components; (3) adequate tools and equipment; and (4) competent building contractors. Evidently, the development and expansion of the construction industry in the countries of the region require increased training of its workers, the extensive use of expensive machinery, improvement of site organization, the use of new materials and industrialization of the building process.

126. The Conference noted that, among the priority areas proposed for action in the Development Decade, is housing and urban development because of its pivotal position in realizing economic and social progress. Failure in the developing countries of the region to provide housing and community services to remedy existing deficiencies and keep pace with

population growth is causing a decline in levels of living and impeding economic development. During the present decade there is expected to be a 30 per cent increase in the population of Asia. Because of the constant migration of the population from the rural to the urban areas, the urban population in Asia may be expected to double between 1960 and 1975.

127. The Conference felt that, if the countries in the region undergoing industrialization and urbanization fail to take effective measures in urban and regional development and physical capital requirements, notably housing and community services, for lack of the required productive capacity and other reasons, the inevitable result will be sharply declining standards of living in the midst of heavy investments in plant and factories, increasing human unhappiness and ill-health, which will create popular unrest and social and political tensions and, in consequence, reduce the productivity of the capital investments being made.

128. In view of the crucial role of the construction industry in the economic development of the countries in the region, the Conference recommended that the ECAFE secretariat undertake studies, in collaboration with the interested specialized agencies, and the United Nations Housing Committee and the Centre for Industrial Development, for promoting the growth, development, expansion and modernization of the construction industry in the region; and, on the basis of such studies, recommend to the member countries in the region such measures as are considered necessary for achieving those objectives.

(k) Food processing industries

129. The Conference commended the report of the ECAFE Expert Working Group on food processing industries. It noted the importance of these industries to the heavily populated countries of the region. In many of them, the available food supply is insufficient to meet present requirements. The steady increase in population has made this situation even more difficult. Further, while the overall food balance sheet may look satisfactory in a particular country, there are areas which suffer from severe shortages due to uneven distribution, lack of transport, storage and processing facilities. The food processing industries can play an important role in the conservation of available food, in its even distribution and in the expansion of food exports.

130. The Conference noted the following development problems of the food processing industries in the region:

- (a) Depending on technical, cultural and social conditions in the countries of the region, the manufacturing units can vary in size from small units with three or four workers to large units employing thousands of workers.
- (b) Traditional methods of food preservation can be modernized to allow factory production methods to be used; modern canning

and other techniques can be introduced and expanded. Imported, raw or semi-processed materials can also be used for processing and, in particular, this technique can be used to supplement the traditional diets or for production for export.

- (c) Food processing is of common interest to countries in the ECAFE region and some countries already possess a considerable amount of knowledge of food science and technology.

131. In view of these considerations, the Conference recommended:

- (a) That a Food Processing Industries Advisory Group be established with the assistance of the United Nations Development Programme to carry out a detailed survey of selected countries. The Group should undertake a comprehensive market study and make firm recommendations on types of plants required and their sizes and locations.
 - (b) That the Group advise countries on the introduction of the necessary legislation and administrative measures for inspection and testing of food products. In order to promote inter-regional and intra-regional trade in manufactured food products, developing countries of the region should adopt as far as possible uniform food regulations.
 - (c) That ECAFE, with the support of the UNDP and other agencies assist in establishing several centres in the developing countries of the region for conducting applied research and training of personnel, as the most difficult problems arise from lack of food technologists able to conduct researches to solve production problems and to develop new products for commercial manufacture. Modern techniques should be introduced through the work of these centres, such as canning, freezing, dehydration, extraction of protein from soyabean and peanut, etc.
 - (d) That FAO, in consultation with the countries concerned, assist in the establishment of a Fishery Research and Development Centre in the region. The centre should undertake fishery resources surveys in the region, provide facilities for the training of technical personnel especially in deep-sea fishing techniques, and advise participating countries on the development of fishery harbours and auxiliary industries in conjunction with the ECAFE secretariat.
 - (e) That a periodic Asian Food Industries Conference be organized under the auspices of United Nations agencies.
132. The Conference further recommended:
- (a) That developed countries take appropriate measures to encourage the export of manu-

factured food products from the developing countries.

- (b) That international co-operation be developed for the training of technicians and students in the food processing industries.
- (c) That, since there is a great scope for developing the following types of processing plants in various countries of the region after proper study and investigations, if necessary, with the assistance of United Nations agencies, the Asian Development Bank should accord high priority to requests for financing these projects:
 - (i) Protein extraction plant using coconut and other plant product material;
 - (ii) Fish canning;
 - (iii) Fruit canning;
 - (iv) Refrigerated distribution systems;
 - (v) Fruit, vegetable and fish dehydration plants.
- (d) That specific joint ventures be organized between interested parties, such as the establishment of suitably located plants to produce machinery and equipment required by food processing plants in several countries. First priority should be given to can-making plants. The establishment of such plants in the developing countries of the region should receive the support of the Asian Development Bank.

(I) **Pharmaceutical industries**

133. The Conference commended the report prepared by the Expert Working Group on pharmaceutical industry. It noted that this industry is at different stages of development in various countries of the region. While in a few countries it has developed progressively into basic manufactures, in practically all the developing countries, it has remained mainly a processing and packaging industry.

134. Traditional systems of medicine are still in vogue and medicines prepared under those systems have a great appeal to the masses in several countries of the region; but, progressively with the introduction of modern medical facilities, the demand for drugs required by the modern systems of medicine is rising steeply. Japan and Singapore had in 1963 a *per capita* consumption of drugs of \$5. Based on even a modest *per capita* consumption of \$2, the demand for pharmaceutical products in countries of the region would reach several billions of dollars.

135. In some of the ECAFE region countries, there are no proper surveys of prevalent diseases or planned health programmes to tackle them, and the demand for drugs has therefore remained low in spite of a high incidence of disease.

136. There are vast potentialities in the ECAFE region countries of raw material supply for the production of botanical drugs, as medicinal

plants either already grow wild or can be cultivated. For drugs of animal origin, glands and organs of slaughtered animals can be easily utilized.

137. The Conference noted that nutrients such as starch, corn steep liquor, soya beans, sucrose, etc., for preparing media for the fermentation industry, especially the antibiotics industry, are already available. The other chemical raw materials required for the production of antibiotics and synthetic drugs are, however, greatly lacking in several of the countries of the region, as the chemical industry which supplies these materials is in an undeveloped state.

138. The Conference considered that an uncontrolled and irresponsible pharmaceutical industry can do more harm than good. There is an urgent need for strengthening governmental agencies in developing countries of the region concerned with the regulation, licensing and control of production and sales of drugs. Uniform standard-control measures are a precondition for the development of a genuinely local pharmaceutical industry.

139. It was also considered that pharmaceutical industry is one of the most fruitful areas for sub-regional co-operation in terms of specialization in production, market-sharing, and more efficient utilization of development resources especially trained technicians and research facilities. There is an urgent need to develop pharmaceutical industry in the region that is more closely related to its diseases and health problems; production and research programmes should be oriented accordingly.

140. Taking into account these considerations, the Conference therefore recommended:

(a) *Planned health programmes co-ordinated with pharmaceutical manufacture*

(i) That, in order to take advantage of the advances in science available to the people of this region, countries should, with the assistance of WHO, undertake extensive health programmes after making a proper survey of the various diseases prevalent in their territories.

(ii) That, hand in hand with the building of the unified health services and improvement of medical care, manufacture of pharmaceuticals be undertaken in line with the demands that the health programmes create both for the prevention and treatment of different diseases.

(b) *Raw materials*

(i) That a survey be undertaken of the various natural raw material resources that the pharmaceutical industry will require. Where it is found that these raw materials can be made available at economic prices to the industry, their scientific collec-

- tion should be organized to permit uninterrupted supplies to the industry.
- (ii) That, in the case of raw materials of vegetable origin, to prevent depletion of natural resources, their scientific cultivation for replenishment be simultaneously undertaken. Taking advantage of favourable soil and climatic conditions, cultivation of medicinal plants required by the industry should be organized on a large scale.
- (iii) That experimental farms be set up to work out methods for improving the contents of required single constituents of active principles that are needed by the industry.
- (iv) That animal glands and organs required for the production of hormones and other glandular preparations be collected by setting up modern abattoirs with facilities for their quick collection, storage and transport under refrigerated conditions to prevent the deterioration of the active principles before they reach factories for their extraction.
- (c) *Antibiotics and products obtained by fermentation techniques*
That production of antibiotics and other drugs using fermentation techniques should be organized in large units, properly located with regard to the supply of raw materials, energy, water supply, effluent disposal and other facilities.
- (d) *Synthetic drugs*
That the production of synthetic drugs, which requires a corresponding development of the chemical industry in these countries, be firstly made from imported intermediate products. Later, it can be extended to the basic manufacturing stages in keeping with developments in the chemical and other chemically-based industries.
- (e) *Training of personnel*
That the Governments concerned should take immediate steps for training the personnel, such as chemists, pharmacists, pharmacologists, microbiologists, etc., required for manning the various projects.
- (f) *Government regulation and support*
- (i) That, to prevent production of non-standard drugs and protect consumer interests, appropriate national agencies be established by enacting suitable legislation to regulate production and distribution.
- (ii) That, in order to encourage progressive local manufacture and to prevent excessive import competition, such national agencies give appropriate consideration to the customs tariff on imported capital equipment, instruments for quality control, raw and packaging materials, and on imports of drugs in bulk, semi-finished or finished condition.
- (g) *Patent legislation and know-how arrangements*
That, as many of these manufacturing programmes would require a supply of technical know-how from advanced countries, proper legislation be enacted to protect the interests of investors and enable them to make available the latest know-how for efficient and economic production. However, in order to prevent abuse of the patent rights, it is advisable to introduce clauses for compulsory licensing for essential products into the patent law.
- (h) *Traditional systems of medicine*
That, in the health programmes in these countries, advantage should be taken of medicaments made by the traditional systems of medicine by organizing their production on modern lines and adopting proper standardization methods, especially for use in areas where modern medical facilities have not yet been introduced. A proper screening of these preparations for their usefulness would also be necessary to eliminate ineffective remedies. Such screening programmes might also bring to light useful remedies which could be adopted for use in modern systems of medicine.
- (i) *Regional and international co-operation*
- (i) That the ECAFE secretariat, in consultation with the countries and the international agencies concerned, assist in the establishment of a regional Pharmaceutical Industry Advisory Board. The major functions of the Board would be as follows:
- (a) To advise on the development of pharmaceutical industries in the participating countries with special reference to the formulations of joint projects.
- (b) To advise on the formulation of uniform drug legislation where appropriate.
- (c) To advise and co-ordinate the training of technical personnel.
- (ii) That the ECAFE secretariat, in consultation with the countries concerned and the United Nations Development

Programme, assist in establishing a regional research centre on cultivation and extraction of ingredients from medicinal plants and other vegetable materials.

- (iii) That suitable regional or sub-regional units for the production of antibiotics employing technical "know-how" already available in the region should be set up with the assistance of UNICEF, WHO and countries with the relevant technical "know-how".
- (iv) That, as drug projects require large capital investment which may not be within the resources of the local entrepreneurs, aid from Governments of the region and international organizations such as the Asian Development Bank for financing these projects should be obtained. Such projects may be organized by a group of countries by pooling their resources of finance and raw materials, etc.

(m) Textile industries

141. The Conference commended the Expert Working Group's report on textile industries (I&NR/Ind. Conf./S.4) which examined the development of cotton, wool, jute and allied fibres, man-made fibres as well as of natural silk. It also discussed the question of automation and selection of machinery, raw material supplies, productivity, prospective growth of various branches of the textile industry and, finally, the scope for regional co-operation.

142. The Conference noted that textile industries are the first substantial industrial activity normally undertaken by countries of the ECAFE region. Several of these countries have engaged extensively in textile manufacturing and have achieved remarkable success, thereby transforming themselves from textile importers into exporters. However, the extent of such development varies from country to country.

143. For the region as a whole, the demand for cotton man-made fibres and wool reached 3.1 million tons in 1962. Cotton accounted for as much as three-quarters of the total demand in 1962; the demand for man-made fibres was 11 per cent and that for wool remained at 2 per cent. *Per Capita* consumption in the region amounted to 3.24 kilogrammes in 1961, representing an increase of 33 per cent when compared with 2.43 kilogrammes in 1953. Based on population and income projection, it is estimated that the demand for these fibres in 1970 (1957-1959=100) from ECAFE countries excluding Japan will be between 153 and 176.

144. The production of cotton yarn in the region increased to 2,313,500 tons in 1962. Comparing the cotton yarn production with the domestic

demand for cotton textiles, the self-sufficiency rates increased from 98 per cent in 1953 to 104 per cent in 1962. Production of man-made staple and filament in the region increased from 247,000 tons in 1953 to 685,000 tons in 1962. As for wool products, production and exports more than doubled.

145. The Conference noted that, in the light of the world textile situation, especially cotton textile production and trade, the continuing expansion of textile industries in the developing countries of the region will require the close collaboration of developed countries. Meanwhile, the textile industry in many countries of the region is expected to continue to expand primarily for meeting the domestic demand.

146. The aggregate operational spindleage in the cotton textile industry of the four significant producers of the region, namely, India, Japan, Pakistan and Hong Kong, totals 26.8 million spindles. The machine complement, however, varies considerably in age and performance, thus necessitating replacement and modernization on the basis of exact plant analysis.

147. For the rationalization and expansion of the industry in the region, the Conference recommended:

(a) Raw materials supplies

That ways and means be devised to increase output of raw materials such as cotton, wool, jute and kenaf and silk and to attain easier access to substitute raw materials, namely man-made fibres.

(b) Machinery

That, as the major cotton textile producing countries in the region with the exception of Japan have to contend with problems of machine obsolescence and replacement, an annual 10 per cent replacement rate of machinery may be aimed at, so that after a decade the entire plant and machinery will be replaced completely. It has been estimated that the average replacement expenditure would amount to \$200 per spindle. New units should be planned and laid out according to the modern pattern and should be equipped with up-to-date machinery. This would require financial outlays of great magnitude and the projected Asian Development Bank should play a vital role in the sector of textile industries.

(c) Employment

That related industries such as hosiery, handloom, and garment manufacture, which provide employment to large numbers, be encouraged.

(d) Operational efficiency

That rationalization of processing, the latest management techniques and a quality control system be introduced.

(e) Regional and international co-operation

- (i) That, in the field of textile machinery manufacture, which involves the establishment of sizeable machinery complexes and the organization of supporting technical services, the benefits of regional co-operation be considered.
- (ii) That the ECAFE secretariat, with the support of the United Nations Development Programme and in co-operation with the United Nations Centre for Industrial Development and other agencies concerned:
 - (a) Assist the national Governments upon request to set up specialized agencies for making detailed fundamental investigations by teams of experts in connexion with the perspective planning of textile industries in the region.
 - (b) Identify institutions and facilities for advanced training in textile industries established in leading textile manufacturing countries of the region, such as Japan, India and Pakistan, which should be made available to the managerial and technical personnel from other countries of the region; and
 - (c) Assist in establishing several well equipped textile research and testing centres in the less developed countries of the region, thus expediting the transfer of technology in this field.
 - (d) Organize, in consultation with the countries concerned, consultative services which should be made available to all countries of the region.

(n) Small-scale industries

148. The Conference had before it five documents relating to this subject: the Expert Working Group's report on Small-Scale Industries (I&NR/Ind. Conf./S.1), a document entitled "Issues and policies in the promotion of small-scale industries" (I&NR/Ind. Conf./13) submitted by the United Nations Centre for Industrial Development, another entitled "Promotion of Small Industries" (E/CN.11/I&NR/Ind. Conf./L.21) submitted by ILO, another called "Small Industries in the APO Member Countries" (E/CN.11/I&NR/Ind. Conf./L.22) prepared by the APO, and a paper entitled "Utilizing Poorly Mechanized Forms of Manufacture in Economic Development" presented by the Government of the Soviet Union.

149. The Conference noted that the term "small industries" generally refers to all types of manufacturing activity carried on in the home or small factories, including traditional and modern enterprises, hand and machine production, urban and rural establishments. It is, however, important to distinguish clearly between modern small industries and traditional cottage industries in formulating programmes for their promotion and development. The problems of modern small industries are distinct from those of traditional industries and call for different programmes of promotion and assistance. Even for the group of modern small-scale industries, no uniform definition for all countries of the region could be suggested because conditions and problems of small-scale industry vary substantially among the countries.

150. In terms of the number of units as well as employment provided, small-scale industries play a major role in most countries of the region. Even in the more industrialized countries, such as Japan and Australia, the contribution of small factories to employment or value added is considerable. Many consumer and producer goods are being economically manufactured in some countries of the region on a small-scale basis. Given adequate facilities as well as supporting technical services, small industries would be able to play an important role: (1) in providing a training ground for entrepreneurs, (2) in helping the formation of capital for use in productive enterprises, (3) as ancillary units of large-scale industries, (4) as producers of consumer and simple producer goods to replace imports and (5) as industrial pioneers in rural areas.

151. The Conference considered that the development and promotion of small-scale industries in the region face problems of (1) technology, (2) management, (3) finance, (4) marketing, (5) raw materials and (6) factory accommodation. There are four major fields in which countries of the region could be assisted in the development of small-scale industry. They are: (1) formulation of suitable industrial policies, (2) formulation of integrated programmes, (3) planning and establishing suitable institutions and strengthening of existing specialized ones to implement policies and programmes for small-scale industry development and, especially, (4) the provision of experienced and practical experts to improve the technological and managerial level of various branches of small industries.

152. In the promotion of cottage and traditional industries, development planners should identify those trade and crafts which have scope and potentials for transformation into efficient modern small factories or small-scale industries. The most effective programme in the strategy for development will require (1) an industrial policy in accordance with which industries of various sizes and scales can not only co-exist but also function in close complementarity with each other and plans or promotion and development can form an integral part of the

overall national programme of industrialization; and (2) technical and financial assistance, which, being indispensable, should be provided in an integrated manner to achieve maximum results. Based on the experience of some of the countries of the ECAFE region, the main types of assistance should consist of: (1) industrial advisory services, (2) management training, (3) industrial research services, (4) development financing, (5) industrial estates, (6) common facility services, (7) marketing aids and (8) facilities for ancillary development.

153. The Conference considered that the co-operative movement could play an important role in the development of small-scale industry by assisting in the procurement and distribution of raw materials; the provision of technical and consultancy guidance, common sales outlets and common facility centres; undertaking market research and development of new products; exploration of new markets, giving credit guarantees of bank loans, etc.

154. Taking into account all these considerations, the Conference recommended:

- (a) That the definition of small-scale industries in each country be determined, as far as possible, on the basis of fixed assets and employment provided.
- (b) That the United Nations and its specialized agencies accord high priority to the improvement of production and management techniques by training supervisors, foremen, designers, skilled workers, etc.
- (c) That the United Nations and its agencies, on request, depute teams of experts to review and give advice to countries of the region on the formulation of suitable industrial policies, integrated programmes and plans, and the establishment of suitable institutions for the promotion of small-scale industry as an integral part of the overall national programme of industrialization.
- (d) That the United Nations and its agencies assist countries of the region to conduct detailed economic investigations and surveys

to help determine the scope for small-scale industries as ancillaries to large undertakings in the private and public sectors.

- (e) That the United Nations and its agencies organize conferences, seminars and workshops more frequently on specific subjects such as service institutes, extension centres, quality control centres, training institutes, industrial development corporations, financial institutions, etc., not only to train the needed qualified personnel but also to stimulate interest in plans and programmes for the development of small-scale industry.
- (f) That the United Nations and its agencies organize a small group of experts from the ECAFE region to visit the Small Industry Extension Training Institute (SIETI) at Hyderabad, India, the Nippon Institute for Improvement of Small Enterprises at Tokyo, Japan, and the Light Industries Services (LIS) in Singapore to study their courses of training and other activities and make suitable recommendations on the possibility of expanding their activities and facilities in order to enable these institutes to accommodate the training of extension personnel from various countries of the ECAFE region.
- (g) That selected personnel in charge of small-scale industry development programmes be deputed for training in industrially advanced countries both outside and inside the region under the fellowship programmes of the United Nations and its agencies.
- (h) That developing countries which intend to establish industrial estates avail themselves of the assistance which the United Nations and the United Nations Development Programme provide for this purpose, particularly in the planning, establishment and management of demonstration industrial estates with the assistance of financial institutions.

II. ACTION BY THE CONFERENCE ON THE FINDINGS AND RECOMMENDATIONS OF THE SECOND COMMITTEE

155. The Second Committee was established by the Conference at its plenary session on 7 December 1965 and elected the following officers: Mr. G.L. Easterbrook-Smith (New Zealand), Chairman; Mr. A.H. Khan (Pakistan), and Mr. Ernest Wong (Singapore), Rapporteurs.

156. The following items of the agenda of the Conference were allocated to the Second Committee:

V (c) Mobilization of financial resources.

(d) Expansion of trade in manufactures and semi-manufactures.

157. The Committee had before it the following background documents dealing directly or indirectly with the subjects under discussion:

V(c) E/CN.11/I&NR/Ind.Conf./L.15: Report of the Preparatory Meeting of Senior Officials for the Asian Conference on Industrialization.

I&NR/Ind.Conf./S.7: Expert Working Group's Report on Industrial Credit and Financing.

E/CN.11/I&NR/Ind.Conf./L.8: External Assistance for Industrialization.

V(d) E/CN.11/I&NR/Ind.Conf./L.4: Industrialization and Foreign Trade.

158. The findings and recommendations of the Committee, as approved by the Conference at its plenary session, are set forth hereunder, it being understood that they imply no change in the position taken or commitments entered into by Governments of ECAFE member countries at the United Nations Conference on Trade and Development.

Agenda item V(c)

Mobilization of Financial Resources

External assistance

159. The Conference noted the significance of external assistance for the development of all developing countries: in 1963 it reached a volume of some \$6 billion, which amounted to one-fifth of their total export earnings. The share in this assistance of the developing countries in the ECAFE region (excluding the centrally planned economies) was about \$2.7 billion, which worked out to an even higher proportion of their export receipts.

160. The flow of external funds into the ECAFE region has been more or less constant in recent years although the aggregate flow of international capital into all the developing countries has shown an upward trend. Thus the relative share of the ECAFE region

has declined, although its population is much greater than that of other developing regions. Also, among the ECAFE countries, the distribution of external assistance seems to be uneven when the economic needs of individual countries are taken into consideration.

161. As a large part of the official lending consists of guaranteed export credits at commercial rates of interest linked to particular supplier countries, the debt-servicing burden of the recipient countries, which has already become a problem for several ECAFE countries, is increased. The fact that a considerable part of the outstanding debt is due to be repaid within the next 3 or 4 years has further aggravated this problem.

162. Various restrictions on the utilization of external assistance by the ECAFE countries have reduced the effectiveness of such funds in promoting the rapid industrialization of the region by raising the cost of projects.

163. The Conference noted that heavy payment on investment was another problem of the developing ECAFE countries. In 1963, these countries received \$181 million of net private capital investment (including reinvestment), whereas their net remittance of investment income amounted to about \$708 million or about four times as much. It is recognized, of course, that there are ancillary benefits not reflected in foreign investment figures such as the indirect balance of payments benefits in the form of import substitution or export expansion or the income and employment effect created by such investment. Nevertheless, the heavy payment on investment is still a problem of serious implications to the developing countries of the region.

164. The Conference expressed the opinion that continuing external assistance to the developing countries of the region on a large scale, at least over next ten or fifteen years, will be required. It has been estimated that, if the ECAFE countries are to achieve the Development Decade target of 5 per cent annual overall growth by 1970, their current account deficit will increase to \$6 billion. However, if their terms of trade deteriorate during the 60's as they did during the 50's, that deficit will be considerably larger. It has to be met, on the one hand, by accelerating the flow of external assistance and, on the other, by increasing the countries' export earnings, primarily through the export of manufactured goods, and by the saving of foreign exchange through increased import substitution. On the basis of current trends, external assistance to the developing ECAFE countries can be expected to increase to some \$4 billion by 1970; but it is considered that it will have to increase

to at least \$6 billion, if the goal of the Development Decade is to be achieved.

165. The Conference emphasized, however, that, while external assistance could give stimulus to development and provide a large part of the wherewithal, actual development would depend on the efforts and the policies of the developing countries themselves. Moreover, their basic problem lies in the declining trend of the growth of export earnings from primary commodities. Simultaneously with taking steps to increase the flow of external assistance, therefore, action is required to stabilize primary commodity prices in international trade and to give increasing opportunities to the countries' exports of manufactures by removing trade barriers.

166. During the last decade or so, though the ECAFE countries have taken some steps in tapping the financial domestic resources, there is further room to strengthen the institutional structures to make them more effective in the mobilization of such funds.

167. Corporate savings in the form of retained earnings have become more and more important for providing finance to the industrial sector, as they constitute the most direct means of capital formation and enable existing enterprises to mature into more economical units and at the same time to be in a position to assume greater risk.

168. The need for public savings becomes more important as there are increasing requirements for general infrastructure to promote further industrialization. The retention of earnings of public enterprises has been practised more widely and constitutes another important source of funds.

169. Despite a number of measures taken by most of the Governments of the ECAFE countries to attract foreign private capital, there has been a downward trend in its flow into the ECAFE region, the exceptions being Malaysia, Singapore and Thailand.

170. The pattern of distribution of savings at their existing levels in the ECAFE countries offers considerable scope for further mobilization. An effective institutional framework is, however, needed with a view to attracting savings and channelling them into industrial investments.

171. Most countries have designed institutional frameworks for industrial investment suited to their economic objectives. The institutions, either financial or non-financial in nature, which commonly comprise the commercial banks, stock exchanges, investment trusts, industrial development banks and industrial development corporations, vary in effectiveness. The commercial banking system, by far the most effective in the collection of savings, is reluctant to engage in long-term lending to industry for considerations of safety and liquidity. The underwriting facilities are not adequately developed and the quality and variety of securities available for various kinds of investors are limited. In the initial stage of industrialization and in the absence of a proper institutional mech-

anism, the industrial development corporations in some ECAFE countries have been useful, by undertaking industrial projects themselves with the ultimate object of transferring or enlarging ownership among general investors after they have demonstrated successful operations. Investment trusts have also begun to show their usefulness in attracting small savings and in popularizing security holdings.

172. Most of the industrial investment institutions in ECAFE countries have been particularly useful for the requirements of large-scale industry and relatively less attention has been devoted to those of the small and medium-scale industrial sectors.

Measures and action

173. The Conference therefore recommended the following:

External assistance

- (i) All countries and organizations should make every possible effort to assist early and full implementation of the measures for strengthening international financial and technical co-operation as recommended by the United Nations Conference on Trade and Development in its Recommendation A.IV.1.
- (ii) Financial co-operation provided by industrialized countries to developing countries should take into account, in establishing repayment terms and interest rates, the over-all repayments capacities of the borrowing country (UNCTAD, A.IV.1).
- (iii) Developing countries should continue to improve their investment climate, encouraging an increased inflow of external capital and providing incentives for reinvestment of profits with a view to limiting its outflow in the form of principal, interest and profits. In particular, the economic integration of national economies can go a long way towards improving the investment climate, as experience elsewhere has shown. It is hoped that the ECAFE secretariat will undertake a comprehensive study not only of the inflow of external capital but also of the outflow of funds from developing countries in such form as remittances of principal, profit, dividend and interest, etc.
- (iv) The ECAFE secretariat, in collaboration with the Asian Development Bank and the International Chamber of Commerce, should undertake at an early date a study of laws and practices governing foreign investment in developing countries. Such a study should reveal the common features as well as differences subsisting among such laws and practices and contribute to more rational formulation of policies and

measures to improve their investment climate.

- (v) In order to provide incentives for private funds, further removal of avoidable restrictions on the flow of capital both by the fund recipient countries and capital export countries as well as multilateral institutions is called for. In the implementation of this programme, it seems necessary to provide the conditions which meet the needs of the developing countries.
 - (vi) Financial co-operation provided by industrialized countries to developing countries should permit as far as possible the free use of external resources in the acquisition of goods and services in those markets which offer the best conditions of price, quality and terms including the markets in the recipient and other developing countries, unless otherwise required on balance of payments grounds, although it is recognized that even such grounds do not always justify a different course, and should take into account the need to provide continuity so as to allow the most efficient planning of the economic growth of developing countries (UNCTAD, A.IV.1).
 - (vii) Further strengthening and expansion of multilateral assistance institutions should be carried out to make them even more effective.
- Industrial credit and financing*
- (viii) The possibility of holding an Industrial Finance Conference, on a regular basis, if possible in different parts of the region, under the joint sponsorship of the ECAFE and the Asian Development Bank should be explored to review the progress made by the member countries with special reference to the recommendations made by the Asian Conference on Industrialization. Such a conference would constitute a continuous means of reviewing the problems of the region, and would provide an opportunity for development planners, bankers and industrialists as well as representatives of other institutions of the capital market to exchange ideas and learn one another's problems. In order to make the Conference effective, it is suggested that all the institutions involved in development planning and financing should be represented and that, with the exception of the opening and closing sessions, the meetings should be conducted on a round table basis. Different groups should deliberate on matters concerning their respective fields. In order that the participants may speak freely, it is further suggested that, with the exception of the final consensus of opinion, no record should be kept.
 - (ix) The ECAFE secretariat should undertake at an early date a study to estimate the financial requirements for achieving the physical targets recommended by the various groups on individual industries, as well as the availability of domestic resources in the ECAFE region. Such a study should determine, as far as possible, the gap between needs and resources for industrialization of the ECAFE region.
 - (x) In developing countries of the region, more effective means of capital formation should be adopted. The fundamental need is to maintain a stable economy. Further strengthening of institutional structure to offer a wider network of facilities, as well as simplified procedure and higher interest rates, may help to attract more domestic household savings. To promote corporate savings, measures to plough back the profit should be encouraged.
 - (xi) As for the public savings, fiscal and taxation policy should be formulated in such a way that it will stimulate further industrialization.
 - (xii) The banking laws in some of the ECAFE countries should be revised so as to encourage both commercial and state banks to participate more actively in long-term financing for industry. The techniques of long-term lending for industry require specialized appraisal with which the commercial banks are not familiar. To start with, the commercial banks may engage in the operations jointly with industrial financing institutions, which should be mainly responsible for the appraisal of loan applications.
 - (xiii) Special efforts should be made to provide underwriting facilities for the floatation of new issues. These facilities would also lead to improvement in the quality of offerings. The possibility of organizing special investment corporations to undertake underwriting of shares and stock should be considered.
 - (xiv) The ECAFE countries in which institutions for industrial finance are not developed should consider the establishment of industrial development corporations. However, such corporations, instead of undertaking the projects entirely by themselves, should encourage participation by private enterprise at the initial stages, restricting their own participation to such a level as would be necessary to lend confidence to and attract private investors.

*Expansion of
trade in manufactures and semi-manufactures*

174. The Asian Conference on Industrialization took note of the following comprehensive recommendations of the United Nations Conference on Trade and Development (UNCTAD) concerning trade in manufactures and semi-manufactures:

- (i) Criteria for development of industries with an export potential in developing countries (A.III.3);
- (ii) Measures and action for promotion of trade in manufactures and semi-manufactures among developing countries (A.III.8);
- (iii) Guidelines for tariff and non-tariff policies in respect of manufactures and semi-manufactures from developing countries (A.III.4);
- (iv) Measures by the developed countries with market economies to assist the expansion and diversification of exports of manufactures and semi-manufactures by developing countries (A.III.6); and
- (v) Principles relating to transit trade of land-locked countries (A.I.2).

175. The Conference expressed the view that a constantly increasing volume of exports of manufactures and semi-manufactures from the developing ECAFE region was particularly important for the following reasons:

- (i) Increasing exports of manufactures and semi-manufactures should help the region to earn foreign exchange to permit the indispensable increase of imports of investment goods and others required in the process of industrialization.
- (ii) Increasing exports of manufactures and semi-manufactures should provide to the newly established industries in the region sufficiently large markets to realize economies of scale and reduce the unit cost of production.
- (iii) Increasing exports of manufactures and semi-manufactures should help to reverse the present unfavourable trend in the terms of trade of the ECAFE region.
- (iv) Increasing exports of manufactures and semi-manufactures should contribute to the economic independence of the countries of the ECAFE region and provide them with a greater capacity for adaptation to the rapidly changing conditions of the world economy.

176. The Conference expressed concern over the extremely low share which the ECAFE region occupies in world trade in manufactures and semi-manufactures, amounting to only 2.9 per cent of the

world total, and over the very low *per capita* volume of exports of manufactures and semi-manufactures of the developing countries of the region, especially in the context of an increasing growth in world trade in manufactures.

177. Taking all these matters into consideration, the Conference recommended:

- (i) That the opportunities and outlook for trade in manufactured products be fully considered in future industrialization planning and that any new machinery for regional promotion of industrialization should pay careful attention to the trade problems, especially those of intra-regional trade.
- (ii) That steps be taken to build up export-oriented industries within the framework of an agreement for regional diversification and specialization to be worked out by appropriate institutions at the regional level and implemented within the shortest possible time; and that, for this purpose, techno-economic feasibility surveys be undertaken as early as possible for regional, and sub-regional schemes of specialization.
- (iii) That steps be taken at the regional level for progressive improvement in the processing and fabricating of raw materials; that this be done on an agreed regional and sub-regional basis in accordance with techno-economic feasibilities in order to increase the trade in manufactures and semi-manufactures; and that immediate consideration be given in this connexion, in co-operation with the competent organs of the United Nations and other bodies, to the study of the processing of coconut, rubber timber products and other materials which are suited to progressive processing and fabrication.
- (iv) That the ECAFE secretariat obtain from the secretariat of UNCTAD, in a form which ECAFE member countries find appropriate and in accordance with the resolution of the second session of the Trade and Development Board of UNCTAD and on the basis of the UNCTAD Final Act, detailed information pertaining to trade on a commodity basis in those manufactures and semi-manufactures for which arrangements in accordance with the resolutions of the UNCTAD have been made; and that this information be made available for consideration by the Second Asian Conference on Industrialization.
- (v) That countries of the region undertake trade promotion measures, for providing a fuller knowledge of one another's indus-

trial products and development plans, particularly through joint facilities for, and exchange of, information research, standards and similar matters.

- (vi) That schemes of industrial co-operation between developing and developed countries to set up joint enterprises in developing countries for producing goods required in developed countries be further explored;

- (vii) That efforts be made to facilitate trade and payments on a multilateral basis between the developing ECAFE countries and the developed countries.

- (viii) That, for the benefit of developing ECAFE countries, the ECAFE secretariat make a careful and detailed study of manufactures and semi-manufactures from developing ECAFE countries.

III. ACTION BY THE CONFERENCE ON THE FINDINGS AND RECOMMENDATIONS OF THE THIRD COMMITTEE

178. The Third Committee was established by the Conference at its plenary session on 8 December 1965 and elected the following officers: Mr. F.E. Anderson (Australia), Chairman; Prof. H.K. Valbeda (Netherlands) and Dr. Urbano A. Zafra (Philippines), Rapporteurs.

179. The following items of the agenda of the Conference were allocated to the Third Committee:

- V(e) Advancement of technological levels.
- (f) Strengthening of institutional arrangements.
- (g) Development of infrastructure.

180. The Committee had before it the following background documents relevant to the subjects of the agenda item assigned to its responsibility:

V(e) E/CN.11/I&NR/Ind.Conf./L.15: Report of the Preparatory Meeting of Senior Officials for the Asian Conference on Industrialization.

E/CN.11/I&NR/Ind.Conf./S.13: Industrial Research and Design.

E/CN.11/I&NR/Ind.Conf./S.6: Standardization, Patents and Marketing.

E/CN.11/I&NR/Ind.Conf./L.19: Establishment of a Regional Standards Organization in the ECAFE region: Programme of Action.

I&NR/Ind.Conf./14: The Promotion of Industrial Standardization in Developing Countries.

E/CN.11/I&NR/Ind.Conf./8: Note by the Secretary-General on the Report of the Expert Working Group on Standardization, Patents and Marketing Part II — Patent (I&NR/Ind.Conf./S.6).

E/CN.11/I&NR/Ind.Conf./L.6: The Application of Science and Technology to the More Effective Use of Raw Materials.

181. The Committee held three meetings from 15 to 16 December 1965. Its findings and recommendations as approved by the Conference in plenary session are as follows:

Agenda item V(e)

1. Advancement of technological levels

182. The Conference recognized the role of science and technology in building up a strong and dynamic foundation for economic and social progress, and that scientific and technological research and development are the prime generators of industrial

productivity. The Conference emphasized the application of science and technology to the more effective use of raw materials as a means of promoting industrialization in the developing countries of the region. It noted the low technological level of the developing countries of the region and realized that industrialization of the region, especially an accelerated one, could not be achieved without the advancement of science and technology in each of these countries. A sound national science policy and a national research and development programme suited to local needs and conditions must be formulated and integrated with national economic planning.

183. The Conference was aware of the urgent need for the promotion of science and technology in the region and felt that science teaching must be given high priority. It also realized the importance of facilitating the transfer of technology from the industrially advanced countries of the world to the developing ones, and considered that close co-operation at both the governmental and non-governmental levels between and within the two groups of countries must be further promoted to speed up the process. In this connexion, the Conference noted with appreciation the offer of Singapore to serve as the host country for the following regional centres:

- (i) Industrial Design Centre.
- (ii) Food Technology Centre.
- (iii) Metal Trades Technology Centre.
- (iv) Fisheries Research Centre.
- (v) Merchant Marine Training Centre.

184. The Conference noted that the immediate need in countries of the region is for "adaptive research" to utilize already developed technology, and recognized the necessity of associating industrial research institutions in the countries closely with universities and institutions of advanced scientific learning on the one hand, and with user departments of governments, industrial firms, and industry financing banks on the other.

185. The Conference felt that one of the greatest needs in the manufacturing sector of countries in the ECAFE region is to produce goods which, while being saleable both in the local and export markets, are also suited to local manufacturing conditions as well as to the mentality, attitudes and skills of the local people, and considered that improving the standards of quality of locally manufactured products is one of the most effective means of increasing the demand for and exports of these products.

186. The Conference expressed the view that standardization is a vital regulatory instrument for

promoting the efficient use of material and manpower resources in industrial development and that it also facilitates trade in the domestic and world markets through the control of quality, dimensions, and other specifications of goods. Standardization is of practical importance to industrialization and its effectiveness will depend on the existence of a properly constituted and recognized national standards organization, without which the path of industrial growth will be harder and longer.

187. The Conference endorsed the view that the system of granting patents (a) encourages research and invention, (b) permits new inventions to be brought into commercial use in the larger national interest and (c) encourages investment.

188. It noted the non-availability of: (a) adequate technical and managerial personnel capable of working on patents, (b) an essential technological base and (c) adequate financial resources for investment. Owing to the last condition, many developing countries of the region have not been able to derive full advantage from the grant of patents, particularly that relating to foreign inventions.

189. The Conference noted the work already being done or to be done in this field by international bodies, including United Nations bodies, the Bureau of the International Union for the Protection of Industrial Property (BIRPI) and, in particular, the Asian Seminar on Industrial Property organized by the Bureau to take place in Colombo, Ceylon in February 1966.

190. The Conference therefore recommended countries of the region:

- (a) To review their existing patent laws with a view to removing such lacunae as may exist.
- (b) To introduce legislative measures to ensure that, as far as possible, a foreign patentee works his invention in the patent granting country instead of merely blocking the free use of his invention to the detriment of the national interest.
- (c) To encourage inventions by their nationals by establishing scientific laboratories and research institutions.
- (d) To promote technology further by developing experimental installations, pilot and prototype plants, etc. to try out new inventions and new processes.

191. The Conference also recommended that the developed countries encourage their patent owners to make available patent licenses and know-how to applicants from developing countries on liberal terms.

Industrial research

192. The Conference recommended:

- (a) That measures be taken to extend science teaching and experimentation in schools, and to improve standards of training and research in the universities and institutes

of technology; also that steps be taken to train scientific staff of higher qualifications by sending them to training courses in leading scientific centres in the developed countries.

- (b) That, in order to attract and keep scientists in research institutions, suitable measures be taken to assure their status, emoluments and service conditions.
- (c) That, while scientific and industrial research institutes should function as autonomous organizations, the closest possible association and participation by user departments, industries and planning authorities in the research programmes of industrial research and development institutes be assured.
- (d) That the closest possible association in teaching and research and the use of equipment be encouraged by the research institutes and the universities.
- (e) That industrial research institutes be provided with adequate arrangements for efficient documentation and with library services for the scientific personnel.

193. The Conference further recommended:

- (a) That, as a matter for regional and international co-operation, and in order to avoid waste of scarce resources on redundant research in different institutions and to stimulate exchanges of information and co-ordinate research activities, an Asian Council for Industrial Research and Technology be established as an organ of ECAFE, to be composed of heads of important research institutions in the countries of the region.
- (b) That, to enable the Council to act as a catalyst and to promote the most effective co-operation between the institutes, a new Industrial Research Office be established within the Industries Division of the ECAFE secretariat which should service the periodic meetings of the Council and stimulate the direct exchange of research programmes and projects between the co-operating institutes of the region.

Industrial design

194. The Conference recommended:

- (a) That countries of the region promote industrial design in their territories, taking note of the difference in the social and cultural background and the habits of the prospective users and consumers of their manufactured products; and encourage industrialists to take account of industrial design in their production and development plans.
- (b) That the ECAFE secretariat explore the possibility of establishing, with the support

of the United Nations Development Programme and, in conjunction with the Asian Productivity Organization, a regional centre for combined training and promotion in the field of industrial design, which would also serve as a pilot project for the development of special designs; or to consider expanding a national centre for regional use. This centre could also act as the focal point for:—

Regional promotion.

The establishment of extension services including workshop facilities and the services of resident design experts.

The establishment of regional training facilities.

The development of industrial design protection.

The establishment of regional seminars and product displays.

The establishment of "good design" awards and correct export standards.

The distribution of trade enquiries and technical information.

Organizing exhibition of industrial designs.

Improvement of export standards.

Standardization

195. The Conference recommended to the member countries of the ECAFE region:

- (a) That national standards bodies, if not already in existence, be established as soon as possible, adopting an organizational pattern best suited to each country which should be arrived at through intensive consultations among all organizations concerned.
- (b) That countries through their national standards bodies join the International Standardization Organization (ISO) and the International Electrotechnical Commission (IEC) and participate, to the extent possible, in the technical activities of these agencies.
- (c) That countries, when setting new standards, attempt to follow as far as possible the recognized international standards with minimum modifications to suit local conditions.
- (d) That countries with established standards bodies should assist others in setting up similar organizations by:
 1. making available facilities for training technicians in the methods of formulating standards;
 2. providing expert services on request to organize standards bodies or to undertake special assignments, such as steel

economy, or introduction of certification marks procedure, or quality control for export and preshipment inspection.

- (e) That countries which have introduced the system of certification marks consider, where possible, the question of mutual recognition of the marks for their larger benefit.
- (f) That countries take steps to organize consumer co-operative movements for the improvement of consumer goods by encouraging the adoption of appropriate standards.

196. The Conference further recommended that a regional standards committee be established and that it should be serviced by a standards section of the secretariat to enable it to promote standardization in the region. The section should maintain the closest possible co-operation with the existing standards institutes and agencies in the region and with the international ISO and IEC along the lines established in many years of existing world-wide co-operation.

Transfer of technology

197. The Conference supported the following recommendations of UNCTAD on transfer of technology, it being understood that these recommendations imply no change in the position taken or commitments entered into by Governments of ECAFE member countries at the United Nations Conference on Trade and Development.

- (a) Developed countries should encourage the holders of patented and non-patented technology to facilitate the transfer of licenses, know-how, technical documentation and new technology in general to developing countries, including the financing of the procurement of licenses and related technology on favourable terms (UNCTAD, A.IV.26).
- (b) Developing countries should undertake appropriate legislative and administrative measures in the field of industrial technology (UNCTAD, A.IV.26).
- (c) Competent international bodies, including United Nations bodies and the Bureau of the International Union for the Protection of Industrial Property, should explore possibilities for adaptation of legislation concerning the transfer of industrial technology to developing countries, including the possibility of concluding appropriate international agreements in this field (UNCTAD, A.IV.26).
- (d) Additional facilities for information on, and for the transfer of, technical documentation and know-how should be organized within the framework of the United Nations in consultation with the appropriate international organizations (UNCTAD, A.IV.26).

198. The Conference further recommended:

- (a) That the developing countries of the region exchange information, through close consultation, on the terms and conditions of joint venture and technical collaboration agreements concluded for industrial projects.
- (b) That the developing countries of the region examine carefully the recommendations contained in the reports of the ECAFE Expert Working Groups on Industrial Research and Design and on Industrial Standardization, and Marketing.

2. Strengthening of institutional arrangements

199. The Conference had before it seven documents relating to the subject: the secretariat paper entitled "Institutional Arrangements for Industrial Development" (E/CN.11/I&NR/Ind.Conf./L.7); the report of the Expert Working Group on Standardization, Patents and Marketing (Part III of I&NR/Ind.Conf./S.6); a document entitled "Industrial Development: Problems and Issues" (I&NR/Ind.Conf./1) prepared by the United Nations Centre for Industrial Development; and documents entitled "Industrialization and Employment" (E/CN.11/I&NR/Ind.Conf./L.9), "Industrialization and Labour Policy" (E/CN.11/I&NR/Ind.Conf./L.10), "Employment and the Choice of Technology" (E/CN.11/I&NR/Ind.Conf./L.16) and "Management Development" (E/CN.11/I&NR/Ind.Conf./L.17) contributed by the ILO.

Industrial planning and programming

200. The Conference noted that:

- (a) Several countries of the region have made considerable progress during recent years in the application of industrial planning and programming techniques to the preparation and implementation of their industrial development plans, and there has been a broad measure of agreement that industrial programming is an essential element in mobilizing resources for industrial development. However, in most developing countries, the industrial plans in their present forms are still confined merely to aggregation of projects. The lack of any real connexion between overall development plans and their industrial components, or between the industrial components themselves, seems to be a common weakness of procedures now in use.
- (b) In many countries, even the pre-investment investigations and the cost-and-benefit analysis of individual projects are inadequate. Another major deficiency is that there is often no established procedure for assessing, on a continuing and systematic basis, the progress of the national plans and

the implementation of the development projects.

- (c) Assessment of manpower resources and the characteristics of the labour force may be needed at the initial stages of industrial development planning in order not only to determine manpower requirements for the implementation of industrial development programmes but also to define the employment objectives which may be assigned to industrial development policies.

201. The Conference considered that:

- (a) Even at the early stage of economic planning, there is need to adopt a three-level approach:
 - (i) Aggregate economic analysis to provide a framework for planning in all sectors of the economy;
 - (ii) Sector analysis to form a basis for detailed studies to ensure the consistency of the final results;
 - (iii) Commodity and project analysis to facilitate the choice among alternative investment possibilities.

All these three levels or stages are intended to comprise a connected whole; they are interrelated at various points and one is used to revise another. Such a combination of detailed project analyses with more comprehensive sector and aggregate studies is needed in order to evaluate development projects in the light of the social objectives of the country.

- (b) The deficiency in industrial planning in many countries of the region is attributable to two major factors. First, most countries are continuing to experience a serious shortage of industrial economists, economic planners and specialists, this shortage being further aggravated by the demand for the same competence in the private sector and by international agencies which are usually capable of offering better terms and conditions of employment than those offered by the Governments. Secondly, there is a serious lack of the essential statistical, economic and engineering data needed for economic analysis and project appraisal.

202. Taking all these matters into consideration, the Conference recommended:

- (a) that developing countries should:
 - (i) At the initial stages of industrial development planning and programming include manpower planning in order to assist the public authorities which determine such plans and programmes to take into account the employment creation possibilities of alternative patterns of industrial development;

- (ii) Expand their training programmes for industrial economists, economic planners and specialists in this field, with the assistance of the developed countries, if needed;
 - (iii) Strengthen the staff and organization of the central planning agency;
 - (iv) Establish planning units in key individual ministries;
 - (v) Improve the collection and dissemination of economic and engineering data.
- (b) That developed countries should:
- (i) Facilitate the dissemination of economic and engineering data on various branches of industry to the developing countries;
 - (ii) Provide training facilities for planners and engineers from developing countries.
- (c) *Further action by United Nations/ECAFE*
- (a) That a seminar on industrial project evaluation on a regional basis be organized by the United Nations Centre for Industrial Development or its successor jointly with ECAFE, in order that there will be a cross-fertilization of ideas concerning the present practices used for systematic evaluation of industrial projects in the region and specific recommendations regarding proper techniques for industrial project evaluation be formulated;
 - (b) That the Asian Institute for Economic Development and Planning give special attention in its curricula to industrial planning and programming techniques for training officials from countries of the region;
 - (c) That the ECAFE secretariat, in collaboration with the governmental agencies and national institutions concerned, undertake a few comprehensive country case studies which would demonstrate in detail the actual application of the proposed procedures; this could perhaps best be done by combining the undertaking of such case studies with the provision to the countries concerned of advisory services in the actual formulation of their industrial plans;
 - (d) That the ECAFE secretariat intensify its efforts to collect and disseminate economic and engineering data which are essential for industrial planning in countries of the region.

Organization for industrial development

203. The Conference expressed the opinion that:

- (a) The success of the industrial development plans in the ECAFE countries will depend largely on their continuing efforts to improve their developmental and administrative machinery, which are required not only for the co-ordination and effective mobilization of capital and human resources for industrial activities, but also to ensure that the constantly changing need of industries is satisfied.
- (b) That, in many developing countries of the region, there are still serious bottlenecks which limit the successful prosecution of their industrialization programmes. These include shortages of trained personnel, a lack of co-ordination among various government departments concerned with industrial development, and the reluctance of the private sector to organize industry, trade or similar organizations to promote better relationships among themselves as well as with the government sectors.

204. Taking these matters into consideration, the Conference recommended that:

- (a) Close and effective co-ordination between public agencies concerned with industrial development should be achieved by creating co-ordinating committees or joint consultation bodies to pass judgment upon all policies issuing from these agencies.
- (b) For formulating industrial plans and policies, the manufacturers should be invited to give their views and advice. In other cases, special development councils or committees on various branches of industry, consisting of representatives from government and industries, could be formed to review the progress made and to advise on new development policies.
- (c) In-service or other methods of training for staff members of development agencies should be intensified.
- (d) The Asian Institute for Economic Development and Planning should undertake research study to find out whether any improvement on the present administrative machinery could be made in order to implement more effectively the industrial development plans in each member country of the region. It should also give special attention to the administrative machinery for industrial development in its curriculum for training officials from countries of the region.

Improvement of marketing facilities

205. The Conference expressed its appreciation of the report on marketing prepared by the Working Group of Experts on Standardization, Patents and Marketing (Part III, I&NR/Ind.Conf./S.6) and commended it to the Governments of the region and the agencies concerned for careful study and consideration.

206. The Conference noted that:

- (a) although marketing promotes trade and employment by co-ordinating production and distribution, it has not always received due recognition in the developing countries of the region;
- (b) there can be no industry without a market for its products and any market potential can be tapped only if the proper trade channels are created.

207. Taking these matters into consideration, the Conference recommended that the countries of the region:

- (a) Encourage the undertaking of market surveys for their products to assess the precise consumer demands and preferences within and outside their respective territories, and disseminate trade information through trade journals, etc.;
- (b) Introduce structural changes in sales channels, namely, transformation from traditional trading practices into a systematic marketing system involving the creation of service organizations and establishing brand images and accumulation of technical know-how on products and packaging;
- (c) Provide adequate facilities for the marketing of different types of products — transportation, warehousing, cold storage and transport, and financial credit facilities, etc.;
- (d) Establish appropriate agencies for quality control and preshipment inspection of different products, particularly those for export;
- (e) Arrange for adequate legal assistance to trading parties in settling disputes;
- (f) Organize appropriate publicity campaigns to promote sales.

Manpower development and employment

208. The Conference expressed its appreciation of the documentation on this subject provided by the International Labour Office.

209. The Conference noted that:

- (a) serious employment problems confront most countries of the region;
- (b) the lack of skilled manpower and its maldistribution are important limiting factors in the industrial development of the countries;
- (c) although many countries in the ECAFE region now have some programmes for manpower training and although there has been

substantial increase in the number of training institutions in those countries, the growth of their manufacturing industries has not yet created enough employment opportunities, with the result that employment opportunities in some countries are lagging behind the growth of labour force.

210. The Conference considered that industrialization could make a very significant contribution to the solution of problems of unemployment and underemployment not only by the additional jobs directly created by the setting up of specific industries but also by the indirect impact it exerts through the growth of ancillary industries and service facilities.

211. Taking all these matters into consideration, the Conference recommended:

- (a) That studies be undertaken on the relative advantages and disadvantages of technological alternatives in production so that those techniques of production which make an optimum use of labour and capital can be selected.
- (b) That similar approaches be adopted by neighbouring countries so that countries within the region may profit from one another's experience in manpower survey and planning and employment classification. However, cognizance should be taken of varying levels of economic development among countries in the region, as they affect, in particular, approaches to manpower development planning.
- (c) That to effect close co-ordination between economic planning and manpower development, Governments in the region organize manpower development authorities at the policy-determining level of government to plan and direct the implementation programmes for the more effective utilization of human resources, where such organizations do not already exist.
- (d) That the developing countries of the region adopt techniques of production which are capital-saving and labour-intensive in character, to the extent that this is technically sound and economically justifiable by appropriate incentives including fiscal measures.

Regional and international co-operation

- (e) That the countries of the region, with the help of the United Nations and its specialized agencies and through bilateral arrangements, exchange their experience in manpower planning.

Management development and productivity

212. The Conference expressed its appreciation of the documentation provided on this subject by the secretariat and the International Labour Office.

213. It noted that there is need for preliminary surveys in relation to the establishment of training courses for management, as the most suitable methods for promoting management development inevitably differ from industry to industry. A necessary first step in establishing an adequate management development programme is to undertake a survey of the major management needs of the majority of enterprises in each member country. Without such a survey there is a danger that training schemes for management will be inappropriate in relation to needs.

214. The Conference noted that an immediate need in the ECAFE region is for the establishment of management development and productivity promotion organizations in countries where these do not already exist. Where such organizations are already in existence, high priority should be given to considering the possible expansion of regular training courses to cover consultancy service training primarily designed for building up consulting firms or units to help provide managerial skill to industrial as well as commercial enterprises.

215. It noted that firm comparisons provide a useful management tool which enables individual firms to undertake their own efficiency campaigns after becoming aware, through comparison with others, of the organizational inefficiencies in certain areas.

216. Taking all these matters into consideration, the Conference recommended:

- (a) That institutions be established in countries where they do not already exist, preferably in the form of national management development and productivity centres, with active participation of employers and employees organizations.
- (b) That the curriculum of colleges and universities be expanded to include subjects pertinent to the development of management skills and industrial relations.
- (c) That educators be included in the organization of management development and productivity centres to provide the link between industry and education and to facilitate appropriate changes in the curricula of colleges and universities.
- (d) That assistance be extended by Governments to local management development and productivity organizations having limited resources but with the capacity to expand their programmes and services.

Regional and international co-operation

- (e) That the ECAFE secretariat, in collaboration with the ILO, the Asian Productivity Organization and Indo-Pacific Council of the International Organization for Scientific Management:

- (i) Explore the development of intra-regional training schemes for countries lacking resources to establish their own facilities for management development and increasing productivity;
- (ii) Arrange for countries with adequate training facilities to provide other countries with opportunities to participate in their training programmes.

3. Development of infrastructure

217. The Conference expressed appreciation of the report of the Preparatory Committee and the ECAFE secretariat on the development of infrastructure including industrial location and estates, energy resources, transport and shipping facilities. The Conference commended the sectoral reports to the Governments for careful study and consideration.

Industrial Location and Estates

218. The Conference stressed that site location and estates were important factors in industrial development.

219. The Conference emphasized that the selection of industries to be located in backward areas is a complicated one and that development of these areas is a slow process and cannot be brought about overnight. It cautioned against hasty location of industries purely for promoting regional development without assessment of comparative costs and their potential contribution to regional development.

220. The Conference noted:

- (a) That development of industries brings with it an exceedingly rapid rate of urbanization and creates mounting social, economic and physical problems in the swelling cities of Asia, affecting the steadily increasing number of urban dwellers.
- (b) That new industries generally tend to be located within, or in close proximity to, existing urban centres, unless deliberately channelled by authoritative or incentive measures to locations in small towns or newly established settlements.
- (c) That unplanned industrial location frequently leads to developments where either people are settled in new towns without provision being made simultaneously for an adequate economic base or industries are established in what is virtually a vacuum without proper housing and other social and physical facilities for their prospective employees.

221. In view of such problems the Conference recommended that, on request, ECAFE with the assistance of other agencies, aid the Governments in formulating and implementing their industrial location policies, and that a regional seminar on the choice of

industrial location be organized by the United Nations Centre for Industrial Development in co-operation with ECAFE as early as possible.

Energy Resources, Especially Electric Power

222. The Conference drew attention to the very close relationship between energy consumption and economic development, since energy resources provide a form of infrastructure essential to industrial growth. In this sector the electric supply industry is perhaps the most important element, though its net contribution to the gross national product may be small in relation to the capital employed.

223. The Conference expressed the view:

- (a) That some energy-intensive industries are dependent on the supply of electric power at low rates.
- (b) That, on the other hand, owing to the large capital outlay involved in this industry, efforts should be made as far as possible to keep the rates high enough to be able partially to finance developments from internal resources.

224. The Conference noted that:

- (a) Despite the significant additions to the installed generating capacity in most countries of the region, the demand for power continues to exceed the available supply.
- (b) Nearly 70 to 80 per cent of the electricity supply in the region is accounted for by energy consumed by industries.
- (c) It is imperative that countries of the region give serious consideration to (i) systematic and comprehensive energy resource surveys and (ii) forward estimates of energy requirements, so as to be able to harness the natural resources on a planned and rational basis.
- (d) The modern integrated system of power development has proved to be the most economic and efficient means of developing and utilizing the natural energy sources.
- (e) The countries of the region should as far as possible take full advantage of the modern scientific and technological developments which have significantly helped the developed countries in improving the technical efficiency and productivity of the electric supply industry, thereby reducing costs to the consumer.
- (f) Proper organizational arrangements and specialized management procedures are essential for the satisfactory and successful growth of the electricity supply industry.
- (g) The electricity supply industry is highly capital intensive and normally absorbs about 10 per cent or more of the total capital outlay on development projects.

225. In view of all these considerations and findings, the Conference recommended the following action programmes:

(a) *Developing countries of the region*

- (i) Countries of the region which have not yet done so should organize comprehensive energy resource surveys (as well as forward projections of their energy requirements) so as to be able to plan the harnessing of the natural energy resources in the most economic and efficient manner. Such surveys would help to fix priorities for the development of power projects — location, type, capacity, etc.
- (ii) The countries should adopt integrated power system development so that the available energy resources in a given region are fully and most economically utilized to meet the existing and potential demand for power on an area-wide basis at the lowest possible cost.
- (iii) In order to reduce costs, improve operational efficiency and thereby bring down the cost of electricity supply, the countries of the region should introduce appropriate measures for rationalization of generation and supply of electricity.
- (iv) The countries should explore all avenues of regional co-operation. There are undoubtedly possibilities for the joint development of electric power projects and exchange of power across national boundaries. The need for joint power projects and/or international exchanges of electric power arises from the fact that the distribution of natural power resources is not uniform in all countries and that, often, the resources located in one country could be utilized with mutual advantage in a neighbouring country either on a long or short term basis.
- (v) Although most of the countries of the region have to import their electrical plant and equipment at present, it is desirable that every country should endeavour to manufacture and supply as much of the required equipment as possible. It should be possible for many of them to develop the manufacture of light electrical equipment.

(b) *United Nations and international agencies*

- (i) The ECAFE secretariat, with the support of the United Nations Special

- Fund or BTAO where necessary, should assist the countries of the region, on request, to carry out comprehensive energy surveys including hydrological surveys. The assistance could include expert services in providing information on methodology or, where necessary, actual undertaking of the surveys and supply of equipment.
- (ii) The ECAFE secretariat should, with the assistance of the United Nations Special Fund or BTAO, promote the establishment of national or regional training centres for the planning, design, construction, operation and maintenance of power systems.
 - (iii) The ECAFE secretariat should assist the countries of the region in promoting and introducing appropriate standardization and rationalization measures for the construction and operation of electric power systems so as to improve the performance, efficiency and productivity of the industry.
 - (iv) The ECAFE secretariat should explore, in consultation with the countries concerned, the possibilities of developing joint power projects and exchanging power supply across national boundaries in their mutual interest. In particular, the possibilities of working out project proposals jointly with two or more countries to utilize the vast amount of natural gases available in Iran should be pursued.
 - (v) In the absence of regional specialized organizations [such as International Union of Producers and Distributors of Electrical Energy (UNIPEDA) and Union for Co-ordinating Production and Distribution of Electricity (UCPTE) through which the countries of Europe are able to co-operate and assist one another in the field of electric power development], the ECAFE secretariat should take the responsibility of acting as an informa-

tion and service centre and a clearing house in regard to all matters connected with the electricity supply industry.

- (vi) The ECAFE secretariat should amplify the scope of the Electric Power Bulletin which is now being issued on an annual basis. As the value of a statistical publication depends mainly on its timely issue, the secretariat should endeavour to reduce the long time lag involved at present.

Transport, including Shipping

226. The Conference recognized that transport, including shipping, is part of the strategic infrastructure in a developing economy and that the development of transport not only adds to the national income as an economic activity but also makes an indirect contribution by stimulating the development of industries which supply materials and services to the transport industry. It also recognized that transport development is absolutely essential for the exploitation of additional resources by making them accessible in order to lead to the establishment or expansion of related industries. It also recognized that transport development is absolutely essential for the exploitation of additional resources by making them accessible in order to lead to the establishment or expansion of related industries.

227. The Conference noted that the cost of transport has an important and often critical bearing on the cost of production of industrialized goods and the prices realized from primary products. Moreover, in some cases, unfavourable transport costs may nullify the advantages of increased productivity in agricultural and natural resources development.

228. The Conference therefore recommended that the ECAFE secretariat, on request, undertake, on a commodity and industry basis, studies of the implications of transport costs in regard to:

- (a) Location of industries and exploitation of natural resources,
- (b) Proposals for replacement of exports of primary commodities by manufactures and semi-manufactures,
- (c) International division of labour by exchange of components and semi-assembled units between developed and developing countries for assembly and finishing before supply to markets.

IV. ACTION BY THE CONFERENCE ON THE FINDINGS AND RECOMMENDATIONS OF THE FOURTH COMMITTEE

229. The Fourth Committee was established by the Conference at its plenary session on 8 December 1965 and elected the following officials: Mr. S. J. Walpita (Ceylon) Chairman; Mr. N. Kawada (Japan) and Mr. Mohammad Ali Jafari (Iran) Rapporteurs.

230. The Conference entrusted agenda item VI, Machinery for Implementation, to the Fourth Committee for detailed study.

231. The Committee had before it the following background documents dealing with the subject under discussion:

E/CN.11/I&NR/Ind.Conf./L.15

Report of the Preparatory Meeting of Senior Officials for the Asian Conference on Industrialization.

E/CN.11/I&NR/Ind.Conf./L18.

Machinery for implementation of an accelerated programme for development of industries and natural resources in the ECAFE Region, prepared by the Secretariat.

232. The Committee held three meetings from 14 to 15 December 1965. During the course of its deliberations, the Committee felt that the proposal made by the Preparatory Meeting of Senior Officials for the establishment of an Asian Industrial Development Council would require some further clarifications. It accordingly appointed a Working Group, consisting of representatives from India, Iran, Japan, Pakistan, the Philippines and Thailand, to define more specifically the objectives, functions and scope of the proposed Council. The Working Group met on 15 December 1965 under the Chairmanship of the representative of the Philippines and reported its findings to the Committee on the same day.

233. The findings and recommendations of the Committee, as finally approved by the Conference at its plenary session, are outlined below.

(a) The need for action

234. The Conference agreed that the pressing economic problems facing the developing countries of the region call for, among other things, a crash programme to accelerate the development of their industrial sectors. The recommendations emerging from the deliberations of the Conference as well as those stressed by various ECAFE Working Groups of Experts were all designed to achieve this basic objective. The early implementation of these recom-

mendations will require intensified effort at the country level and also concerted action among member countries. The Conference considered that if satisfactory progress were achieved within the shortest possible time, effective institutional arrangements would be needed to follow up and to assist the implementation of these recommendations, especially those projects requiring close regional or sub-regional co-operation.

(b) Existing arrangements

235. In considering the necessary institutional arrangements and the machinery for implementation, the Conference noted with gratification the timely announcement of the United Nations Commissioner for Industrial Development that the Second Committee of the United Nations General Assembly had just unanimously approved the establishment of a United Nations Organization for Industrial Development (UNOID). This new organization should greatly facilitate the mobilization of additional financial and technical resources, including voluntary contributions for expanding the activities of the United Nations in assisting developing countries in their industrial development. In this connexion, the Conference also noted with interest the proposed provisions of special industrial services by the United Nations as described in the report submitted by the Secretary-General to the General Assembly at its twentieth session (A/6070) and expressed its satisfaction that the Government of the Netherlands had already announced in the General Assembly its contributions for financing such services.

236. The Conference noted that, at the regional level, there is the ECAFE Committee on Industry and Natural Resources which has so far provided a regional forum for the exchange of information on development policy and measures for promoting the development of industries and natural resources in ECAFE countries. This Committee is served by the Industries Division of the ECAFE secretariat which is at present staffed by ten regular officers.

237. The Conference considered that the existing machinery is not adequate either qualitatively and quantitatively. Qualitatively, it does not provide the maximum involvement of the Governments themselves in the formulation of especially regional or sub-regional industrial projects, nor is it flexible enough to permit effective mobilization of resources and assistance from all appropriate organizations and agencies. Quantitatively, having regard to the magnitude of the task ahead as specifically recommended by the various ECAFE Working Groups of Experts, the Conference felt that the ten regular officers in the Industries Division of the ECAFE secretariat will not possibly

be able to cope with the increasing workload effectively. There is, therefore, an urgent need for strengthening the existing machinery as well as for making appropriate new institutional arrangements to meet the deficiencies.

(c) **Essential considerations**

238. The Conference observed that any proposals for strengthening the existing regional machinery and for establishing new machinery to follow up the work of this Conference and to assist countries in the implementation of the various recommendations made by the ECAFE Working Groups of Experts must take into account the following essential considerations:

- (a) It should ensure the maximum involvement of the Governments themselves, especially in bi-national or multilateral industrial projects — otherwise, the proposals and plans will not materialize into concrete projects.
- (b) It should serve as the "catalyst agent" to identify the problems and suggest measures for implementation with special reference to those projects which require the close co-operation of two or more countries.
- (c) It should facilitate the mobilization and the channelling of resources and assistance from appropriate organizations and agencies to developing countries in this region, so as to ensure early realization of promising projects and effective utilization of all available resources.
- (d) It should ensure continuity of effort and close follow-up and evaluation of the progress of the projects.
- (e) It should have a technical staff commensurate with the task to be performed.
- (f) It should not duplicate any existing regional institution.

239. The Conference also stressed that the intensification of development effort would rest primarily with the developing countries themselves, as the drive, initiative and aspiration must come from the grass roots. The operation of any United Nations programme should take into account the special nature of the development problems in each country, sub-region or region. Thus, in the interest of efficiency and effectiveness, there should be an appropriate degree of decentralization in the United Nations assistance programme and together with close collaboration between the newly established United Nations Organization for Industrial Development and ECAFE.

(d) **Recommendations**

240. Keeping all these objectives in view and having regard to the present deficiencies of the existing regional machinery, the Conference recommended:

(1) *Asian Conference on Industrialization as a regular organ of the Commission*

A. That the Conference on Asian Industrialization be established as a regular organ of the United Nations Economic Commission for Asia and the Far East. The Conference would provide opportunities for the Governments of the member countries both in and outside the region to acquaint themselves with all aspects of industrial development in the region, so that the experience and knowledge gained can be used with benefit to identify problems and lay down broad lines of strategy for solving them. It should also review the work of, and give necessary directives to, the proposed Asian Industrial Development Council as outlined in paragraph (II) below. The Conference should be held regularly at three-year intervals. The time and meeting place and the necessary preparatory work should be left to the discretion of the Executive Secretary of ECAFE who would work out the details in consultation with the Governments of member countries and also with UNOID.

(II) *Establishment of an Asian Industrial Development Council*

B. That, as the Conference would meet only at three-year intervals, the ECAFE be requested to establish an Asian Industrial Development Council based on the following guide-lines:

Objectives and Scope

- (1) To keep in continuous review industrial development plans, programmes and policies adopted in the regional member and associate member countries with a view to achieving progressive harmonization of industrial development plans.
- (2) To identify projects where the co-operation of two or more countries is required for the pooling of markets to achieve economies of scale, international division of labour and for the better utilization of raw materials; and to recommend ways and means for the investigation and implementation of such projects.
- (3) To assist, at the request of the countries concerned, in the preparation of industrial feasibility studies and other programmes for the investigation and imple-

mentation of projects, utilizing for the purpose assistance from such organizations as the United Nations Development Programme (UNDP), the United Nations Organization for Industrial Development (UNOID), the United Nations Conference on Trade and Development (UNCTAD), other United Nations specialized agencies, and co-operating countries. In the process of doing so, detailed study of particular projects worthy of more intensive consideration should be carried out by appropriate *ad hoc* machinery to be established by countries concerned.

- (4) On request, to assist with, and advise on, the obtaining and utilizing of financial and technical assistance for the implementation of projects, including preparation of applications for loans from multilateral, regional and other sources.
- (5) To co-ordinate, evaluate and suggest to the member countries, UNOID, UNCTAD, UNDP, etc., follow up action in regard to the findings of the various panels and boards, etc., on the various industries and industrial sectors to be established as recommended by the Asian Conference on Industrialization, including suggestions for the setting up of pilot and experimental plants, research and training centres, etc.
- (6) On request, to assist in co-ordinating, to the best regional advantage, the provision of assistance to the regional member countries from appropriate international and other bodies and co-operating countries, in the form of—
 - (a) high level experts to advise about specific questions related to the preparation and implementation of industrial projects;
 - (b) assistance in the different stages of implementation of new manufacturing projects, particularly in the pre-operational stage;
 - (c) consultancy services for the development of new projects;
 - (d) in-plant training of technicians;
 - (e) commercial scale run-offs utilizing indigenous raw materials which should be

processed by means of relatively new and sophisticated techniques; and

- (f) all other forms of industrial advisory service.
- (7) To render, on request, such other assistance within its terms of reference as may be required by the member and associate member countries of the region in the implementation of their industrial development plans and programmes.
- (8) Within its terms of reference, to stimulate action by appropriate governmental and private agencies leading to the establishment of suitable industries.
- (9) To bring to the notice of future periodic meetings of the Asian Conference on Industrialization such matters as it considers appropriate.

COMPOSITION

Membership of the Council should be open to all regional member and associate member countries of the ECAFE. The Council should meet at least once a year and should elect its own officers to serve for a one-year term. It should report to the Conference and to the Commission.

SECRETARIAT

The Council should be serviced by Industries Division of the ECAFE secretariat.

BUDGET

As the ECAFE secretariat would be the secretariat of the Council, no financial implications are involved except those required for strengthening the secretariat (which would be implemented within the framework of the financial possibilities of the United Nations Organization). The Council members attending the meetings would do so at the expense of the Governments concerned.

- C. That the Executive Secretary present to the twentysecond session of the United Nations Economic Commission for Asia and the Far East full details regarding the operational procedures and arrangements required to give effect to the above recommendations.

Several representatives stated that the recommendations concerning the establishment of the Asian Industrial

Development Council would serve at this stage as the guidelines for the consideration of the Commission at its coming twentysecond session. Their Governments may wish to comment on these recommendations further during the session.

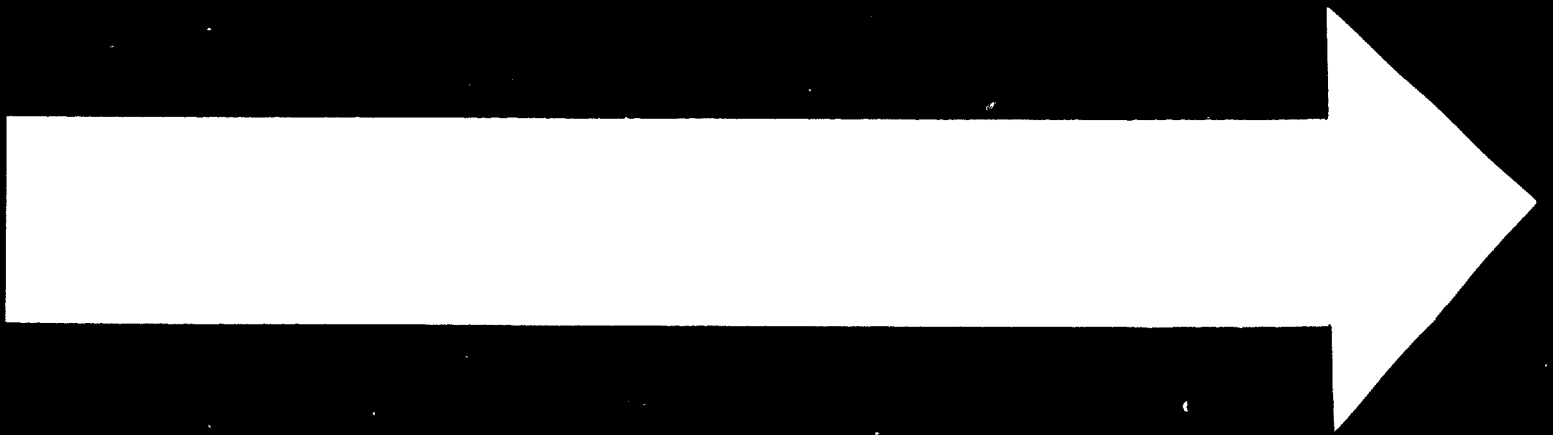
(III) *Formation of industrial development corporations*

D. That the proposal of the Preparatory Meeting of Senior Officials for the establishment of Industrial Development Corporations on a bi-national or sub-regional basis could best be dealt with by the Asian Industrial Development Council, as and when the formulation of some of the proposed joint industrial projects reaches an advanced stage. The need for such development corporations

would probably arise in connexion with the implementation of these projects and the mobilization of the necessary financial resources.

(VI) *Strengthening the Industries Division of ECAFE*

E. That appropriate strengthening of the Industries Division of the ECAFE secretariat be undertaken as soon as possible, the actual requirements being determined by the Executive Secretary. The United Nations Development Programme authorities should be urged to assist the ECAFE secretariat with its work in relation to the proposed Asian Industrial Development Council, as well as to the implementation of these recommendations of the Conference which are directed specifically to the secretariat.

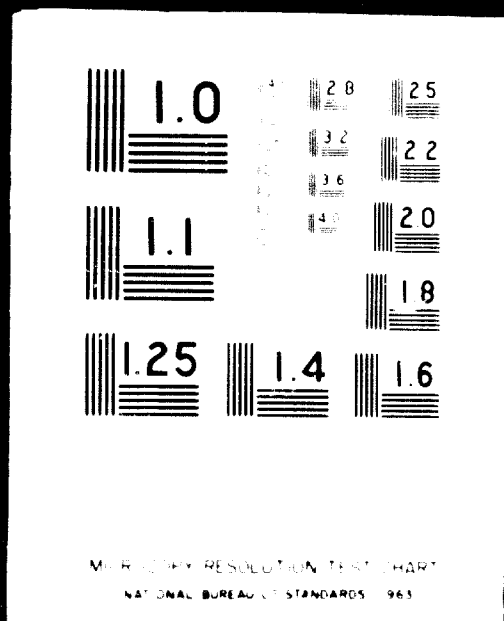


20. 9. 71

2 OF 2

DO

2022



V. SUGGESTED ITEMS FOR INCLUSION IN THE AGENDA OF THE INTERNATIONAL SYMPOSIUM ON INDUSTRIAL DEVELOPMENT IN 1967

241. The Conference had before it the text of an Aide Memoire transmitted to Governments of member countries of the United Nations by the Centre for Industrial Development, containing a tentative list of topics and plan for organizing an International Symposium on Industrial Development in developing countries. (Document I and NR/Ind. Conf./2).

242. The Conference noted with satisfaction that the Secretary-General of the United Nations had been requested by the Economic and Social Council to take all the necessary steps, including the preparation of appropriate studies, to assure the holding of the International Symposium in early 1967. The Conference considered that the holding of the Symposium would be a significant event for the countries of the region. It would provide an important opportunity for them individually and collectively, through the transmittal of the proceedings of the current Asian Conference, to present to a world-wide forum a review of the industrial situation and needs of the developing countries of the region. The developing countries of the region would also stand to gain a better perspective of their own industrial situation in comparison with that of developing countries in other regions. The ECAFE countries would gain a better knowledge of the way in which particular problems of industrialization had been met in other developing countries. For example, it was felt that valuable information could be provided through the Symposium on the experience of regional co-operation for industrial development elsewhere.

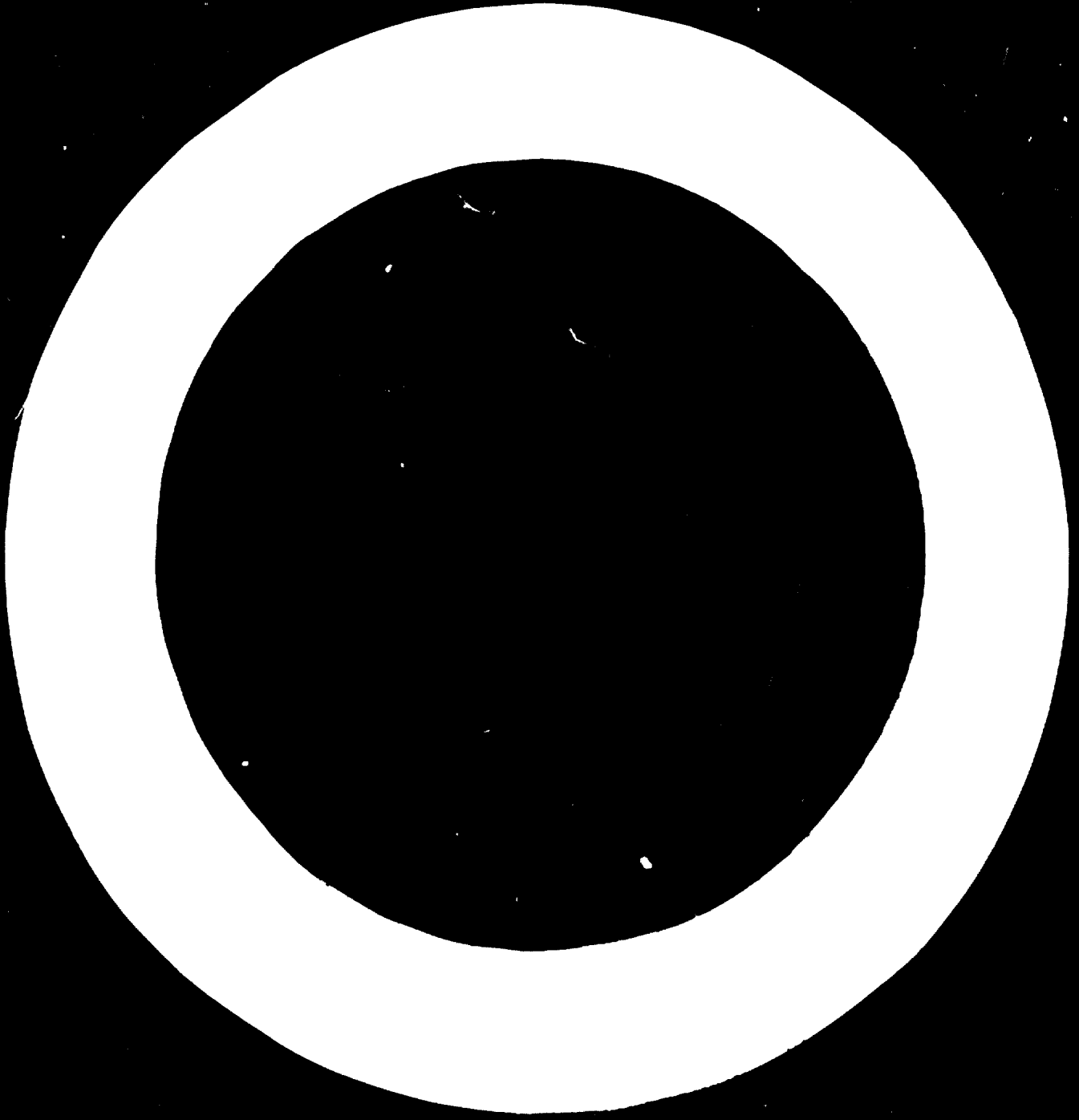
243. The presentation of the position of countries in the ECAFE region should contribute to a clarification of the international aspects of industrial development, since the International Symposium would provide a meeting ground for the industrial countries and the developing countries. Questions of the transfer of technology, the international flow of capital, training and research facilities in the industrial countries that might be used for the benefit of the developing countries, the role of consulting services, and the adequacy of programme of technical co-operation could be effectively discussed.

244. In the course of the discussion in the Conference, a number of observations and suggestions were made concerning the agenda and preparations for the International Symposium. The view was expressed that the Asian Industrial Development Council, when established, would be in a position to facilitate preparations for the Symposium. It was also felt that a *World Industrial Survey*, as planned to be submitted to the Symposium by the Centre for Industrial Development, would be of value to the countries of the region. Among specific topics suggested for consideration were the following:

- (i) The establishment of common investment promotion centres to assist developing countries;
- (ii) The problems associated with the obtaining of technological information by developing countries, including the cost of such technology;
- (iii) The role of private foreign investment in industrial development, and the income derived from such investments;
- (iv) The role of the state enterprises in industrialization.

245. Regarding preparation for the holding of the International Symposium, the Conference was gratified to note that the General Assembly of the United Nations had authorized special funds for the preparation of documents in the budget of the United Nations for 1966. The Conference was informed that the Centre for Industrial Development, in co-operation with the regional commissions and the specialized agencies, had initiated a programme of studies for the Symposium.

246. The Conference was also gratified to note that the Centre for Industrial Development had taken steps to facilitate the participation by Governments in the International Symposium by circulating a tentative list of topics and inviting all countries, including industrial countries, which had not yet had the occasion to participate fully in the preparatory work for the International Symposium to establish national machinery to ensure their effective participations. Such preparations, it was considered, could proceed in anticipation of a final decision to be taken later on the precise agenda of the symposium.



THIRD PART: RESOLUTIONS

Document No. ACI.1/1 — Resolution on Asian Industrialization

Document No. ACI.1/2 — Resolution on Establishing an International Symposium on Industrial Development.

Resolution on Asian Industrialization

The Asian Conference on Industrialization held at Manila from 6 December 1965 to 20 December 1965,

Deeply concerned that, despite the strenuous efforts made, the share of the developing member countries of the region in the world's industrial output is less than 2 per cent and both the *per capita* industrial output and the *per capita* income of the region are the lowest in the world;

Recognizing the need for accelerated industrial development to halt and reverse the growing disparity in industrial output as well as in industrial consumption between the region's developing countries and the developed countries of the world;

Taking note of the hope expressed in Resolution on Dynamic Asian Economic Co-operation adopted by the Second Asian Ministerial Conference that the First Asian Conference on Industrialization would formulate specific proposals and appropriate action programmes for accelerating industrialization in the region generally and for developing joint industrial ventures, multi-lateral industrial projects, including complementarity agreements, and other joint efforts for the survey and development of resources;

Noting that this Conference, taking place at the mid-point of the United Nations Development Decade, in accordance with the United Nations General Assembly Resolution No. 1940 (XVIII), to precede the proposed World Symposium on Industrialization in 1967, also takes place at a most opportune time in relation to the decisions to establish an Asian Development Bank, and for the creation of a United Nations Organization for Industrial Development, both of which new bodies may be expected to contribute substantially to the industrial development of the region;

Expresses satisfaction that the comprehensive studies and documents prepared for this Conference are of high technical quality and will serve as useful

guides for the developing countries in their industrial development;

Recommends the following action programme for adoption and execution by the governments and agencies concerned:

Invites the regional countries to (a) attempt harmonization of their national development plans (b) in co-operation among themselves and, in appropriate cases, with countries outside the region, to develop key industries and industrial sectors and industrial infra-structure in accordance with the recommendations of the Conference.

Agrees that, to help the countries of the region in performing these tasks, there is need not only for strengthening the existing machinery but also for creation of new machinery and accordingly:

Requests the United Nations Economic Commission for Asia and the Far East: (a) to make the Asian Conference on Industrialization a permanent organ of the United Nations Economic Commission for Asia and the Far East which will meet, with the joint preparation of ECAFE and UNOïD, at intervals of three years to review and advise on the problems and progress of industrialization in the region; and (b) to set up an Asian Industrial Development Council based on the following guide lines:

Objectives and Scope

1. To keep in continuous review industrial development plans, programmes and policies adopted in the regional member and associate member countries with a view to achieving progressive harmonization of industrial development plans.

2. To identify projects where the co-operation of two or more countries is required for the pooling of markets to achieve economies of scale, international division of labour and for the better utilization of raw materials; and to recommend ways and means for the investigation and implementation of such projects.

3. To assist, at the request of the countries concerned in the preparation of industrial feasibility studies and other programmes for the investigation and implementation of projects, utilizing for the purpose assistance from such organization as the United Nations Development Programme (UNDP), the United Nations Organization for Industrial Development (UNOïD), the United Nations Conference on Trade and Development (UNCTAD), other United

Nations specialized agencies, and co-operating countries. In the process of doing so, detailed study of particular projects worthy of more intensive consideration should be carried out by appropriate *ad hoc* machinery to be established by countries concerned.

4. On request, to assist with, and advise on the, obtaining and utilizing of financial and technical assistance for the implementation of projects, including preparation of applications for loans from multilateral, regional and other sources.

5. To co-ordinate, evaluate and suggest to the member countries, UNCTAD, UNDP, etc., follow up action in regard to the findings of the various panels and boards etc., on the various industries and industrial sectors to be established as recommended by the Asian Conference on Industrialization, including suggestions for the setting up of pilot and experimental plants, research and training centres, etc.

6. On request to assist in co-ordinating to the best regional advantage, the provision of assistance to the regional member countries from appropriate international and other bodies and co-operating countries, in the form of—

- (a) high level experts to advise about specific questions related to the preparation and implementation of industrial projects.
- (b) assistance in the different stages of implementation of new manufacturing projects, particularly in the pre-operational stage.
- (c) consultancy services for the development of new projects.
- (d) in-plant training of technicians.
- (e) commercial scale run-offs utilizing indigenous raw materials which should be processed by means of relatively new and sophisticated techniques and
- (f) all other forms of industrial advisory service.

7. To render, on request, such other assistance within its terms of reference as may be required by the member and associate member countries of the region in the implementation of their industrial development plans and programmes.

8. To stimulate within its means of reference action by appropriate governmental and private agencies leading to the establishment of suitable industries.

9. To bring to the notice of future periodic meetings of the Asian Conference on Industrialization such matters as it considers appropriate.

COMPOSITION

Membership of the Council should be open to all regional member and associate member countries of the Commission. The Council shall meet at least once a year and should elect its own officers to serve for a one year term. It should report to the Conference and to the Commission.

SECRETARIAT

The Council should be serviced by the Industries Division of the ECAFE secretariat. For this purpose, appropriate strengthening of that Division should be undertaken as soon as possible, the actual requirements being determined by the Executive Secretary. The United Nations Development Programme authorities should be urged to assist the ECAFE secretariat with its work in relation to the proposed Industrial Development Council.

BUDGET

As the ECAFE secretariat would be the secretariat of the Council, no financial implications are involved except those required for strengthening the secretariat (which would be implemented within the framework of the financial possibilities of the United Nations Organization). The Council members attending the meetings would do so at the expense of the Governments concerned.

Requests the Executive Secretary to present to the twentysecond session of the United Nations Economic Commission for Asian and the Far East full details regarding the operational procedures and arrangements required to give effect to the resolution.

Further requests the Executive Secretary to take appropriate steps to strengthen to ECAFE secretariat in order to enable it to undertake effectively the tasks to be performed for achieving rapid industrial growth of the developing countries of the region.

(Resolution unanimously adopted at the plenary session on 17 December 1965)

Resolution on Establishing an International Symposium on Industrial Development

The Asian Conference on Industrialization

Noting with satisfaction that the Economic and Social Council in its resolution 1082-B-XXXIX has requested the Secretary-General "to take all necessary steps to assure the holding of an International Symposium on Industrial Development in developing countries early in 1967";

Noting that the Secretary-General, through the Centre for Industrial Development, has circulated to Governments an Aide Memoire (reproduced in document I&NR/Ind. Conf./2) containing a tentative list of topics and plan for holding the International Symposium;

Considering the recommendations for national, regional and international action made by the First Asian Conference on Industrialization;

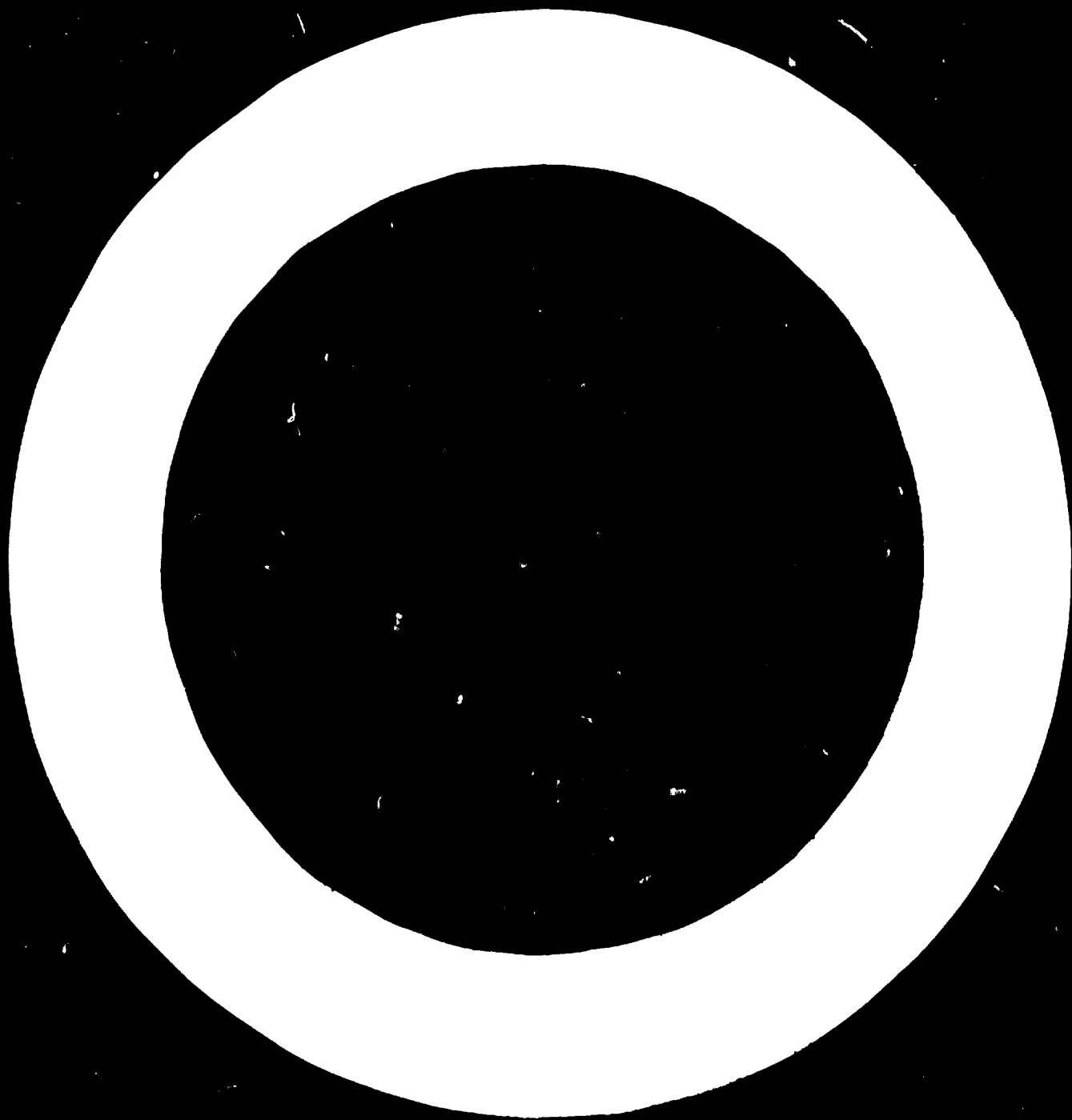
Recommends that the developing countries in the ECAFE region initiate action, including the organization where necessary of representative national

machinery, for their participation in the International Symposium, taking into account the proceedings and recommendations of the Asian Conference on Industrialization;

Requests the Executive Secretary: (i) to draw to the attention of the United Nations Committee for Industrial Development the proceedings of the Asian Conference so that the Committee may take these into account in recommending to the Economic and Social Council a plan for the International Symposium; (ii) to co-operate with the Centre for Industrial Development in the preparation of the International

Symposium; (iii) in consultation with governments and the Centre for Industrial Development, to inform the International Symposium about developments in the field of industrialization in the countries of the region; and (iv) to bring to the notice of the Economic Commission for Asia and the Far East the proceedings of this Conference in regard to the items to be included in the agenda of the International Symposium.

(Resolution unanimously adopted at the plenary session on 17 December (1965))



FOURTH PART: POLICY STATEMENTS

A. OPENING ADDRESSES

Inaugural address by His Excellency the President of the Republic of the Philippines

It was just a week ago in this hall when I spoke at the opening of the historic 2nd ECAFE Ministerial Conference which concluded the other day, culminating in a highly significant event not only in the life of my country but probably in the lives of the countries of the ECAFE region, the signing of the charter of the Asian Development Bank by the authorized representatives of the governments of countries in the region.

The holding of the 2nd Asian Ministerial Conference in our country was indeed an important event in the life of the Filipino nation for in this momentous occasion was born a prestigious financial association of determined peoples of Asia. I believe that the existence of this regional bank in Asia will, more than ever before, generate in no small measure, enthusiasm among ECAFE member countries, particularly the Asian countries, to accelerate economic activities for development.

Today, we are here gathered again to open a new forum in which another vital common problem of the countries of the ECAFE region will be discussed, threshed out and probably solved. We are hopeful that this industrialization conference which you are about to commence will fruitfully review the over-all progress and problems of industrialization in this region and formulate effective solutions and measures to the existing problems within the context of regional economic co-operation.

We are all aware that the ECAFE region which has the most population of all regions in the world is greatly concerned with various economic problems particularly, the problem of supplying the population's basic needs. Statistics show that in many countries of the region, production is not adequate to meet the increasing needs of the people. The rates of economic growth of many if not most of the developing countries of the region, while already relatively low, are still not being sustained. However, our hopes to attain a high level of subsistence should not be dampened by the present situation. With the facilities now improving especially the establishment of the new financial institution, the Asian Development Bank, we have reason to enthusiastically hope for a brighter future.

The Philippine government like other ECAFE member governments is very much concerned with industrialization. While my country has been basically agricultural, the increasing needs of the economy have urged us to accelerate the development of the industrial sector side by side with agriculture and other sectors of the economy in order to achieve a balanced economic growth. In fact, my administration's Five-Year Socio-Economic Development Program which started in Fiscal Year 1962 and running through Fiscal Year 1967 has set as its major goal the attainment of a balanced agro-industrial economy.

Poor countries have long understood the advantage of being rich. Now, if I interpret recent events correctly, small nations — small in purchasing power if not in population — have begun to realize that the easiest way to be rich is to be big.

Like other small and poor countries represented in this Conference, we have faith that the Philippines is *potentially* rich. In our forests and waters and under our mountains lies in abundance the stuff of which industrial wealth is made; the number of hands that is available to work this latent wealth is embarrassingly large and grows every year; we have even succeeded in coaxing, both from the idle funds of our few wealthy countrymen and from the generosity of more fortunate nations, the capital investments that is necessary to tap our natural resources.

But in our efforts to industrialize, we have generally considered that the markets for our manufactured products end at our national frontiers. We have now reached the point where this artificial limitation has become not only wasteful of present capacity but also a limitation to future opportunity.

Domestic manufacturers are displacing consumer imports at a satisfactory rate, with the aid of various incentives. This is the first and the easiest step toward industrialization since both the required markets and the required investment are fairly small. But the displacement has gone so far that the more forward-looking of our industrialists have begun to search elsewhere for business opportunities; namely, toward the manufacture of intermediate and basic industrial products. Here they are likely to find the going much harder. Investment requirements are so large, and economical production volumes so high, that they are unlikely to be supported by the markets of a single country unless they are heavily subsidized by the government.

This predominant view of industrialization as the means to resolve the future of Asia underscores the need for a concerted and united drive by our countries toward a common and mutually beneficial goal. The campaign to intensify and enhance industrialization requires no less from us than open-hearted reciprocity and co-operation, diligence and cohesion in working together, and as much unselfishness as is possible in sharing with one another. With these qualities strengthening the foundation of this regional movement, there is justification of optimism as to the ultimate outcome of our endeavor for dynamic progress through industrialization for our respective countries and for Asia as a whole.

These considerations generate a sense of expectancy in regard to the mission that this conference will undertake, in regard to the sound and positive steps which are certain to evolve from your deliberations, to the end that we can proceed with immediacy to the broadening and upgrading of the necessary phases of industrial development in this part of the world.

The Philippines, in common with the other industrializing countries in the ECAFE region, has long felt the desirability of regional co-operation to develop large markets; and we have welcomed the opportunity of being host to two regional conferences on this subject. We have recently received gratifying proof of both your common belief in the benefits of regional co-operation and your confidence in the ability of our country to play a role in it through the choice of the Philippines as the site of the Asian Development Bank. We are deeply grateful for this honor and assure you that our people and their leaders accept fully the responsibilities which it entails and will endeavor always to be equal to them.

I shall end here since our position in the subject of this conference will be set forth in the statement of our delegation. Let me end by wishing you a fruitful discussion and assuring you that the recommendations of this conference will receive my country's full support and co-operation.

**Opening statement by U Nyun, Executive Secretary
of the United Nations Economic Commission
for Asia and the Far East**

On behalf of the Secretary-General of the United Nations and on my own behalf, I have great pleasure in welcoming you all to the Asian Conference on Industrialization. First and foremost, I wish to express our profound gratitude to the Government of the Republic of the Philippines for its generous co-operation and for the excellent facilities provided for convening this very important Conference. I wish also to express our heartfelt thanks and deep appreciation to His Excellency President Diosdado Macapagal for his kindness in finding time in the midst of his heavy duties of state to be with us today to deliver his warm words of welcome and inspiring address.

The Asian Conference on Industrialization is undoubtedly one of the most important of the meetings convened by the United Nations Economic Commission for Asia and the Far East in the field of industrialization, and will constitute a milestone in its annals. It is being convened in accordance with resolution 1940 passed by the United Nations General Assembly at its eighteenth session in which the convening of an International Symposium on Industrialization, preceded as appropriate, by regional and sub-regional symposia, was recommended. The International Symposium on Industrialization to be held early in 1967 will form part of the series of meetings on development convened by the United Nations during the Development Decade, such as the United Nations Conference on the Application of Science and Technology for the Benefit of the Less-Developed Areas held in 1963 and the United Nations Conference on Trade and Development in 1964. The International Symposium and the regional meetings which are preceding it have been organized as a co-operative venture between the Committee for Industrial Development and the regional economic commissions, and I am happy to record with appreciation the full support of the Centre for Industrial Development in this joint project.

At the same time, the Asian Conference on Industrialization is specially designed to fit into the strategy of development that is being evolved in the region. In this, the United Nations Development Decade, I have endeavoured to push forward in the ECAFE region such measures as hold out the greatest promise for rapid economic development not only of the individual developing countries, but also of the region as a whole. It is for this reason that I convened the historic First Asian Ministerial Conference in 1963 and the Second Asian Ministerial Conference on Regional Co-operation about a week ago in this historic city of Manila. Among the specific measures laid down by these Conferences I am glad to say that the most important one has been realized. I refer to the Asian Development Bank, the agreement for establishing which was adopted by the Conference of Plenipotentiaries just two days ago here in Manila. This Bank is to be established with a capital of US\$1,000 million and is expected to contribute to accelerating the economic development of developing countries in the Asian region of ECAFE. Increased investment in industrial development will be one of the prime objectives of the Bank.

Before going on to discuss the manner in which the work of this Conference is expected to support and be complementary to the promotion of industrial investment by the Asian Development Bank, I should like us to look briefly at the picture of industrialization in this region. Though the developing member countries of the ECAFE contain nearly one-third of the world's population, their share of the world's industrial output is less than 2 per cent. As a matter of fact,

the region's *per capita* industrial output is the lowest in the world, lower than the average of Latin America or the developing region of Africa. This low level of industrialization is evidenced by the insignificant proportion of the national product constituted by the industrial component in the developing countries of the region in contrast to the developed countries of the world. And this is the position despite the strenuous efforts towards achieving industrialization which have been made in recent years. As industrialization is the key to economic progress, the urgency of the need to increase the level of industrialization in the countries of the region in the shortest possible time will well be appreciated. The galloping increase in population in many of the developing countries of the ECAFE region which are already facing difficult employment situations firmly underscores this need.

The under-development of the greater part of the region is also highlighted by the disparity in the *per capita* industrial output and the *per capita* consumption of key industrial commodities between the region's developing and developed countries. In 1961-63, at 1960 prices, the *per capita* industrial output of Cambodia was US\$7.7 and of Ceylon US\$7, compared to US\$163 for Japan and US\$424 for Australia. In 1963, Burma's consumption of energy *per capita* in terms of kg of coal equivalent was 59 kg, Cambodia's 48 kg and Ceylon's 114 kg compared to 1,532 kg for Japan, 2,069 kg for New Zealand and 4,213 kg for Australia. In 1963, Ceylon consumed only 8.9 kg of steel *per capita* and 28.6 kg of cement against 389 kg of steel and 276 kg of cement consumed by Australia.

The dependence of the developing countries of the region on the industrially advanced countries is also highlighted by the fact that, in 1962, they imported US\$2,132 million worth of machinery and equipment, constituting 23.5 per cent of their total imports. Expressed as a percentage of gross domestic product in the manufacturing sector, in 1961-62 the imports of Burma were 48 per cent, of Ceylon 81 per cent, and of Thailand 34 per cent of GDP. Only three developing countries in the region have industrial sectors which have contributed more than 15 per cent per annum of the GNP.

To achieve the planned growth rate of 5 per cent per annum of the GNP it has been estimated that the industrial output during the Development Decade should increase at the rate of 13 per cent per annum. Only one developing country of this region is realizing this aim.

The only redeeming features in this generally gloomy picture are that it is not necessary for countries now taking their first steps towards industrialization to repeat the mistakes of the already developed countries or undergo the same difficulties that they experienced in the preceding centuries. Also, the fund of good-will and ready co-operation already demon-

strated by the more advanced countries in such matters as in the formation of the Asian Development Bank allow one to hope that the developing countries will be able to look to the developed countries for all the various kinds of assistance needed for industrialization. The mobilization of this good-will, the abundant resources offered and their efficient application will be the most important subjects to be considered by this Conference; it is because of this that this meeting, following immediately upon the Second Asian Ministerial Conference on Regional Co-operation and the Conference of Plenipotentiaries on the Asian Development Bank, is extremely timely and opportune.

In order that the Conference may be productive of practical decisions, I convened, in September this year, a Preparatory Meeting of Senior Officials, to prepare for it by bringing out the major problems facing the industrial development of the countries of the region and by formulating specific recommendations for the Conference's consideration. The Preparatory Meeting considered in detail the vast amount of documentation that had been prepared for you, the country studies, sectoral studies, secretariat papers, etc., and the proposals for the Conference. Their report is before you and contains many important recommendations, of a technical as well as policy nature, which will require your close attention and meaningful deliberations. It is important that the Conference arrive at practical decisions and suggestions for action by the developing countries, by the developed countries and by the United Nations, its specialized agencies and by everyone of good-will who is willing to assist the developing countries.

I am sure that the measures recommended by the Preparatory Meeting, in the areas of regional co-operation and on the basis of the important recommendations of the United Nations Conference on Science and Technology and the UNCTAD, will receive your close attention. However, while all these matters are very important, in my opinion, the recommendations of the Preparatory Meeting in regard to the machinery for implementing an accelerated programme of development are perhaps the most important. These recommendations are: the continuance of this Conference as a permanent organ of the Commission; the establishment of new organization, the Asian Industrial Development Council, with its own secretariat, to meet the need for an Executive Agency to undertake, rather than merely advise on, programmes; and, finally the strengthening of the secretariat. It is not necessary for me to repeat the arguments that impelled the Preparatory Meeting to make these recommendations. They are fully set forth in their report. I should, however, like to make two points to be borne in mind in considering them. My first point is that, the secretariat as it is constituted, cannot enter the field of execution; it cannot invite or receive contributions. Nevertheless, the generous contributions which are offered from all sides have to be mobilized and

utilized to meet the immense needs for which they are intended. Therefore a new organ, with a measure of autonomy, but integrated with the secretariat and receiving the full support and close involvement of the regional countries, is essential. My second point is that the cost of such an organization would be very small in comparison with the advantages to be realized; the proposals cannot be termed overambitious when viewed in relation to the immensity of the tasks. The need for an expansion of the United Nations system to deal with problems of industrialization has been clearly recognized by the General Assembly and is now being acted upon particularly in the form of a significant increase in the resources of the Centre for Industrial Development. If the enlarged system is to work efficiently, there will be a need for a parallel growth in regional machinery. This means an additional need for an increased capacity in ECAFE to deal with industrialization. The proposals placed before you are modest and we may be sure that resources will become available for establishing whatever machinery you may decide on. This is evident from the repeated emphasis which the United Nations General Assembly and the Economic and Social Council have placed on the need for accelerating industrial development, and from the discussions that have been taking place in both bodies on the need for creating a new organ of the United Nations solely for industrial development. The General Assembly presently is actively considering important proposals on this matter, and I am particularly pleased to welcome to this Conference Mr. I. H. Abdel-Rahman, the Commissioner for Industrial Development who will address the Conference this afternoon and bring us information on this vital project.

The matters on which the International Symposium on Industrialization should take positions, expressed either in the form of resolutions or of recommendations incorporated in its final acts, will also have to be considered by you. However, as the 1967 International Symposium is still over a year away, the action to be taken in this region on the lines of the recommendation of the Preparatory Meeting cannot wait until then, but should be put in train immediately. You may accordingly wish to lay down a programme for action in the coming year in order to realize such measures as the establishment of the Asian Conference, of the Asian Industrial Development Council and of such industrial development corporations as may be required.

In conclusion, I am very glad to note that the distinguished participants in this Conference combine high official status with a high degree of technical skill and experience. The tasks before you are very important and onerous. But I am confident that, with your long experience and clear understanding of the economic and industrial problems of the ECAFE region, your deliberations and consultations will be crowned with success and will result in concrete

measures for effecting rapid industrial development in countries of Asia and the Far East.

I wish the Conference a very successful session.

Opening address by His Excellency Mr. Cornelio Balmaceda, Chairman of the Asian Conference on Industrialization

I am deeply grateful for the honor you have conferred on my country in electing me chairman of this first Regional Conference on Industrialization in the ECAFE area.

We have just witnessed a milestone in Asian Economic Co-operation with the adoption here in Manila two days ago of the Charter of the Asian Development Bank by the ministers and plenipotentiaries of the member and non-member countries of the Economic Commission for Asia and the Far East.

It is therefore most opportune and significant that the Asian Conference on Industrialization is immediately convened in Manila after the approval of the Asian Development Bank which will have its headquarters in the Philippines. In this conference, we are given the opportunity to consider the wide range and depth of industrial development in Asia and examine current deficiencies and means of overcoming them by regional action. This Conference forms part of a series of regional meetings being convened by the United Nations to be followed by the International Symposium on Industrialization that will be held in early 1967.

The developing member countries of the ECAFE region have embarked on a program of industrialization which forms an important segment of their social and economic development. More than one third of the world's population live in our countries of the ECAFE region, but our people in this vast region of Asia share less than 2 per cent of the world's industrial output. Not only do they earn the lowest per capita income in the world, but they also have the greatest number of unemployed and the highest rate of population growth, factors which have contributed to their very low level of economic development.

Moreover, the bulk of their exports consists of primary products which have commanded lower values of the world's markets than the manufactures that they import. This disequilibrium in the pattern of their trade has impeded the implementation of their industrial development programs. It is therefore an obvious necessity that the industrial sector of their economy must be expanded to narrow the gap of per capita income between the industrialized countries and the under-developed countries of ECAFE.

We have before us a well prepared and comprehensive document in which measures are recommended for our consideration to implement the various proposals for industrial expansion. The document is the product of a thorough study by ECAFE experts. Each of the proposals is an important factor affecting our respective economic development pro-

grams, requiring positive and effective action on our part in harmony with the different degrees of economic progress attained by the individual countries.

Any expansion in our industrial output and consequently in the earnings of such a vast number of people living in our region, will bring about a tremendous added purchasing power for the consumption of the articles in international trade. The highly advanced countries would therefore benefit from the industrialization of the less developed countries in our region and would find it to their interest to assist the developing countries in the implementation of their industrial projects.

I wish particularly to invite your attention to the proposed measures on the development of key industries and to point out the necessity of harmonizing the national development plans to the ECAFE's objective of regional economic co-operation. Intensified studies and investigations should be undertaken at once to explore the feasibility and practicability of setting up industrial projects on a regional or sub-regional basis under market-sharing and joint venture arrangements.

Industrialized countries in and outside the region should not view with concern nor consider it a threat to their established heavy industries or any other types of industries already developed by them the determination of the less developed countries in Asia to industrialize because industrialization is the key to raising the standards of living and purchasing power of the vast population of our region that will enable them to absorb much more than what they are now selling to this region.

We cannot too strongly emphasize the importance of expanding the exports of manufactures and semi-manufactures of the developing countries to the advanced countries as a means of accelerating the industrialization of the countries of Asia and the Far East.

The countries of the ECAFE, with one or two exceptions, remain still largely agricultural, exporting raw materials and primary products to the advanced industrialized countries. Their terms of trade during the last decade have aggravated their balance of payments difficulties. It is in the interest of the industrialized countries to liberalize their tariffs and admit on better terms our exports of primary commodities in order that the developing countries can have the foreign exchange that they urgently need to buy equipment, machinery, and other capital goods from the industrialized countries themselves.

With the excellent performance so far demonstrated by member countries of ECAFE toward regional economic co-operation, we can look forward with optimism and confidence for a fruitful result of our Conference on these vital problems affecting the very structure of our national economies.

My fellow delegates, let us proceed with our tasks in the same spirit and co-operation that have

characterized our past deliberations and endeavor to find common grounds for the solutions of our individual and collective problems of industrialization.

**Statement by Mr. I. H. Abdel-Rahman,
Commissioner for Industrial Development at
Asian Conference on Industrialization**

Your Excellencies, Ladies and Gentlemen:

1. It was almost two years ago that the General Assembly of the United Nations adopted a resolution recommending the holding of a world-wide International Symposium on Industrial Development for which the foundation was to be built upon a group of regional meetings to be conducted by the developing countries themselves. I recall with pleasure that it was in fact the representative of Thailand who introduced this idea to the Second Committee of the 18th Session of the General Assembly of the United Nations in 1963. I also recall that the idea received a warm response when it was presented to the ECAFE Committee on Industry and Natural Resources which met in Bangkok in December 1963. ECAFE was the first Regional Commission to support the idea.

2. I take particular satisfaction in the convening of this Conference because it represents the first of the regional meetings which are to culminate in the holding of the International Symposium early in 1967, and also because it has been the occasion of close co-operation between the Centre for Industrial Development and the Secretariat of ECAFE. The present Conference in Manila will be followed in January by a similar meeting for African countries and in March by a symposium on the industrial development of Latin America. Also, a symposium on the industrial development of the Arab States of the Middle East will be held early in March at the Invitation of the Government of Kuwait.

3. I feel that a particular word of congratulations is due to the ECAFE for the energy and skill with which they have prepared this meeting, and similarly to the Philippines for its hospitality.

4. Thus the countries of the ECAFE region are participating in a process which has two aspects. They are examining their own situation and problems as a part of the process of formulating their own national policies and devising methods of regional co-operation for accelerating their industrialization. At the same time they are preparing to join with their fellow developing countries in other regions and with the industrial countries in what may be described as a confrontation and exchange of views, with particular emphasis on the international aspects of industrial development. This procedure means a consideration of the practical ways and means by which the flow of capital, skills, enterprise and technology to the industrial sector of the developing countries can be speeded up; it also means a consideration of the ways and means by which the export of manufactures from the developing countries may be expanded; and, finally, it

means an examination of the ways in which the United Nations system of agencies (including that of the regional economic commissions) can assist in accelerating the industrialization of the developing countries.

5. As regards national action and regional co-operation in the ECAFE region, the documentation before this conference is itself a most encouraging indication of the usefulness of the regional meetings as a preliminary step to the International Symposium. In this regard, I am impressed with the prospect that the further development of various forms of co-operation within the ECAFE region promises to be of particular value in the field of industry. No doubt one reason for this is the fact that the region contains within it countries whose relatively advanced stage of industrialization should permit them to make a significant contribution to the development of the other countries of the region.

6. I should like to turn briefly now to the relation between the present Conference and the broader framework of the international symposium and of United Nations efforts in the field of industrialization in general.

7. The concluding item of your agenda concerns the International Symposium on Industrial Development. The proceedings of your Conference will in themselves constitute a significant body of material which will be referred to the attention of the International Symposium. The many excellent reports on their industrial situation submitted by participating countries will be of value in the preparation of a *World Industrial Survey*, to be prepared by the Centre for Industrial Development, the first issue of which is planned to be submitted to the International Symposium. The possibility of periodic revision of country reports of this nature deserves serious consideration since this might serve the purpose, among others, of affording guidance in formulating programmes of technical co-operation, as well as being a useful background for the study of specific industrial projects and policies.

8. Another matter which requires the attention of the Conference is the question of the agenda and plan of organization of the International Symposium. You have before you an indication of a tentative plan in the form of an Aide Memoire (I&NR/IND.-CONF./L.13) which has been circulated to all governments by the Centre for Industrial Development. I look forward to your observations on this matter in order to take them into account when presenting to the next session of the Committee for Industrial Development in April of 1966 a plan for the International Symposium.

9. A major object of the regional and international symposia is to provide a basis for an expansion and improvement in the quality of the technical co-operation services provided to the developing countries in the field of industrialization by

the United Nations system as well as through other channels. I very much hope that your discussion of key industrial sectors and of particular industrial institutions and needs in such fields as training of manpower industrial research, promotion of new industrial projects, industrial standards, and the like will lead to new initiatives in this regard upon which the Centre for Industrial Development can act, drawing upon the resources of the newly reorganized United Nations Development Programme.

10. In conclusion, I should like to make a few comments on the question of United Nations machinery for the promotion of industrial development. The numerous draft recommendations placed before you in the report of the Preparatory Meeting of Senior Officials held in Bangkok last September has naturally led to the thought that new and expanded machinery within the region is required for the carrying out of new and enlarged programmes of industrial promotion and technical assistance. A number of interesting suggestions for regional machinery have been put forward which will no doubt be considered with due attention and care by the appropriate United Nations bodies.

11. The General Assembly of the United Nations at its current session is devoting earnest attention to providing further means of action for speeding up the process of industrialization. All of the proposals before the General Assembly have in common the object of increasing the flow of resources devoted to operational activities. There is agreement on the provision of additional resources to the Centre for Industrial Development as a means of accomplishing this. The further question of the most appropriate form of United Nations machinery for carrying out industrial development activities still remains under consideration, the major alternatives being a specialized agency or the reorganization of the Centre for Industrial Development so as to increase the range of services which it can provide. I hope before the end of this conference to be able to report to you on the outcome of these deliberations.

12. Whatever conclusion may be reached by the General Assembly on these matters, I very much hope that from the present conference and the other meetings of a similar nature there will result constructive ideas on the expansion of operational activities including closer co-operation between the Centre for Industrial Development and the regional commissions. The governments of countries which are in a position to supply capital and a variety of technical services of value for the industrialization of the developing countries have displayed a willingness to channel an increasing amount of such resources and services through United Nations machinery. This willingness should be a challenge to the Centre for Industrial Development, the regional commissions and the developing countries themselves to formulate programmes to utilize such resources. If the present

Conference provides an impetus in this direction, it will have well served the countries of this region and amply justified the efforts of the participating countries and the United Nations that have been devoted to it.

B. STATEMENTS OF DELEGATIONS OF MEMBER AND ASSOCIATE MEMBER COUNTRIES OF THE ECAFE REGION

Australia

Australia's industrial development policy is outlined in some detail in the Country Study on Australia prepared for the Asian Conference on Industrialization. As the study points out, the Australian economy is basically a free enterprise one in which the Federal Government attempts by means of its overall banking, taxation, tariff and related policies to establish a climate conducive to growth.

At the same time, it should be noted that Australia is a Federation of six sovereign States united under the Commonwealth Constitution. The responsibilities of the Federal Government are defined in, and limited by, the Constitution, and do not include direct responsibility for industrialization. The States are responsible for economic activities within their own boundaries, except to the extent that there might be a conflict with activities conducted by the Commonwealth under powers specifically granted to it under the Constitution. Specifically, each State is basically responsible for industrialization within its own boundaries.

With regard to action taken to facilitate regional co-operation, agreement has been reached between New Zealand and Australia on the details of a free trade arrangement which is to come into force on 1st January, 1966.

The new arrangement is expected to facilitate and expand trade between the two countries, to the advantage of both, and to contribute to an improvement in the balance of trade. It will provide the framework within which closer co-operation will provide a positive incentive to stimulate development of individual industries in each country.

Some industries, both primary and secondary, could not be exposed to duty-free competition from the other country at this stage, however. In fact, even although the agreement will aim eventually at including substantially all of the trade between Australia and New Zealand, it is probable that some items will always have to be excluded from it.

Care has been taken to provide for fair conditions of trade between the two countries and there are adequate safeguards to provide for the establishment and growth of industries and to protect industries from disruption. A reasonable transition period for the reduction of duties has also been allowed.

Both Australia and New Zealand are large international traders. Particular consideration has been given, therefore, to the interest of third countries in

selecting commodities for initial inclusion in the free trade arrangements so as to avoid any undue disruption in the trade of their other trading partners.

The immediate results of this far-reaching arrangement are unlikely to be dramatic. But in the long term its results will be of real significance to the welfare, development and growth of both Australia and New Zealand. It is possible too that the arrangement may serve as a model for other countries in the ECAFE region and that it may prepare the way for similar bilateral agreements which will help to enlarge and develop trade within the whole area.

Australia has considered ways and means, appropriate to its own needs and policies, of ensuring greater Australian participation in the industrial development programmes of less developed countries. On the investment side it was found that quite naturally that many Australian companies were hesitant in their approach to investment overseas where, to them, there were new and unfamiliar risks of a political nature. Although nobody can blame them for this attitude, it was apparent to the Australian Government that this was not in the best interest either from a national or international point of view. It was therefore Australia's objective to overcome this hesitancy by re-assuring and in fact guaranteeing Australian investors against these unknown risks. To achieve this Australia introduced legislation to offer investment insurance cover against the main categories of political risk. This cover is offered without the necessity of bilateral investment agreements; in fact it is open to any country which the Australian investor chooses to invest in.

The Government intends to administer these investment guarantee arrangements in such a way as to encourage Australian investors to associate with investors in the overseas country in joint rather than wholly Australian-owned ventures. Whenever appropriate, for example, there will be a preferential or lower premium rate for investment in joint ventures. Here again, the Australian Government is acknowledging that it should encourage a type of investment which most countries, including ourselves, prefer to see. To put it in more general terms, Australia will be encouraging investments which recognize the objectives of both countries in the belief that in the long run these will be the most successful ones.

Australia's programme for encouraging Australian firms to participate in the industrialization programmes of developing countries is complementary to these new insurance arrangements.

Its aim has been to build an atmosphere of "overseas investment" thinking amongst appropriate Australian firms. Australian Trade Commissioners in developing countries were therefore instructed some time ago (in May, 1965) to give close personal attention to all inquiries received about possible joint ventures. Those in South-East and South-West Asia were asked to give them top priority.

Australia, of course, is a comparative newcomer to joint ventures — a form of economic activity in which more highly-developed countries have engaged for many years. Nevertheless, recent investigations have shown that Australian companies are already participating in a surprisingly large number of enterprises of this kind in developing countries throughout the world. They vary from simple licensing arrangements to ventures in which Australian capital and know-how are important features.

Over the past year or so the Australian Government has devoted considerable effort and imagination to devise policies which will provide positive and meaningful encouragement to the economic growth of ECAFE countries. This has not been easy for Australia found itself constrained in many instances by international commitments and implications which limited the scope for action.

However, action has now been taken on Australia's own initiative to provide positive assistance and encouragement to less developed countries. This has been done in international forums such as the GATT by making every possible effort to meet and protect the interest of those countries heavily dependent on the export of primary products. In the Kennedy Round, for example, it had indicated that it is prepared to make substantial and meaningful concessions on manufactured goods if a satisfactory solution can be found for trade in primary commodities. In this way Australia is negotiating for concessions applicable to all those countries heavily dependent on the export of primary products, which in most cases includes all the developing countries.

In addition to this the Australian Government has made a careful study to see what could be done, consistent with Australia's own needs, to afford real and practical help to developing countries to increase their exports of manufactures. It concluded that despite many practical difficulties preferential trading arrangements designed to assist the developing countries could be devised and should be introduced.

Australia gave full support to the general arguments advanced by the developing countries at last year's United Nations Conference on Trade and Development to obtain arrangements that would help them stand on their own feet, in particular their need for access on reasonable terms to external markets, especially the volume markets of the major industrial nations for exports of their new manufacturing industries. Being ourselves comparatively new exporters of manufactures we are only too well aware of the kind of obstacles which must be overcome in achieving adequate and predictable returns from such exports on world markets. The fact that Australia has progressed somewhat further along the road of development and has already achieved a high standard of living has not destroyed our understanding of the problems which beset the developing countries. The Australian Government therefore made a careful study of what could be done, consistent with our own

position, to afford real and practical help to these countries in their effort to expand export earnings. It concluded that despite many practical difficulties, preferential trading arrangements should be introduced.

Accordingly, the Australian Government announced in May of this year that it had decided to make provision in the Australian Customs Tariff for preferential duties on selected imports from developing countries. Generally speaking, this means that for a wide range of products of particular export interest to developing countries, imports into Australia from those countries will bear substantially lower rates of duty than are payable on corresponding products from developed countries.

The Australian Government sees these new preferences as a means of helping to offset the competitive disadvantages faced by the new industries of the developing countries and of putting them in a better position to compete with major industrial countries for a greater share of Australia's import trade. We are now seeking the approval of the GATT to enable them to be put into effect. Australia does not assert that these measures will solve all the trading problems of the developing countries or even that they will go a long way towards solving them. Nevertheless Australia is the first country in the world to take action of this kind, and we sincerely believe that our initiative represents a major innovation in overseas trade relations, particularly for the developing countries in the ECAFE region.

More recently, the Australian Government has taken a further step in helping to expand the trade of developing countries. On 23rd September, 1965, it announced a decision to remove the present tariffs on a wide range of handicraft products imported from such countries.

This concession, which had been sought by India, Pakistan, the Philippines and other developing countries, as a measure of assistance to their traditional industries, is complementary to the Government's earlier decision outlined above to seek GATT approval to allow entry of selected manufactured products from less-developed countries at reduced preferential tariffs.

Under the Colombo Plan Australia also provides assistance to the developing countries of Asia in the field of industrialization. This assistance takes the form of training in Australia, the supply of technical equipment and the provision of expert services.

Brunei

The state of Brunei comprises an area of 2,226 square miles containing a population of about 100,000. According to the 1960 census of population the economically active portion of the population from the age of 15 and over amounted to 55 per cent of the population in that age group. Of this amount 35.1 per cent were engaged in agriculture, forestry and fishing and in total they produced

only 4.7 per cent of the value of output comprising the gross national product. By contrast the petroleum extraction industry with only 14.3 per cent of the working population produced 80.3 per cent of the gross national product. The share of the gross national product contributed by manufacturing amounted to only 1.2 per cent. These figures indicate the dominant role of oil and gas production in the economy of Brunei.

In its desire to lessen dependence on petroleum production as the mainstay of its economy Brunei, as one means of diversification, is looking towards the establishment of such industries as its available natural resources and the advantages of its geographical position could economically justify. This is evidenced in the expressed objectives, targets and projects listed in the National Development Plan 1962-1966. At the very top of the list of objectives is the aim to diversify the economy so that it will not be dependent upon one industry such as oil. Classified under the heading of manufacturing are the following approved targets:

- (1) To formulate government policies to induce private enterprise to undertake industrial ventures either privately or jointly with Government, or with enterprises from abroad.
- (2) To study further the possibilities of establishing industries based on —
 - (a) petroleum and natural gas, such as chemical fertilizers, plastics and petrochemicals;
 - (b) industries based on the utilization of substantial deposits of high grade silica sands, such as glass manufacture;
 - (c) industries based on forestry, such as pulp and paper, veneers and building materials;
 - (d) industries based on fisheries and marine life such as the production of fish meal and fertilizers from waste products of fishing industry, preserving fish and other food products;
 - (e) industries based on agricultural raw materials, such as sago and tapioca for starches;
 - (f) industries such as cement which would utilize natural gas as fuel;
 - (g) ceramic industries based on available clay, such as the production of bricks, tiles and related products;
 - (h) and handicraft industries utilizing the skills of craftsmen in silver and other metals, woods and textiles.

In this connexion my delegation wishes to acknowledge ECAFE's help in having made available to Brunei a team of experts to appraise the potential for the utilization of Brunei's natural gas resources as a basis for diverse industrial projects. The appraisal

was made by the ECAFE study group in August 1964. Their report was completed in September 1964. As a result possible ways and means are being considered for implementing the recommendations and suggestions made. Investigation is under way to establish with interested foreign investors joint ventures based on the recommended utilization of natural gas. Some of the possible joint ventures as suggested by the ECAFE study groups are:

- Alumina reduction and aluminium ingot plant
- Caustic Soda plant
- Petroleum Coke plant
- Fertilizer plant
- Mono-Sodium glutamate plant
- Cement plant and
- Glass manufacturing plant (based on abundant high grade silica sand).

The Government of Brunei is cognizant of the need for providing the required "infrastructure" of basic facilities needed for industrial and economic expansion. It is well known that expansion of investment in productive industrial activity is dependent upon the existence of the very basic facilities such as adequate transportation and communications, port facilities, good and sufficient roads, improved waterways, abundant and cheap power and water supplies, an adequate amount of trained workers in various skill and a population that is not hampered by a lack of education, poor health, and inadequate sanitation. It is for this reason that the major outlay of investment in the National Development Plan is devoted to improvement of the "infrastructure". Thus aside from development expenditures on health, education, and other "social overhead", a fairly substantial amount involves transportation, power and water supplies. The project to construct Brunei's first deep-sea port about 17 miles from the present river port of Brunei town is now in the hands of a consulting engineering firm and funds have been budgeted for the scheme. The port will be connected by good modern roads with Brunei Town (the Capital of the State) Tutong, Seria (the area of the oil and gas fields) and Kuala Belait.

In addition to the existing roads and those being constructed, a new road development was approved by the Government in various parts of the State. These roads will comprise an integrated system that will also connect with the new deep-sea port. A consulting engineering firm has already been appointed to undertake the required investigation, design and supervision of construction. When completed, Brunei will have an excellent road system interconnected with a good modern deep-sea port.

At present, electric power generated from natural gas is available only in Kuala Belait and Seria. However, when the government's electric power development scheme is completed in early 1966, the government will be generating electricity from natural gas

in the Seria oilfield and will transmit electric power by means of a 66 kV line across entire State with step-ups and step-downs as required to supply also Brunei town and Tutong, as well as the villages between the major towns of the State. Additional supplies of electric power can be made available as required by the installation of additional generating units.

As already stated my Government has as one of its targets in the National Development Plan 1962-1966 the formulation of policies to induce private enterprise to undertake industrial ventures either privately or jointly with Government, or with enterprises from abroad. Though there is no specific investment law or pioneer status enactment, there is provision for tax concession for special cases in the Income Tax Enactment No. 10 of 1955. However, in addition the Government has created a Development Investment Promotion Board with the responsibility and authority *inter alia* to—

- (1) promote the development of the agricultural, fisheries, forestry, industrial, commercial and other economic potentials of the State of Brunei, and to encourage private participation in investing in the private sector by means of incentives, the granting of privileges and benefits to pioneer activities, which, in the opinion of the Board, are necessary and beneficial to Brunei's economy and are in the national interest; and
- (2) determine the eligibility for incentives, benefits and privileges of pioneer activities in the fields of manufacturing, processing, mining, agriculture, fishing, animal husbandry, forestry, transportation, heavy engineering and ship building, provision for promotion of tourism, such as construction and operation of hotels, and other activities to be determined by the Board.

There is no delineation by law of fields of industrial activity reserved for the public and private sectors nor is there any differentiation made by law between domestic and overseas investors.

There are no specific laws which reserve certain industries for the private sector. There is no area of industrial activity closed to overseas investors. There is no intention to nationalize any private foreign or domestic enterprise. There are no regulations affecting the import of technical know-how. Royalties are paid on extraction of natural resources such as minerals, oil and gas, and forest products.

At present any prospective foreign or domestic investor who wishes to establish a new industry may apply to the State Secretary, who is the Chairman of the Development Investment Promotion Board, for consideration of any requested incentives, benefits or privileges such as exemption from customs duties and taxes and other inducements.

Though there has been no specific enactment to encourage joint ventures, the Government of Brunei

has expressed itself as favouring suitable joint ventures in the fulfilment of its national development plan. It recognizes the need to provide means for encouraging joint ventures between domestic and overseas entrepreneurs. So far such joint enterprises have established a shipbuilding industry to construct lighters, coastal vessels and barges in Brunei and a clay brick and tile industry and a wood processing industry. Discussions have been held with other overseas firms on liquification of natural gas, the utilization of natural gas for chemical fertilizers and the high grade silica sands for glass manufacturing and other purposes.

In considering Brunei's potential for industrialization we want to mention two limiting factors and indicate briefly how we think they can be met. The first is the existence of a small internal domestic market due to the small size of the population even though the per capita income is above the average for the region. The second is the lack of technical know-how and adequate supply of manpower, particularly skilled, technical and professional personnel. These two hampering obstacles we believe can be met in part by establishment of joint-venture industries based on Brunei's available resources such as petroleum, natural gas, silica sands, forestry, agriculture and fisheries; industries which will have to be capital-intensive and export-oriented; industries that could take advantage of a good geographical position in southeast Asia, a stable Government, a sound currency, no personal income tax, a very modest corporate income tax and a favourable climate for private enterprise. In part also the limiting factors can be overcome by the removal of restrictions and barriers to trade through sub-regional, intra-regional and inter-regional co-operation and the rational harmonization of industrial development plans at least on a sub-regional basis. Brunei would also look for external assistance in helping to solve the shortage of technical skills. Our needs are technical assistance rather than economic and financial aid. We hope that through participation by foreign private enterprise in joint ventures, facilities will be made available to our people for in-plant training and the acquisition of technical know-how.

Ceylon

1. Industrial Policy and Measures taken for its Implementation

Apart from industries connected with the processing of the three major agricultural products, tea, rubber and coconut, up to the end of the nineteen-thirties no systematic attempt had been made to set up manufacturing industries in Ceylon. In the late thirties, on the basis of certain surveys carried out prior to 1939, a "rough plan" was drawn up for the establishment of several factories. These were designed so that they would utilize indigenous raw material but would not involve heavy capital expendi-

ture or complicated machinery and equipment. On this basis factories for the manufacture of certain consumer products such as Plywood, Leather footwear, Quinine, Ceramics, Acetic Acid, etc., were constructed during the period of the Second World War. They were administered by the Department of Industries functioning within the Ministry of Commerce and Trade. These factories were, however, unable to compete with imported products when normal conditions were restored after the war and most of them were closed down.

Despite these attempts at industrialization a definite policy recognizing the necessity for building up a strong industrial sector did not emerge till the nineteen-fifties. For instance the first direct attempt to attract private investment into industry was made in the early nineteen-fifties with the amendment in tax laws. The Income Tax Amendment Act No. 36 of 1951, exempted the profits of newly established private enterprises from income tax for a period of five years up to a limit of 5 per cent of the capital employed.

Two reports issued about this time had an influence on Government policy. These were the Report on Government Commercial Undertakings issued in 1947 and the Report on the Economic Development of Ceylon by the International Bank for Reconstruction and Development issued in 1952. Both these reports strongly urged that the Government should, rather than enter into business itself, attempt to create a favourable atmosphere for private industrial investment. In 1955 the Government introduced the Government-sponsored Corporation Act No. 19 of 1955, by which statutory provision was vested in the Ministry of Industries to convert the existing state factories conducted by the Industries Department into autonomous institutions to be run by Boards appointed by the Minister. There was also provision for the transfer of such industries eventually to private ownership.

In the meantime in July 1952 a White Paper on foreign private capital had been issued with the intention of promoting the entry of foreign private capital into industrial enterprises. This document extended to foreign private investors the same concessions as had been granted to local industrialists.

In 1957 the Government's policy in respect of industrial development was enunciated by the then Minister of Industries in the House of Representatives. This provided for the demarcation of industries into three sectors, namely, those reserved for the public sector, those open to both the public and private sectors, and those left for development solely by the private sector. In regard to industries left for the private sector, it was further stated that, if no interest was shown by private industrialists within a reasonable period of time, the Government would withdraw such industries and place them in the category of industries reserved for the public sector. The industries reserved for the public sector were

iron and steel, cement, chemicals, fertilizers, salt and its by-products, mineral sands, sugar, power alcohol and rayon.

The Government also amended the Government-sponsored Corporations Act by a new Act, the State Industrial Corporations Act No. 49 of 1957, which provided for the setting up by the Government of new industrial undertakings and removed the clauses in the earlier Act made provision for the conversion of Government Corporations into private enterprises.

Under the provisions of these Acts Corporations were set up for the manufacture of cement, plywood, leather footwear, caustic soda and chlorine, cotton textiles, salt, ceramics, paper, roofing tiles, ayurvedic drugs, iron and steel, and hardware products and tyres and tubes for motor vehicles, as well as for the milling of coconut and other oils and the extraction of illmenite from beach mineral sands. It is proposed to set up a fertilizer factory and a petroleum refinery shortly.

In addition to the above measures in the public sector the Government, in pursuance of its policy of attracting investment into industries, also provided further incentives to private industry. Not only was the tax exemption referred to earlier extended for a further period but provision was made permitting the deduction from statutory income, within certain limits, of investments made in approved projects by either individuals or companies. Further, enhanced depreciation allowances were given on a lump sum basis on new industrial buildings and plant and machinery. These concessions were given to both local and foreign capital.

The Government even went further and expressed its readiness to consider the imposition of suitable tariffs and import controls wherever locally produced goods, though conforming to specified standards, found it difficult to compete with imported goods.

The reactions to this policy of granting special concessions were favourable. Both public and private investment in industry increased considerably and the base for building up a "mixed" industrial sector began to emerge in the early nineteen-sixties.

In 1961 steps were taken to regulate and control the development of industries in the private sector by administrative action in order to divert capital into essential industries, prevent the setting up of unnecessary industries leading to waste of capital, introduce a measure of planning and programming and ensure the co-ordinated development of both the public and private sector. Under this system licenses for the import of machinery and raw materials were allowed only in respect of new industries which had been approved by the Development Division of the Ministry of Industries.

Further fiscal concessions were granted to industry by the Inland Revenue Act No. 4 of 1963. This provided for the exemption from income tax of profits from the export of articles approved by the Govern-

ment, a development rebate on expenditure incurred in the purchase and installation of plant and machinery in new approved undertakings, and tax relief on investments in approved industries. Concessionary rates of customs duty were also given on the import of raw materials, machinery, equipment and components in the case of approved industries that do not enjoy a protected market.

Government had also taken several steps in order to encourage the export of industrial goods. Thus, apart from the tax holiday on export profits already mentioned, provision had been made for the refund of duty payable on raw materials consumed in carrying out export orders and for the deduction for income tax purposes of the costs of advertising outside Ceylon of industrial goods for export. In addition, in order to stimulate industrial exports further, the Government this year provided additional incentives by way of a rebate on income tax equal to 5 per cent of the value of goods exported provided such exports resulted in a minimum net earning in foreign exchange of 25 per cent of the f.o.b. value of the commodity. Government also agreed to the waiver of excise duty and turnover tax on industrial goods exported.

As regards the demarcation of industries between the public and private sectors, the only change made since the original enunciation of policy was the removal of the schedule containing industries open jointly to both the public and private sectors and the enlargement of industries reserved to the public sector. However, the entire question of demarcation of industries in this manner is at present under review by the Government.

In regard to foreign investment, the policy laid down by the last Government was that such investment would be welcomed subject to the following conditions:

- (i) That it will generally be for productive purposes, particularly in new fields of industrial activity or in fields where the domestic private sector has not already established itself in this country;
- (ii) That it should generally be permitted in collaboration with local enterprise, such collaboration being dispensed with only if

local enterprise was not forthcoming, or if the enterprise undertakes the manufacture of products for export under trade names of wide usage;

- (iii) That it should lead to progressive domestic manufacture substituting ultimately for imports to the highest practicable degree; and
- (iv) That it should not enter into fields reserved for the public sector.

This policy, too, is at present under review by the Government.

In the field of services to industry the following institutions have been set up:

- (i) The Ceylon Institute of Scientific and Industrial Research
- (ii) The Agricultural and Industrial Credit Corporation
- (iii) The Development of Finance Corporation
- (iv) The Small Industries Service Institute, and
- (v) The Bureau of Standards

The Ceylon Institute of Scientific and Industrial Research not only carries out research into various matters connected with industry such as the utilization of local raw materials but provides advisory and consultative service to industry. The Agricultural and Industrial Credit Corporation and the Development of Finance Corporation provide finance for industrial undertakings, while the Small Industries Service Institute (which was set up with assistance from the International Labour Organization) provides technical assistance and advice to small scale industries. The Bureau of Standards, which has been set up very recently, will deal with all matters connected with industrial standards and standardization.

II. Progress and Problems of Industrialization

As indicated earlier the development of industries in Ceylon was not sufficiently stressed in the nineteen-forties or early fifties. It was not until the Ten-Year Plan of 1959/68 was formulated that emphasis was placed on industrial development. The following figures taken from the Six-Year Plan issued in 1954, the Ten-year and the Three-Year Implementation Programme issued in 1962 will indicate the increasing emphasis placed on investment in industry.

	Planned Investment in the Public Sector (Million Rs)	Investment in the Private Sector (Million Rs)	Total Investment in Industry (Million Rs)	Total Planned Investment (Million Rs)	Ratio of Investment in Industry to Total Investment (%)
Six-Year Plan (1954-60)	111	Not indicated	111	2,528	4.4
Ten-Year Plan (1959-68)	1,973	771	2,744	13,600	19.9
Three-Year Implementation Programme (1962-64) ...	435	123	558	2,395	23.3

It would be expected that in view of the limited investment in industry till recent times, the contribution made by industry to the national income would not be significant. The following figures give an indication of the rate of industrial growth and the place of industry in the national economy during the period 1950 to 1964.

Year	Industrial Output (Million Rs)	National Income (Million Rs)	Ratio of (1) to (2) (%)
1950	149	3,501	4.25
1951	159	4,619	3.44
1952	178	4,507	3.95
1953	192	4,491	4.28
1954	196	4,748	4.13
1955	215	5,234	4.11
1956	222	5,096	4.36
1957	240	5,200	4.62
1958	278	5,493	5.06
1959	317	5,794	5.47
1960	332	6,075	5.47
1961	353	6,115	5.77
1962	389	6,361	6.12
1963	463	6,592	7.02
1964	533	7,121	7.49

As the above figures indicate there has been larger annual increase in industrial output during the last few years than in the previous period. This has been due mainly to the rapid increase in investment in the private sector where actual investment during this period was about Rs. 350 million, exceeding the amount set out for investment in this sector in the Three-Year Implementation Programme. This investment was mainly in the light consumer goods industries and resulted chiefly from the restriction of imports which was necessitated by the deteriorating foreign exchange situation. However, it has not been possible to maintain this rate of development as a further deterioration of the foreign exchange situation has not only made it impossible to grant permission for the setting up of new industries but rendered difficult the importation of all the raw materials required by existing industries for the utilization of their full installed capacities. This problem is now receiving the attention of Government and it is expected that the situation will be eased by next year.

Apart from the lack of foreign exchange, the chief obstacles to rapid industrial development in Ceylon have been found to be the following:

- (i) the limited size of the internal market,
- (ii) the lack of technical knowledge of industrial processes,
- (iii) the dearth of trained personnel,
- (iv) the inadequacy of construction capacity,
- (v) the lack of feasibility studies and project reports, and
- (vi) the inadequacy of information in regard to the existence and utilization of local raw materials.

Ceylon, being a small country, is particularly affected by the limited size of its internal market. While some attempt has been made to commence the export of manufactured products, the real solution to this problem seems to lie in the sphere of regional co-operation and the assistance that can be given by the developed countries as recommended by the United Nations Conference on Trade and Development. In regard to regional co-operation, it would be necessary to prepare suitable schemes on the basis of the mutual benefit of the participating countries and providing for a reasonable distribution of regional industries.

The lack of technical knowledge of industrial processes can only be remedied gradually as industrialization progresses. In the meantime to solve this as well as the problem of the dearth of trained personnel regional co-operation would be of great assistance. By setting up regional training institutes for particular disciplines it should be possible to meet the need for trained personnel in this as well as in other countries in the region with the minimum expenditure of financial and other resources.

The inadequacy of construction capacity has led in Ceylon to a slowing down of the rate of industrial development. Measures to remedy this situation are at present under examination by the Government.

It has often been found that even when finance was available investment in industry could not proceed due to the lack of feasibility studies and project reports. The question of setting up a suitable organization that would assist Governments in drawing up such reports expeditiously seems to be worthy of consideration.

As regards the utilization of raw materials, a Five-Year Plan for the survey of the entire mineral resources of the Island has been drawn up. However, in view of the dearth of the trained personnel required for undertaking this work, the assistance of international organizations and developed countries would be welcome.

III. Conclusion

An attempt has been made above to give a brief account of certain aspects of industrial development in Ceylon, its progress and problems. As already indicated the contribution of industry to economic growth has not so far been significant. The objective of the Government is to attain, as soon as possible, a rate of economic growth of about 6 per cent per year, and it has, in this connection, assigned an important role to industry. In the public sector, Government has already provided increased funds for Government industrial corporations and is also taking steps to improve their performance. As far as private industries are concerned, as already indicated, Government has provided the necessary fiscal and other incentives and concessions to enable private industry too to make its contribution to economic development. In addition steps have been taken to re-organize credit and savings institutions with a view to directing a greater volume of credit to productive undertakings. It is expected that, as a result of these and other measures, industry in both the public and private sectors will make an increasing contribution to the growth of national income in the coming years.

China

On behalf of the delegation of the Republic of China, I wish to take this opportunity of expressing our sincere thanks to our host, the Government of

the Philippines, for its thoughtful arrangements and warm hospitality. We also feel deeply appreciative of the fine work the ECAFE Secretariat has done, including the various documents it has prepared for this conference.

We are all aware of the significance of industrial development in economic growth, especially in developing countries. It is gratifying to note that many countries of the region have been making encouraging progress in their efforts for industrialization.

Although industrialization is an evolution from an agricultural to an industrial economy, the spur to industrialization usually comes from improvement in agriculture. In turn, industrial advancement will benefit agriculture by increasing farm productivity. This is exactly what has happened in the Republic of China. Without a prosperous agricultural sector, we could not have accomplished this transition to industrialization successfully in the last decade. For it is the prospering rural community that has provided the budding industries a ready market, and a vigor for continued growth.

Aside from some far from abundant reserves of coal and natural gas, we are in general short of mineral resources. For this reason and due to the fact that local industrialists are still not yet well prepared for full scale industrial development, it is advisable to have our Government play an active role in industrial planning. Starting from 1953, three four-year economic development plans have been launched by our Government to guide both the public and private sectors to proceed along the right track for industrialization. Indeed, a correct strategy is indispensable to sound economic development for countries emerging from agricultural society. Such a strategy should be one aimed at setting a firm foundation at the initial stage of development and at achieving self-sufficiency gradually through proper utilization of manpower and natural resources.

It has been the policy of the Government of Republic of China to have a balanced development of agriculture and industry as a means of maintaining steady economic growth. Nevertheless, as a result of growth and diversification of the industrial sector, industrial output has exceeded that of agricultural output. Between 1952 and 1964, industrial output rose by 304 per cent as compared with 70 per cent for agricultural output in the same period. The rapid industrialization of this country has also resulted in a steady growth of the Gross National Product averaging about 7 per cent increase per year when valued at constant price of 1952.

A striking feature of the industrial development of this country is the rapid growth of private industries. Whereas Government-owned industries predominated in the early post-war years, private industries have gained increasing significance after transference of several large state-owned industries to private ownership and as a result of the creation of a favour-

able investment climate by our Government. It has been a policy of our Government to foster private enterprise by offering tax benefits, favourable credit terms, encouragement of private savings, and easing of Government control to channel more private capital into productive enterprise. The rapid development of private industries following such measures has as a matter of course reversed the relative significance of the private and public industries to the national economy. During the period from 1952 to 1964, the average annual rate of increase of industrial output was 19 per cent for private industry and only 7.6 per cent for state-owned industries. In the same period, the share of private industry in the total industrial output increased from 40 per cent to 69 per cent, while the share of Government owned industries dropped from 60 per cent to 31 per cent.

Since more specific information has already been compiled in the country study prepared for the Asian Conference on Industrialization, December 1965, I would render just a brief account of the various stages of growth of our industry:

In the early post-war years, our economic development efforts were concentrated in repair and rehabilitation of the war-torn factories, most of which were restored to their prewar condition within a short span of time.

Due to rapid population growth and improved agricultural production in the wake of a successful land reform programme, we were soon faced with increased demands for consumer goods. The First Four-year Economic Development Plan was started in 1953 with special emphasis on industrial development to cope with this situation. Aside from expansion and modernization of such industries as cement, cotton textile, petroleum refining, and food processing, production of more industrial products from indigenous raw materials was promoted. For example, new plants were built to produce window glass, bagasse board and DDT. Fast growth was enjoyed by the textile, flour mill, and edible oil industries using cotton, wheat and soybeans imported under the U.S. Aid programme as raw materials. Metal, machinery and electrical appliances industries also began to develop during the period.

The Second and Third Four-Year Plans launched respectively in 1957 and 1961 aimed at further increase and diversification of industrial output, augmentation of national income, and improvement of balance of payment situation through export promotion. Among the industries established under these plans, particularly noteworthy were PVC resin, viscose rayon, plywood, dry yeast, and urea fertilizer. Existing industries were again expanded and modernized to meet the increasing demands. Development of food industries has resulted in the canned pineapple and mushroom industries becoming two of our principal foreign exchange earners and in the pro-

duction of automobiles, refrigerators and television sets which also began during this period.

The growth of the petroleum refining industry and discovery of natural gas have paved the way for development of petrochemical industries in this country. Natural gas is now being used in making nitrogenous fertilizers and will soon be used to make methanol at a plant under construction. A naphtha cracking plant is now under construction to serve as the building block for another series of petrochemical industries including production of polyethylene and vinyl chloride monomer.

In order to provide adequate power supply for industrial development, our Government has increased the capacity for electric power generation from 300,000 Kw in 1952 to 1,100,000 Kw in 1964. Industrial power consumption rose from 0.8 billion KwH in 1962 to 4 billion KwH in 1964.

Our future plans for industrial development will proceed along the following lines:

Development of Basic Industries — In our fourth Economic Development Plan starting from 1965, special emphasis has been laid on the development of basic industries such as the iron and steel industry and the engineering industry. In the course of our industrial development during the past decade, we strongly felt the necessity to plan our own production of iron and steel and to improve and expand our engineering industries so that implementation of industrial projects can be greatly accelerated. The establishment of an integrated steel mill capable of producing one million metric tons of steel products annually has been planned as a joint venture of public and private interests.

Development of Energy Resources and Electric Power — Sharp increase in energy requirements has caused us to map out long-range programme to further develop indigenous energy resources such as coal and natural gas and to extend geological and exploration work to offshore area in the hope of discovering crude oil reserve. Under careful planning by our Government, more electric power generation units are being planned and built to meet the steeply climbing requirement of electric power. It is expected that by 1970, the total installed capacity for electric power generation will reach 2.5 million Kw. Due to the fact that electric power is a basic requirement of all industries and because power generation is highly capital intensive, we feel it necessary to have our Government take charge of its development.

Development of Petrochemical Industry — Development of the petrochemical industry will be centered in the establishment of complexes or the production of intermediates for making plastics, synthetic fibres and synthetic resins by using basic materials to be produced from a naphtha cracker and ethane and propane to be separated from natural gas. We would like to emphasize the significance of practicing back-

ward integration which is the only means that can make possible the manufacture of these intermediates in economically justifiable sizes especially in developing countries.

Development of Labour Intensive Industries — Although our country has had some encouraging results in industrial development during the past decade, like the other countries of the region, we are facing from time to time such difficulties as lack of capital, of skilled and managerial manpower, of natural resources, and lack of sizable market to justify establishment of large-scale industries. In order to harmonize national development, we have endeavoured to overcome these difficulties. And in the course of such endeavour, it reflects that regional co-operation in the supply of raw materials and intermediates, in technical know-how, finance co-operation and in joint ventures is urgent and indispensable.

Firstly, as regards the requirement of capital for industrial development, although private capital formation has increased substantially after encouragement of private saving, it is far from sufficient to cover the vast capital required for carrying out the various projects mapped out in our development plans. Considerable amount of foreign capital has been flowing into this country in response to our improving investment climate. We have extended our ardent support to the establishment of the Asian Development Bank which we believe will contribute greatly to providing significant financial assistance for industrial development to countries of this region.

Secondly, as regards the supply of raw materials and intermediates, due to lack of natural resources, we are depending on import of such strategic raw materials as crude oil, bauxite, timber, chemical pulp, and in the near future on import of iron and copper ores. In our economic planning, we have taken into consideration importing such raw materials from countries of the region. On the other hand, we have also envisaged the possibility of exporting to countries of the region a portion of the intermediates for their manufacture into final products. Such planning will help attain gradual development of the local market and will at the same time help some countries of the region to speed up industrialization through backward integration.

Thirdly, as regards the supply of technical manpower, through careful planning we have developed in our country during the past 15 years a sizable technical manpower including engineers and skilled labour which constitute the backbone of our industrial development programme. However, while more industries are being developed, we are faced with a shortage of managerial personnel and also skilled craftsman for engineering industries. We hope that technical co-operation on vocational training as well as on supply of skilled personnel can be developed on bi-lateral or multilateral basis among countries of the region. We shall be most pleased to render technical assistance

and to arrange training programmes in our country on various phases of industrial operation in which we are experienced.

In short, we hope that measures and recommendations to be adopted by this conference will help solve not only national problems but will also help create multilateral relationships and bring about regional co-operation so that industrialization for countries of the region can be accelerated.

Hong Kong

1. Hong Kong is one of the very few territories, if not now the only one, which has remained completely faithful to liberal economic policies of free enterprise and free trade. The role of the Hong Kong Government in industrial development has been confined to maintaining social and economic stability, which is the prerequisite for a favourable investment climate and to providing the essential basic needs of industries such as land for industry, an efficient system of transportation, adequate water supplies and other public services. Among the various public utilities, the government monopolizes only water supply; other public services, including the supply of electricity and gas, telephone and telegraphic services and public transport services, are provided by the private sector, under government franchises and governed by Ordinances to ensure adequate and efficient services. To provide stable and efficient banking facilities in Hong Kong, a new Banking Ordinance was brought into force in December, 1964. At the end of 1964 there were eighty-eight banks of fifteen nations operating in Hong Kong.

2. The Hong Kong Government does not give subsidies of any kind to industries, nor does it seek to protect local industries by resorting to tariff barriers and quantitative restrictions. Hong Kong is a free port and import duties are levied on a few items only, namely: alcoholic liquors, tobacco, hydro-carbon oils, table waters and methyl alcohol. The standard in taxation rate on earnings and profits has been 12½ per cent for the last fourteen years which is low by present world standards. In addition, there are no restrictions on foreign investments and on repatriation of capital and remittances of profit.

3. Although there is no provision in the laws of Hong Kong for the original grant of patents, patents granted in the United Kingdom are registrable in Hong Kong, which confers the same rights as in the United Kingdom. Designs registered in the United Kingdom, under the United Kingdom Designs (Protection) Ordinance enjoys the same privileges in Hong Kong as in the United Kingdom. Copyright in Hong Kong is governed by the British Copyright Act of 1911. Trade marks are registrable in Hong Kong under an ordinance which is based substantially on the British Trade Marks Act of 1938.

4. All factories are required to be registered with the Government to conform with certain

standards of industrial health and safety. The Government also ensures that Hong Kong's obligations under international labour conventions are observed.

5. Prior to industrialization, Hong Kong depended on earnings from entrepot trade. However, by the turn of this century, as a natural development of port activities, ship building, ship repairing and allied industries had already been established. The First World War gave some impetus to the development of industry when Hong Kong was denied certain manufactured goods from European sources. But these industries were minor ones. When the principle of Commonwealth Preference was introduced in 1932 as a result of the Ottawa Agreement, the possibilities of enlarging local industries was foreseen by some farsighted industrialists. Through their efforts, Hong Kong gained its first footholds in overseas markets.

6. Hong Kong's real industrial development did not begin until the early years of the 1950's when the Korean War and the resultant embargo on trade with China drastically reduced the volume of Hong Kong's entrepot trade. With the large influx of immigrants on the one hand and the loss of traditional entrepot trade with China on the other, it was evident that industrialization was the only solution to the problems thus created which were threatening the social and economic stability of Hong Kong. Industrialists, both local and immigrated from China, reacted quickly to the new situation. As a result, an increasing volume and range of Hong Kong manufactured products from newly established industries began to flow into world markets.

7. The extent of Hong Kong's industrial development can best be borne out by comparing statistics between 1954 and 1964. In 1954, there were only about 2,600 factories in Hong Kong exporting manufactured products valued at US\$150 million. On the basis of an estimated total population of 2.5 million, the export value per capita per annum was US\$60. In 1964, the number of factories increased to about 8,300, exporting US\$780 million worth of manufactured goods. On an estimated population of 3.7 million, the export value per capita per annum was US\$210, representing an increase of 250 per cent over ten years.

8. From the point of view of labour employment, according to the 1961 Census, the working population was 1.2 million out of a total of 3.1 million. Of this working population, 7 per cent was engaged in agriculture and fishery, 42 per cent in services and 51 per cent in industry. By the end of 1964, it was estimated that 745,000 persons were employed by industry. It follows therefore that industry is now the mainstay of Hong Kong's economy.

9. Hong Kong has to face formidable problems in its industrialization. There are virtually no natural resources and nearly all the foodstuff for consumption by its population as well as practically all the raw

materials and most of the capital equipment necessary for the production of consumer goods have to be imported, often at higher prices than those available in supplying countries. There is a shortage of readily usable land and a potential shortage of fresh water. The population is growing rapidly by natural increase and by immigration.

10. At its present stage of industrial development, Hong Kong has to face new problems of rising wages in manufacturing industries (78 per cent over the last 6½ years); of the need for higher technological skills at all levels and of the necessity to diversify into more sophisticated industries. Hong Kong has also to face increasing obstacles to the free flow of its export of manufactured products. This is perhaps the most serious of all the problems as Hong Kong's industries, with few exceptions, are export oriented and owe their existence to access to markets abroad.

11. To counter the shortage of water, the government initiated an expensive programme of water conservation which has increased the total storage capacity from about 5,600 million gallons, or 2,200 gallons per capita, in 1954, to 16,700 million gallons, or 4,400 gallons per capita, 1964. To meet the shortage of readily usable land the government has put in motion several large land reclamation projects to provide hundreds of acres and land for industrial, commercial and social purposes. To cope with a much increased demand for various public utilities, concerted efforts are continually being made by the public and the private sectors.

12. To counter the impact of rising wages and the shortage of skilled workers, both government and private organizations have exerted efforts during the last five years to improve industrial productivity and the government is now co-ordinating these efforts by establishing a National Productivity Council and a Board for Industrial Training. Hong Kong has been a member of the APO since 1963 and has during two years conducted international and national seminars in the field of productivity.

13. On the development of management, Hong Kong has played a leading role in this sphere and was a founder member of the Indo-Pacific Council of the International Committee on Scientific Management (IPPCCIOS). Hong Kong was also elected chairman of this council in May 1965 for a term of three years. A regional conference on scientific management is scheduled to be held in Hong Kong in 1968.

14. To conduct research and development of new products, a Council for Science and Technology is being considered as a means to help diversifying products and to make adaptive research for the transfer of new technology from developed countries.

15. In order to seek new markets and to strengthen existing ones for our manufacturers, a Council for Overseas Trade and an organization for export credit insurance are about to be established.

16. The Federation of Hong Kong Industries has entered into an agreement with the British Retail Trading Standards Associations. Testing and certification for textiles manufactured in Hong Kong under this arrangement are now being undertaken by the Federation. The Federation has also established a Standards Committee to promote the standards of other industrially advanced countries in Hong Kong.

India

The industrial policy of the Government of India finds expression mainly in (i) the Industrial Policy Resolution of 30 April 1956, (ii) the Industries (Development and Regulation) Act, 1951 and (iii) the five-year plans.

The Industrial Policy Resolution of 1958 divides industries into three categories: (i) industries whose future development will be the exclusive responsibility of the State (Schedule 'A'), (ii) industries which will be progressively state-owned but in which private enterprise will also be expected to supplement the effort of the State (Schedule 'B') and (iii) remaining industries which will, in general, be left to the private sector.

The division of industries into separate categories does not imply that they are being placed in water-tight compartments. Inevitably, there is not only an area of overlapping but also a great deal of dovetailing between industries in the private and public sectors. Private capital, Indian or foreign, is not allowed, as a rule, in the industries reserved for the public sector. In special circumstances, however, exceptions are made where these are found to be in the public interest. The establishment of major new units, and increases in the existing capacity, have been permitted in some of the industries in Schedule 'B' in the private sector.

The Industries (Development and Regulation) Act, 1951, which came into force in 1952, gives the central Government broad powers to regulate the operation and development of 165 industries listed in the schedule. An amendment to the basic Act in 1953, besides strengthening the central Government's authority to act in emergency situations where industries are being managed in a manner detrimental to the industry or to public interest, also gave the Government extensive powers to regulate the supply, distribution and prices of articles in scheduled industries.

It has always been recognized that Indian capital needs to be supplemented by foreign capital, which brings along with it scientific, technical and industrial knowledge and capital equipment. The Government is, however, selective in allowing foreign investment. As a rule, Indian participation in foreign controlled companies is insisted upon from the very beginning. Whenever expansion is contemplated in such companies a larger association of Indian capital is again insisted upon. Provision for the training of Indian

personnel for technical and administrative posts in the joint enterprises is also desired. In the matter of foreign investment in Indian industry, the Constitution of India provides that compulsory acquisition if at all resorted to, can only be for a public purpose and on the basis of payment of compensation fixed by legislative action. The Indian Government treats on par, and makes no discrimination between purely domestic private enterprise and any other enterprise where foreign capital is a participant.

In the formulation of programmes of industrial development, not only the demands of the domestic market but also the growing needs of exports are of vital importance. Industrial projects oriented towards export promotion therefore receive special encouragement.

Until recently, agriculture was the mainstay of the people of India. Even now, nearly 70 per cent of the population depends on agriculture for its livelihood. The agricultural sector accounts for less than 50 per cent of the national income, however, and there is an urgent need to increase farm output. This cannot be done without active support from the industrial sector, which should provide modern farm implements, water pumps, chemical manures, insecticides, etc. To carry this farm output to consuming centres, it is necessary to strengthen the transport network in the country. This is possible only if more and more locomotives, trucks, wagons, etc., are produced by the industrial sector. The consequent increase in incomes will generate a growing demand for a host of consumer goods such as bicycles, sewing machines and radios.

A dynamic growth of industry is absolutely essential to lift an erstwhile stagnant society by the bootstraps. Such dynamism cannot be generated in a vacuum. It needs natural resources and a resourceful and intelligent people. It also postulates an expansion in the infrastructure of fuel, power, transport and mining.

Fortunately, nature has endowed India with several of the raw materials required for industrial expansion. For instance, the rich black soil of peninsular India is well suited for growing cotton and oilseeds. Sugar-cane can be cultivated successfully in several parts of the country where water supply is plentiful. These crops provide the raw materials for the cotton textile, vanaspati and sugar industries. Similarly, the country's bauxite reserves could build up a sound aluminium industry. The rich forest areas could supply the raw material for several woodbased industries such as paper, plywood and rayon. The country also possesses substantial supplies of coal and hydro-electric potential for generating electricity.

It should, therefore, be possible to develop an industrial pattern similar to that which has been built up in such economies as those of the USA or the USSR. In establishing this pattern, instead of concentrating on one or two industries, attempts should

be made to build up a whole range of extractive, metallurgical, machine-building and processing industries. Industrial development, will, however, proceed faster if, instead of trying to build up all these industries simultaneously, priority is given to basic and heavy industries.

This has broadly been the strategy of Indian industrial development. The First Five-Year Plan concerned itself mainly with agricultural development and the Second Plan with industry. The current Third Plan has laid special emphasis on machine-building, and this emphasis will grow in subsequent plans.

The logic of this growth hinges round the iron and steel industry which is the backbone of modern progress. Possessing some of the finest iron ore in the world and with a substantial supply of coal, India inevitably concentrated first on the iron and steel industry. Three large steel plants in the public sector were planned and completed early in the current Plan. Shortages in the supply of iron and steel from abroad had somewhat checked the growth of engineering industries until the beginning of the Third Plan. The completion of the new steel projects together with the expansion of the existing ones gave considerable encouragement to the manufacture of machinery required by well-established industries, such as paper, cement, textiles and sugar. Even so, towards the beginning of the Third Plan, machine-building capacity in the country was not impressive. It was, therefore, necessary to set up and expand a heavy machine-tool industry spread out in different parts of the country. At the same time, heavy electrical equipment needed building up on a substantial scale.

This emphasis on steel and machine-building does not imply neglect of other sectors. On the contrary, the economics of steel extends to such an important field as nitrogenous fertilizers. Coke-oven gases, which would otherwise run to waste, will be fully utilized to produce fertilizers. Organic chemicals, such as benzene, will also be derived from the same source. The dyestuffs industry is gradually approaching a stage where it could do away with imported intermediates. Similarly the plastics, drugs and alcohol-based chemicals and chemical products industries are expected to advance rapidly during the next few years. Significant developments have taken place in the field of oil exploration, which, apart from other advantages would provide the necessary incentive for the development of the petro-chemical industry. The growth of the aluminium industry has not only assisted industrial expansion directly, but has enabled industries using copper, which is in short supply, to switch over to aluminium. Production of cement, which is an important building material, has given rise to a flourishing and expanding industry. Remarkable progress has also been made in several other industries such as sulphuric acid, caustic soda, soda ash, paper and art silk manufacture. The plans

aim at a considerable development in steel machinery, coal-mining machinery, heavy machine tools, heavy forgings and castings, a wide range of electrical and transmission equipment, high pressure boilers, chemical machinery, etc. The ultimate aim is to be virtually independent of machinery imports in the future. This would enable the country to proceed under its own steam instead of depending, as at present, on the vagaries of imported equipment.

Industrial development of such magnitude puts a heavy strain on the country's balance of payments both on account of equipment that has to be imported at the earlier stages and the large requirements of imported raw materials, spares and components. Increasing export earnings is one way of easing this pressure on the balance of payments. With the diversification of manufacturing, it should be possible to diversify the range of India's exports so as to include not only traditional items such as textiles, but also engineering products.

Although India has still a long way to go before her industrial base is fully and firmly laid, a good deal of progress has already been achieved, and she has acquired a considerable amount of experience in the planning of industrial development, in the implementation and operation of industrial projects and in the designing and fabrication of industrial machinery and equipment. India is anxious to share this experience and expertise with the developing ECAFE Countries. She is desirous of promoting schemes in which she can co-operate with and assist such countries. Apart from suitable joint venture schemes as may be investigated and negotiated, the following are some of the ways in which India would like to collaborate and assist:

- (i) Plan formulation and planning techniques
- (ii) Prospecting, exploration and proving of mineral resources
- (iii) Technical training, including in-plant training
- (iv) Expert assistance in the making of feasibility studies and preparation of project reports
- (v) Management training, including training in small Business Management and Industrial Engineering.

Iran

The industrial policy of Iran is guided by the general principles of our Third Development Plan, the main aim of which is to increase the national income of the country at least by 6 per cent per annum. The major guidelines of this policy may be summarized as follows:

1. To provide better facilities than have so far been available for the encouragement of a more accelerated growth of industrial development.

2. To encourage the expansion of industries in the provinces with due regard to the potentials of each programme.
3. To shift the industries engaged so far in the assembly of imported components to the production of these components in the country as far as possible.
4. To assist in the creation of light engineering intermediary industries as well as machine-tool factories by providing necessary incentives to private investors.
5. To encourage investment in industries which have failed to attract private investment in spite of demand for these products.
6. To provide further facilities for the payment of small industrial loans not only in and around Tehran but also in the outlying areas of the country.
7. To encourage such industries as have not so far utilized the available raw material resources of the country.
8. To find ways and means for controlling the quality of the industrial products and to establish industrial standards.
9. To promote regional and sub-regional co-operation, particularly in the development of such industries as cannot become viable and remunerative unless they are based on sufficiently large scale.

In order to implement these policy guidelines, the Ministry of Economy has evolved a licensing system. All industries are divided into eight groups and the criteria used for classifying an industrial unit are based on the consideration of the unit's impact upon the general economy of the country as well as the role it is expected to play in the development of the geographical area where it is intended to be established. These groupings have been described in detail in the country study on Iran, doc. I&NR/Ind.Conf./C.20.

Expansion of industries is particularly encouraged by granting tax exemptions. All companies whose operations are exclusively directed towards exportation of one or several types of goods or industrial commodities, or towards the operation and exploitation of mines, or towards the melting or refining of minerals are recognized by the Government as qualified for benefiting from the provisions of the Law on Encouragement of Exports and Production.

Since market survey and analysis play an important role in economic planning, the Ministry of Economy has devoted special attention to these surveys and analyses in recent years. A detailed economic survey of the country is being carried out by the Research Centre for the Development of Industry and Trade in the Ministry of Economy. This survey, when completed, will go a long way in determining the potentials that exist in the different regions and provinces of the country. It will be

particularly helpful in ensuring a balanced growth of all parts of the country. So far studies have been completed on Azerbaijan, Kurdestan and Khuzestan, i.e. provinces in the north, north-west and south-west, respectively.

At present, the economic policy of the Government is directed towards the encouragement of capital formation in the country. Among other measures which have been taken to encourage and channelize private saving, the following are receiving special attention:

- (a) The establishment of a stock exchange to lead small savings to investment.
- (b) Creation of development banks to evaluate projects and provide financial means for their implementation.

Induction of foreign capital has also been encouraged by the Government and necessary laws and regulations have been promulgated for this purpose. Detailed tables are given in the document C/20 to show funds received from different sources.

A development of the highest importance to this region in recent years has been the conclusion of an agreement between Iran, Pakistan and Turkey for co-operation in the fields of economic development. This arrangement is basically economic in character and should only be viewed at from that point of view.

Immense possibilities will emerge as the three countries proceed on this path.

The Ministry of Economy has also devoted its attention to the management problems, specially with a view to achieving cost reduction and quality improvement of industrial products. A management institute was established sometime ago to undertake research and training in the field of management.

With regard to the problems of Iran in the field of industrialization, the subject has been dealt with in detail in the document C/20 and it would not be necessary to repeat them here. However, from the policy point of view, perhaps the most important of them is the location problem. Unfortunately, communications are still lagging behind in and between the provincial towns. As a result, the government finds it in considerable difficulty in persuading intending and potential investors to start industries in the towns, especially those that lie in the interiors. Efforts are also being made to provide the provincial towns with water, electricity, asphalt roads, automatic telephones and other necessities.

During the past three years although the country was faced with a situation, often referred to in the said document as stagnation of industrial activity, considerable success has been achieved in the implementation of the aforesaid policies and already signs of recovery have begun to appear. Although we are yet behind the Third Plan targets, it is hoped that in the remaining two years, these targets will be fully achieved.

Japan

I should like, first of all, to congratulate you, Mr. Chairman, on the unanimous election to the post of chairmanship of this important conference. I am confident that under your able guidance the conference will be able to achieve a fruitful result.

Mr. Chairman,

It is indeed a welcome tendency that within this region of Asia and the Far East, the need for close economic co-operation has growingly been recognized. Since the first Ministerial Conference held in Manila in 1963, a number of concrete programmes for regional co-operation have been put into effect in the framework of the Economic Commission for Asia and the Far East, the most notable examples being the Asian Development Bank, the Mekong Development programmes and the Asian Highway project.

Industrialization is another important field in which regional co-operation is most urgently called for, in view of the small size of markets which developing countries in the region can provide. Although the ECAFE has already done a lot of useful work in this field as well, my Delegation feels that it is high time to give some more stimuli for the acceleration of the regional co-operation for industrialization.

My Delegation therefore feels that the holding of the present Conference at this juncture is particularly important and opportune, and it is convinced that this new approach will surely mark an important step forward for the aim which this conference has set.

In this connexion, my Delegation wishes to congratulate the secretariat for the valuable documents it has prepared for this Conference, which contain all the useful information of individual countries as well as the suggestions for the future course. My Delegation believes that this exchange of information will probably be the first and the most important task which this conference should perform, and which is the basis for further concrete steps.

It is also to be hoped that results of this conference will fully be reflected in the world symposium on industrialization to be held in 1967 and will make a useful contribution on that occasion.

Mr. Chairman,

I would like to take this opportunity to make a brief statement on the industrial development in Japan during the past 20 years, the factors which enable a rapid development of industries, and the problems confronting us at present.

I recall that at the end of the World War Two, the scale of Japan's national economy was down to about 60 per cent of the pre-war level, and production of the mining and manufacturing industries was only 30 per cent of the pre-war average. During the rehabilitation period, that is, from 1945 to 1954, the annual rate of growth of Japan's economy was 9 per cent. As a result, Japan's Gross National Product (in real terms) as well as the total consumption, regained its prewar level in 1954, and the mining and

manufacturing output, in 1955. Although the rate of growth of Japan's economy decreased slightly during the years around 1955, it rose again since 1959, and the average rate of growth from 1955 up to now, has been approximately 10 per cent per annum.

As a result of this continuous high rate of growth, the nominal Gross national products increased to \$69.4 billions in 1964, a 3 fold expansion against the level in 1955. A speedier tempo of increase was registered by the mining and manufacturing production. The production in this category, which in 1955 had reached the prewar peak, increased in 1964 to a level higher by 3.5 times that of 1955.

It may be a natural course of event that Japan's economy showed a continuous high rate of growth during the first 10 years after the War, since it was a period of post war reconstruction. However, it is noteworthy that even after 1955 Japan's economy has continued to grow at a high rate. We believe the following points account for such high rate of growth.

First, a very active private investment in plant and equipment. The ratio of the gross private capital formation to GNP has been between 20 and 30 per cent since 1950, and its major part was represented by private investment in plant and equipment. Such active private investment were induced by the introduction of foreign technology, the rationalization of equipment of the enterprises to strengthen their international competitive power, in order to meet the impact of trade liberalization, the expansion of their production scales and so on.

The second factor which helped the growth of Japan's economy was the steady increase of exports. Furthermore, I might point out the following three basic conditions for industrial development which existed in the post-war Japan.

First, abundant labour force of good quality:

Second, the high rate of personal savings which were important source of funds to finance equipment investment for private enterprises;

And third, the long-term stability in prices, especially the wholesale prices.

Recently, however, as a result of the too rapid growth, mainly caused by active private investment in plant and equipment, there have been some imbalances or difficulties, not only in the industrial and trade fields, but also in the field of finance, prices, employment and so on. To cope with such a situation, the Government has adopted the "Medium Term Economic Plan" for the period of 1964 to 1968, in which the target rate of the economic growth is set as 8.1 per cent as against 12.7 per cent for the 59 to 63 period.

Thus, by slowing down the rate of growth, it is intended to realize a stable growth of Japan's economy for the years to come.

Mr. Chairman,

In the past ten years, Japan's economy underwent considerable structural changes; while the agri-

cultural, mining and fishing industries or the so-called primary industries have decreased its relative weight, the secondary, or manufacturing industries have expanded at a high rate. In the meantime, the tertiary or servicing industry has shown little change in its relative weight. Most remarkable is the growth of production of heavy and chemical industries which rose by 80 per cent in the five-year period from 1959 to 1964, while the production in the light industries increased only 40 per cent during the same period.

With regard to foreign trade, my country has strenuously pursued the policy of trade liberalization since 1960, and as of April 1964, 93 per cent of total trade was liberalized.

Finally, Mr. Chairman, I might point out some of the difficulties which confront Japan's economy in its industrial development.

First, profit ratio of enterprises have recently been conspicuously declining.

Second, the gap between big industries and small and medium scale industries have been widening.

Third, the scarcity of labour has begun to be felt, and

Fourth, consumer's prices have been in the upward trend.

These tendencies will continue to affect the future activities of the industrial sector in Japan.

Mr. Chairman,

I have briefly explained the recent past history of the industrial development in my country. In our own experience, we have found the following factors to be important in the acceleration of industrialization; namely, the encouragement of private capital formation, the increase of national savings, and the training of qualified labour. I have made particular reference to these points because we feel that these have not been given sufficient importance in the past. It is our hope that this conference will give due consideration to these factors as well.

In conclusion, my Delegation wishes to state that despite the various internal difficulties I have mentioned earlier, the Government of Japan will endeavour to extend its full co-operation for the economic development of the developing countries, in the belief that, together with the stable growth of the economy of the developed countries, the economic development of developing countries is essential for the prosperity of the world economy as a whole.

Thank you.

Republic of Korea

I. Industrial Development Policy and Major Measures in Korea

A. Guiding Principles

The guiding principle or main strategy of industrialization in Korea is the attainment of a self-sustaining economy through the continuous formulation and execution of long-term economic development plan and

the enlargement of the role of free entrepreneurship.

These terms of sustaining economy relate not only to the international balance of payment but also to self-sufficiency of food grains and many other aspects.

B. Major Policy and Measures adopted

- (1) Overall and continuous development of energy resources such as coal, electric power and oil refining.
- (2) Positive promotion of import substitute industries.
- (3) Giving high priority in the second five-year economic plan to the development of the steel and iron industry as well as the machine and engineering industry.
- (4) The development of basic chemical industries especially the petrochemical industry and the synthetic fibre industry.
- (5) Export industries, especially small-scale industries which are usually technical intensive and capital-saving, will be further encouraged.
- (6) In order to equalize regional income new industrial estate and regional allocation of plants will be guided and subsidized.
- (7) More than one small-scale industries for training and demonstration will be established for each province.
- (8) Improvement of production and quality management such as standardization, patents and the role of labour in industry should be stressed in development planning.

II. Progress and Problems of Industrialization

1. Progress

Even if it is still below our objective, the speed of industrialization in Korea is remarkably fast as compared with other developing countries in the world. This is shown in tables 1 and 2 of Paper 4, which was submitted to this Conference by the United Nations Centre for Industrial Development.

- A. Industrial production index indicated that the annual rate of increase was 13.4 per cent during the decade from 1955 to 1964. The index of manufacturing of 81 per cent of total industrial production increased to 147 (1960 = 100) in 1964, an increase of 159 per cent over 1955.
- B. In terms of added value, the annual growth rate of the secondary industry was also relatively high, representing an increase of 10.5 per cent for the same period as above.

The manufacturing industry attained an average growth of 11.0 per cent during the period.

- C. With regard to physical progress in industrialization, the rapid production increase and construction of key industries, such as coal, electric power, cement, oil refining and fertilizer have been emphasized by the 1st Five-Year Economic Development Plan, 1962-1966.

The production of coal increased to 9.6 million m/t in 1964 from 1.3 million m/t in 1955 and electric power generation was 2,700 million kwh in 1964 or tripled from 1955. An oil refinery plant of 35,000 barrels capacity per day has been completed and it is planned to expand its capacity to 100,000 barrels by 1968.

As for the cement production, three new plants of 2 million m/t per year total capacity with two existing, have been completed, making way for the export of cement.

With the highest priority given to self-sufficiency of fertilizer in the 1st Plan, three other big scale's fertilizer plant are under construction. When completed these plants will be able to export some of their surplus.

2. Problems

(1) Technical Training

As was pointed out by the papers prepared by ECAFE, ILO and APO, close association in teaching research and, utilization of technology is proper, and urgently required.

(2) Price stabilization

Rapid increase of prices weakens the competitive power in the international market.

(3) Short of Capital Mobilization

The annual level of investment during the past ten years was 14 per cent of GNP. However, most investment was made possible through grant aid from U.S.A., which now is expected to rapidly decline in volume.

Although aided by the laws designated to expedite the introduction of foreign investment, the result is far behind the requirement.

III. Suggestions for Co-operative Actions

Although our efforts in promoting manufacturing industries has made a substantial progress in its output and value, this industry as a whole remains in the category of early stage of development.

Because of this stage of industrialization and the geographical situation, i.e. located in the far end of this region and separated by wide oceans from neighbouring countries, we are unfortunately not strong enough to initiate regional cooperative actions or joint programmes for financial support with other member countries.

However, we wish to promote some technical co-operative actions in the fields in which we are relatively advanced in techniques and are operating very successfully, such as in cement, glass, ceramics, fertilizer and textile industries.

For example, with the research centre of ceramics in Korea already established and with plans to expand, we willingly offer that the regional design centre for ceramics be in Korea in the near future.

It is highly recommended to install a mobile technical training team in order to overcome some defects in in-plant training and in order that sufficient action for industrialization can be provided by the secretariat of ECAFE so as to have all the countries in the region fully informed and co-operative.

Laos

1. Il serait inutile de développer de nouveau les raisons d'ordre économique et social qui ont amené notre Gouvernement à promouvoir une industrialisation progressive et coordonnée de notre économie. L'impératif de l'industrialisation peut se résumer dans les 2 nécessités suivantes:

— mettre en oeuvre nos ressources et moyens pour la production des biens en remplacement partiel de nos importations

— accentuer l'élaboration de nos produits destinés à l'exportation. Nous pensons qu'il ne serait pas superflu de souligner encore les obstacles que rencontre notre pays dans ce domaine et qui sont:

- insuffisance de l'infrastructure et de l'énergie
- manque de capitaux technique et financier
- étroitesse du marché national

2. Compte tenu, d'une part de l'impératif d'une industrialisation rapide de notre économie, et d'autre part, des contraintes physiques et économiques citées plus haut, notre Gouvernement s'est attaché à bâtir sa politique de développement industriel comme suit:

a) Objectifs:

— *Production:* L'industrialisation de notre pays sera axée vers les secteurs liés étroitement à l'agriculture et à l'extraction des matières premières afin de stimuler la production agricole et minière tant quantitativement que qualitativement.

— *Monétarisation de l'économie:* Notre Gouvernement s'attache à monétariser progressivement notre économie par l'élargissement des connexions d'échanges de biens et services par l'intermédiaire de marchés organisés, afin d'élargir notre marché,

l'assiette de notre fiscalité et l'épargne privée, bases de financement de notre développement industriel.

— *Commercialisation:* Les produits de nos industries seront commercialisés sur le marché intérieur, dans la région, et sur le marché international.

b) Moyens mis en oeuvre:

— *Main-d'oeuvre:* Ce problème sera résolu progressivement par l'immigration de personnel étranger régional et la formation accélérée d'une main-d'oeuvre qualifiée lao appelée à remplacer les ouvriers étrangers.

— *Encouragement des investissements privés nationaux et étrangers:* L'application des différents textes officiels pris dans ce domaine sera maintenue par exemple l'exonération de droits de douane sur les biens d'équipement, l'importation de ces biens à financer par des devises au taux officiel, protection temporaire des industries naissantes et liberté de transfert de bénéfices de revenus de travail et de règlements de services.

— Capitaux nationaux et étrangers, privés et publics:

Les capitaux nationaux privés restent encore réticents face aux possibilités d'investissement dans les secteurs essentiels de notre économie. Pour pallier cette insuffisance notre Gouvernement mettra son accent sur la mise en oeuvre de capitaux publics nationaux et étrangers: budgétisation des investissements et accords d'assistance bilatérale (dons et prêts) pour le financement interne et externe de notre programme, crédits d'équipement. La mise en oeuvre de capitaux publics constituera la base de notre développement industriel, dont l'élan sera soutenu par la suite en partie par des capitaux privés étrangers grâce aux accords de garantie appropriés.

3. Comme a souligné notre Ministre du Plan dans sa déclaration générale du 7 Décembre, le tableau de nos réalisations industrielles reste encore peu brillant. Ceci pour des raisons qui sont liées en grande partie à la situation politique qui prédomine dans cette partie de l'Asie.

Actuellement l'impact industriel se cantonne surtout dans la région de Vientiane et couvre les activités suivantes:

- rizeries
- mines d'étain (Moyen-Laos)
- scieries
- Manufactures de cigarettes
- Fabrique de boissons gazeuses (Vientiane et Moyen-Laos)
- Fabrique de sandales et chaussures en caoutchouc
- Fabrique d'allumettes.

Le démarrage de ces activités s'est effectué il y a quelques années et leur part dans notre produit national brut va croissant d'année en année au grand bénéfice de l'agriculture (production de paddy, culture de tabac) et du secteur minier.

4. Dans la perspective à moyen terme, nous comptons consolider d'abord l'industrialisation naissante de notre économie et élargir nos activités industrielles dans les domaines insuffisamment exploités suivants:

- ressources en étain et en énergie
- ressources forestières
- matériaux de construction et de bâtiment
- petite mécanique
- produits alimentaires

L'accentuation de notre impact industriel fournira à long terme les bases d'une planification régionale de l'industrialisation préconisée par la CEAE0. Au sein de cette action, il est prévu la création d'industries grâce aux concours régionaux en matières premières, en hommes, en capitaux, et dont les débouchés seront d'ordre régional et même mondial. Ces industries intéressent le Laos, dans certains cas très particuliers, en fonction des matières premières dont il dispose et de ses moyens énergétiques. La production de ces industries sera destinée à l'exportation dans les pays immédiatement voisins, dans une zone géographiquement limitée par les possibilités de transport, et à condition que ces pays soient disposés à concéder au Laos des avantages et facilités d'échange appropriés. L'exportation de produits à l'ensemble de la région ne peut être envisagée que dans le cas particulier d'une industrie sidérurgique lorsque sera possible la mise en valeur des gisements de fer de Xiengkhouang. Cette mise en oeuvre comporte essentiellement:

a) *La production d'énergie:* Le Laos dispose d'un potentiel hydro-électrique important. L'aménagement de certains sites est de nature à fournir une énergie abondante et à bon marché (Nam Ngum, Nam Theune etc.).

b) *L'extraction de minerais de fer et industrie sidérurgique:* Les importants gisements de fer de la région de Xiengkhouang (Nord-Laos) — de l'ordre du milliard de tonnes de minerai à haute teneur, à ciel ouvert — permettent d'envisager:

- l'approvisionnement régional en minerais de fer
- la création d'un complexe sidérurgique basé sur l'électro-metallurgie

c) *Création d'un ensemble d'industries chimiques* basées principalement sur l'action de l'énergie électrique appliquée soit aux composants atmosphériques, soit à certaines matières premières existantes au Laos — dérivés azotes (engrais) du sel et de la houille. Le financement de ces industries nécessite l'intervention de capitaux privés étrangers, par des crédits à l'équipement et des prises en participation à l'échelle régionale. Notre Gouvernement est tout disposé à coopérer dans ce domaine — en particulier en matière d'accord de garantie de prêts et d'investissements.

5. Notre politique de développement industriel s'attache en gros à renforcer nos bases nationales déjà existantes, afin de mieux préparer notre pays à une intégration industrielle sous-régionale et régionale.

Conscients de l'impérieuse nécessité d'une planification régionale industrielle, afin d'éviter tout gaspillage de ressources, nous estimons toutefois que notre programme actuel introduira une cohérence accrue dans la poursuite de ce dessein, tout en cherchant à éliminer les distorsions qui peuvent naître de l'inégalité économique à l'échelle régionale.

Malaysia

Economic progress in the Malaysian territories during the past decade has been impressive but the economy will face difficult problems in the years ahead. The present population growth rate of over 3% in Malaysia implies pressure in the economy arising from increase in population and in the labour force. In short the problems of keeping unemployment from rising and keeping per capita standards of income from falling will be substantial, not to mention the ever present need to achieve improve standards of living.

At the same time while these problems become more pressing, the prospects for income growth are being clouded by uncertainties in the markets for natural rubber and a number of other traditional sources of export earnings. The Malaysian economy is heavily dependent on rubber, tin and timber which together accounts directly for about 9.2% of the Gross National Product and about 23.8% of total exports. In order to reduce this dependence on a few primary commodities, which are subject to significant world price fluctuations, and to diversify the economy, the Government has launched an industrialization programme based on private enterprise.

The contribution of the manufacturing sector to the Gross National Product is around 9% in the States of Malaya, 2½% in the State of Sarawak, and 2% in the State of Sabah giving an overall average of 4.5% of the Malaysian GNP. The major part of the manufacturing sector consists of pioneer industries which will be able to generate the funds totalling \$731.6 million channelled into investment in about 133 companies set up in response to the income tax relief incentive. Concomitant with the establishment of these new industries is the further development of the more traditional industries.

Initially Malaysian industries will aim at import-substitution but it is hoped that as they expand they will also manufacture for export. Though it is fully realised that the primary export sector will still remain a pillar to the country's economy for some time to come, the Government believes that industrialisation is the new frontier in the dynamic approach to the economic development of the country.

The Malaysian Government pursues a policy of free enterprise in industrial development and that of balanced economic growth and welcomes foreign investments particularly in joint venture with local interests. A favourable investment climate has been established the foundation of which is provided by the

existing political stability in the country and a well-developed infra-structure. Various policy measures taken to promote industrial investments included

- (a) the provision of relief from income tax up to a minimum period of five years through the Pioneer Industries Ordinance
- (b) minimum control in the repatriation of capital and earnings
- (c) adequate protection of foreign investments against expropriation
- (d) reasonable tariff protection for deserving industries
- (e) exemption from customs duties for machinery and raw materials
- (f) the provision of industrial sites in the States developed with basic facilities
- (g) the promotion of sales in the domestic market though according preference to local products in the purchase of goods by government and quasi-government bodies and by official publicity campaign through the radio and television exhorting the public to buy locally made goods, and
- (h) the promotion of sales in the export market through granting duty drawbacks.

As a result of the favourable investment climate created out of policy measures, Malaysia has successfully attracted M \$143.8 million from 17 countries to participate with local capital in joint venture projects in the country's industrial programme.

The Government is conscious of playing a more active role in industrial promotion and to achieve this it recently commissioned an internationally-known industrial consultant firm to undertake a general industrial investment possibility survey and specific feasibility studies which will include data on capital requirements, production costs, market sizes, investment returns and other such information which will be of great use to prospective investors.

When necessary the Government will participate with private industry in initiating industrial ventures which are too risky or too large for private industry alone to undertake.

Further feasibility and pre-investment surveys will be undertaken by the Federal Industrial Development Authority, the nucleus of which will be established in the near future. The Authority will also directly participate in the promotion of industries, the servicing of industrial estates in Malaysia and the evaluation of industrial projects.

Working in complementarity would be the proposed National Institute for Scientific and Industrial Research which would comprise among others, a Standards Institute, an Institute of Industrial Technology and a National Testing Establishment. The Standards Institute of Malaysia would ensure that both local raw materials and finished products conform to an internationally acceptable standard. The

Institute of Technology would evaluate the types of indigenous raw materials likely to form the basis of new industries, utilisation of waste and by-products and specialised analytical services. For the purpose of controlling and testing manufactured products the National Testing Establishment will be created.

The shift in emphasis of the Government's policy on industrial development was further reflected in the adjustment in the levels of existing tariffs in the country. The tariff structure which has hitherto been basically utilised to raise government revenue has now been adjusted to afford adequate protection to locally manufactured goods. This would ensure local industries to gain an effective foothold on the domestic market. Besides adequate protection in the home market, Government is also examining ways and means to stimulate export of local manufacture.

During the past six years the Governments of the component States of Malaysia embarked on a policy of industrial development, each year had witnessed a marked progress in its industrialization programme. In fact the country, by merely establishing import-substituting industries has built up a front line of industries serving directly consumers markets and the construction industries and drawing up semi-manufactured imports and locally produced primary products as raw materials for their manufacture. Such industries, for instance the manufacture of chemical products, metal products, textiles and part manufacture of machinery and equipment through developing 'backward demand' of imported semi-finished materials and the building material industries making use of local resources by their activities will exert a powerful stimulus on the growth of intermediary 'second line' and satellite industries. The more important of the latter are an integrated iron and steel industry, wheat milling industry, glass industry etc.

The achievements of Malaysian industrialisation programme measured in terms of the number of pioneer certificates granted and capital invested are fairly impressive. To date Pioneer Certificates have been granted to 133 industrial firms in Malaysia of which 110 were in the States of Malaya, 11 in Sabah, and 12 in Sarawak. Taking Malaya as an example, in 1960 55 Pioneer Certificates were granted compared to the present 110. In terms of capital investment, the 133 pioneer companies have a total nominal capital of M\$731.6 million of which M\$690.9 was for companies in Malaya, 14.9 million for Sabah and \$25.8 million for Sarawak.

Although a major part of the investment has been concentrated in the light consumer industries, the number of employment opportunities created have been substantial. Of 133 companies, almost 75 per cent are in production and at the moment employing 12,000 workers. They would increase to 15,000 when the companies are in full production.

The benefits that have accrued to the economy include the reservoir of technical, managerial, and

engineering skills which have been transferred to our local force, Foreign participation has ensured the employment of the latest and modern techniques of production thereby securing optimum benefits from our limited resources at minimum costs.

Malaysia, as stated earlier, presents an attractive field for industrial investment because of the presence of rich raw materials resources, and excellent infrastructure facilities. Sabah and Sarawak, unfortunately under the colonial rule, have not built up adequate facilities to attract substantial local and overseas capital. Conscious of this imbalance Government under the First Malaysia Plan proposes to devote effort to establish the necessary pre-conditions for economic take-off into self-sustained growth in the Borneo States. Substantial expenditures would be earmarked for the development of the basic infrastructure facilities as a stimulus for development of industries utilizing locally available raw materials in the first instance.

In the States of Malaya, funds are being made available to the State Governments for the development of industrial estates in their respective States on similar lines as those successfully achieved at Petaling Jaya.

In the field of regional and sub-regional cooperation, Malaysia, in conjunction with the other members of the ASA (Association of Southeast Asian States), Thailand and the Philippines, has already made preliminary studies towards cooperative industrial development including defining industries where joint ventures are possible and the establishment of a free trade area with the possibility of ultimate common market arrangements.

Malaysia believes that in regional cooperation it is wiser to hasten slowly and that the objective can be achieved through the basis of sub-regional cooperation.

Nepal

Regional economic cooperation which has grown quite considerably among the ECAFE countries over the last two years is one of the important means for achieving a consolidated and even progress. While it is eminently desirable to have an ideal regional or sub-regional cooperation, the realization of which all parties should strive for, it will however take time to accomplish this. However, during the process of growth it will be possible to implement many partial cooperative measures which will not require much sacrifice on the part of participating countries and yet assist materially and rapidly in their economic development. Furthermore it may not be necessary for individual countries to participate in all these measures; each may select those which are of special interest to it. The Lower Mekong Project has, of course, been a brilliant example of sub-regional economic cooperation. Cooperation between Nepal and India on the Gandak and Koshi river projects on a bilateral basis provides another good example.

ECAFE should continue its detailed studies in the member countries on those projects in which the prospects for intra-regional, regional and sub-regional joint industrial ventures seem to be bright.

As the copy of the "Country Study" on Nepal contributed by His Majesty's Government of Nepal in March 1965 has already been circulated to the distinguished delegates and participants of the Asian Conference on Industrialization it will be proper here to limit the review to the recent progress made by Nepal in the field of industrialization.

Though Nepal started late in the process of industrialization its pace during recent times has been quite impressive which the following table will indicate:

GROWTH OF INDUSTRIAL FIRMS WITH THEIR CAPITAL INVESTMENT REGISTERED WITH HMG INDUSTRIES DEPT.

Type of Industrial Firms	Up to FY (1961-62)		Up to FY (1964-65)		Rs (in '000) Percentage Increment	
	Number	Capital	Number	Capital	Number	Capital
Private Firms	816	43,884	2,335	100,951	186.2	130.0
Private Limited	50	25,660	135	150,767	170.0	487.6
Public Limited	19	53,140	21	54,840	10.5	3.2
Total	885	122,684	2,491	306,558	181.5	149.9

A number of existing industries have been modernized and also new industries as indicated below have sprung up in private sector:

Improved Industries	Newly established Industries
Jute	Sugar
Lumber	Textile
Printing Press	Metal crafts
Rice oil and flour mills	Catechu & training
Mechanical workshop	Pharmaceutical
Hotels	Biscuits & Confectionery
	Hotels
	Match factories

The Nepal Industrial Development Corporation has played an encouraging role in the promotion of private investment. During the first year of operation the Corporation gave financial assistance amounting to Rs. 411,000 but by the end of FY 1964-65 the annual rate of financial assistance went up to Rs. 24,623,000. During the same period, borrowers' investment increased from Rs. 368,000 to Rs. 19,410,000.

Achievement in the public sector is equally remarkable. During the past three years three factories were set up: a sugar mill with an annual capacity of 12,000 tons, a cigarette factory with an annual production capacity of 2,000,000 sticks, and a shoe factory with an annual capacity of 30,000 pairs of shoes and 20,000 sheets on single shift basis.

In order to develop small scale industries and to foster decentralized pattern of industrial growth industrial estates have been installed and expanded.

Units	Industrial Estates	No. of Building	Industries
1	Balaju Industrial District	13	7
2	Patan Industrial Estate	22	17
3	Hetaura Industrial District	—	—

In June this year we have launched upon our third plan for economic and social development of five year's duration. Due importance has been given to industrial development in the current plan and an allocation representing 57.8% of the total outlay in the public sector has been set aside for industrial development in the private sector. For industrial development in the public sector, 7.2 per cent of the public investment target of the plan has been earmarked. The plan aims at the diversification of our predominantly agricultural economy in order to attain a balanced growth, in close coordination with agrarian reform which includes *inter alia* a special provision for compulsory saving. It is expected to enhance industrial investment of the landed class. Priority has been accorded to the following industries:

1. Industries based upon locally available raw materials and industries substituting imports.
2. Industries producing materials for development works.
3. Export oriented industries.

Among the industries to be established during the plan — the current five-year plan period — it has been envisaged to set up certain important consumer goods industry to substitute import and a few basic industries if possible.

Also an extensive industrial feasibility programme will be conducted with the help of the United Nations Technical Assistance programme.

Though forging ahead with full confidence of success, Nepal like other developing countries of the region has been facing many problems in the implementation of her programmes of industrialization. As the net domestic saving constitutes an insignificant portion of the national income in Nepal the problem of closing the gap between the needs and resources has been growing serious. It has limited the propensity of enservicing foreign debts. Also lack of adequate knowledge of resources within the country poses a problem of considerable magnitude. Management skill and technical know-how yet remains far from reach. The problem is more aggravated due to absence of scientific manpower survey in the industrial sector.

Due to low level of infra-structure development and of income, it has become difficult for the domestic market even to support most of the light industries. Moreover because of the attitudes and policies of relatively advanced countries pertaining to the liberalization of its trade the problem has become more serious. Regional cooperation will have no meaning unless the terms of trade are liberalized.

One of the major problems of the developing countries like Nepal is the market for their products, specially for manufactured goods. Generally, goods produced in the developing countries in the initial stages are not of the same quality as those produced in relatively advanced countries as a result of which such goods do not get easy market. Besides there are

examples which prove that sometimes a less developed country is not given reasonable help in getting a market for her products.

The mention of the common problem of the land-locked countries as a whole cannot also be neglected while dealing with the problems of industrialization in Nepal. This should call for support from all for its solution. Since ocean and railway freight rates are important factors that influence production costs of manufactures of land-locked countries, special concession and facilities in this matter should be made available to those countries. In land-locked countries like Nepal continuous air service is of great importance and therefore its smooth operation should always be ensured by the neighbouring countries. Again as the import of land-locked countries is tied up with a particular exporting country and since most of the commodities that are basically needed for industrial development are in short supply, the situation would be worse when the export earnings of these land-locked countries are in non-convertible currency and such countries are helpless to procure capital import from other countries even though their balance of trade on the whole is more or less favourable.

In spite of the top priority given to infra-structure development in our national plan, Nepal is severely handicapped in the promotion of industries due to its low level of development. Also the high cost factor for developing hydro-electricity supply industry has prevented the development of our abundant hydro-graphical resources. Besides, this small market for power within the country will make the installation of the plant unfeasible.

Among other problems lack of adequate research facilities, high cost of production, quality control and standardization, and efforts for promotion and publicity are the important ones.

Besides the problems indicated above, Nepal believes that one of the major bottlenecks towards the acceleration of the pace of industrial progress is the lack of comprehensive and concentrated efforts at joint projects on bilateral or multi-country basis. Such efforts will be more useful through sub-regional grouping of countries. With the support from the ECAFE, such grouping among Afghanistan, Burma, Ceylon, India, Nepal and Pakistan for example seems to be well within reach of Nepal. This arrangement will also provide mutual benefit by supporting the industrial development of the respective countries through resource availability and the provision of market.

Nepal can make tremendous contributions towards cooperative or joint programmes in the following fields:

Hydro-electric Power Supply Industry — There is a provision for an integrated power system development with regional or sub-regional cooperation in Nepal. A feasibility survey of the Kannali River Project has already been completed with the assistance of the United Nations Special Fund. It might be

mentioned that this project if taken on a sub-regional basis would help Nepal and many of her neighbours.

Other Industries—There is a great potential for developing industries like nitrogeous fertilizers forest based industries and the herbs processing industries in Nepal with joint co-operation on bilateral regional or sub-regional basis.

His Majesty's Government of Nepal strongly believe that mutual cooperation among the nations specially in the field of industrialization can expedite and support the process of industrialization and can contribute to regional and intra-regional trade development.

New Zealand

Pattern of Industrial Development

Since 1960 when the Industrial Development Conference discussed the problems confronting the development of secondary industries in New Zealand important changes have taken place, not least amongst which has been the awakening of public interest in the nation's economic future. Important developments were the institution in 1961 of the Tariff and Development Board which provided commerce and industry with an independent and authoritative body for the reference of appropriate problems and the framing of recommendations to Government. Criteria for industrial development were devised by the Board and copies of their report have been circulated to member countries of ECAFE.

Arising out of recommendations made at the Industrial Development Conference was the passing of the Development Finance Corporation Act in 1964. This corporation has now been established and the capital of £1 million has been subscribed by both government and private participants. The main function of the corporation is to provide finance for the development of new industries or the expansion of existing industries in cases where finance is not available through normal channels on reasonable terms.

Other changes in the pattern of industrial growth include:

Regional Development: As industrial development has grown in depth and complexity, population and industry have centred primarily at a few points which have tended to grow at a faster rate than other parts of the country. Measures have been adopted to encourage a more even pattern of development.

Foreign Investment in New Zealand Industry: While the advantages connected with foreign capital are fully recognized some concern has been expressed at the number of takeover bids by overseas interests and at the mounting level of overseas investment. The Overseas Takeovers Regulations 1964 lay down procedures under which notification is required where an offer or a proposed offer would give the offeror control of 25 per cent or more of the voting rights in a New Zealand company. Under these regulations

permission for an offer to proceed can be withheld where the offer does not meet various criteria.

Size of Factories: New Zealand factories are predominantly small sized in terms of the number of employees engaged. In 1961-62 over 61 per cent of factories employed 10 or less workers. However, some slight movement is discernible in the establishment of larger factories. In 1963-64, factories employing over 50 workers numbered 674 or 7.2 per cent of the total.

Pattern of Industrial Employment: A marked change in the pattern of industrial employment has accompanied the shift in emphasis from specialization in the agricultural sector to diversification in manufacturing industries. Employment in farming declined in the period 1955 to 1965 by 8.5 per cent or by approximately 11,000 workers. At the same time the total labour force has increased by nearly 188,400 and these extra workers together with the 11,000 displaced from farming have found employment mainly in the service industries where employment increased by 31.5 per cent from 361,000 to 474,600 and in the manufacturing sector where the increase was from 198,400 or 33.9 per cent.

Reliance on Imports: Industrial growth in New Zealand has continued to be paralleled by a high dependence on imports. The provisional value of imports in 1964, at £317 million on a current domestic value basis, is the highest recorded, being £21 million above the previous record total of £296 million in 1963. Notable increases have occurred in imports of chemicals, machinery and base metals, reflecting the growing raw material requirements of New Zealand industry, and transport equipment.

Export Based Manufacturing Industries: The pattern of industrial development in New Zealand has been marked by successful attempts to both increase export earnings and to diversify industries in the export sector. Manufactured exports from New Zealand are finding larger markets overseas.

Limited Free Trade Area: In August 1965 a limited free trade agreement was signed between New Zealand and Australia. The agreement is in specified items covering some 60 per cent of trade between the two countries. In addition there is provision for a joint review of goods not subject to the Agreement to consider their possible inclusion; the first review is to take place in two years time and thereafter will be on an annual basis. This could have important repercussions on the pattern of industrial development in New Zealand.

Development of Major Manufacturing Industries:

There are plans for a number of basic industries which, when fully established, will greatly strengthen New Zealand's industrial base.

(a) *Iron and Steel:* In March 1965, it was announced that a New Zealand steel industry was to be established in the South Auckland area. The plant is expected to be in operation by 1968. A tentative

programme for development up to 1983 has been drawn up involving total investment of £56 million. The initial products of the industry will be billet wire rod and galvanised sheet. By 1978 it is estimated that annual savings in overseas funds effected by this industry will amount to £20 million.

(b) Aluminium Smelting: The Government is proceeding with the £39 million development of the hydro-electric power potential of the Manapouri-Te Anau lakes and rivers system and has given an undertaking to Comalco Aluminium Ltd. to provide power from this source for the purpose of developing an aluminium smelter in Southland. The vast industrial undertaking planned by Comalco would process alumina imported from the Weipa refining plant in Queensland, for sale on the world market. The capital cost of the smelter, which would provide direct employment for 6,000 persons, would be upwards of £60 million. The eventual output would be of the order of 250,000 tons of aluminium ingots a year.

(c) Natural Gas: Natural gas was found in useful commercial quantities in 1959. It is estimated that the field could support a daily production of treated natural gas of about 35 million cubic feet. Proved reserves are expected to last 20-25 years while proved and possible could last 30 to 35 years.

In August 1964 overseas consultants engaged to appraise the potential of the Kapuni natural gas field and possible uses of the gas, presented their report. The consultants subsequently prepared a report on marketing prospects for the natural gas, and two other overseas firms were engaged, one to assess the natural gas and associated reserves of the Kapuni field, and the other to prepare a feasibility study for a natural gas transportation system for the North Island.

There are two proposals for the use of the gas after the condensate which will be used in the oil refinery has been taken off; the uncleaned gas could be used to produce electricity, a course favoured by the oil companies who discovered the reserves; or cleaned gas (with carbon dioxide removed) could be distributed by pipe line as a premium fuel.

New industries recently established and the expansion of existing industries are making a significant contribution to industrial development in New Zealand.

(d) Oil Refinery: In May 1959 the Shell Co. of New Zealand Ltd. announced its plan to build an oil refinery in New Zealand. The refinery commenced production in June 1964 and is expected to have an output of 1.88 million tons a year of refined products from an annual throughput of 2 million tons of crude oil.

(e) Textiles: Two plants established at a cost of £4 million to manufacture nylon yarns and fibres, are now in production. Because of their capital intensive value, their relatively low labour requirements, and their ability to achieve substantial savings in overseas funds (£2 million a year), they should be able to make a worthwhile contribution to New Zealand's industrial development. The capacity of the woollen

industry has been increased by the installation of additional plant. Expansion has also taken place in the production of machine knitting yarns, woven labels, slide fasteners, tapes, elastics and processed nylon yarns.

(f) Cement: Expansion continues in the cement industry and, with projected capital investment amounting to £6.9 million, during 1964-65 it is estimated that the capacity of the industry will rise by some 50 per cent.

(g) Plastics: The plastic industry was able to maintain its vigorous growth in 1963-64 without a corresponding increase in the expenditure of overseas funds, because of the downward trend in world prices for plastic raw materials. There was a substantial increase in the production of foam plastic, both rigid and flexible, and of polyvinylchloride sheet to meet (in the main) the growing demands of the motor-vehicle industry. Polyurethane foam, because of its properties of resilience and buoyancy, made further inroads into the market for polystyrene in some industries, notably domestic refrigeration. In addition, the use of plastic containers and packing materials increased at the expense of traditional materials. The plastics industry also featured in greater exports: increased quantities of plastic film and bags were used in exporting milk powder and rindless cheese; film was exported to the Pacific islands for the protection of bananas purchased by Japan; and a small but promising trade with Australia was established in plastic labels, skirting boards, and stair treads. The production of vinyl flooring, PVC rainwater pipes and guttering, unsupported plastic sheeting, and injection moulding of plastic soles for shoes began in 1964 and 1965.

(h) Metal Working Industry: There have been important expansions in the foundry and forging fields such as pressure casting and drop forging. This is making available many components for other domestic industries. There has also been continued expansion in the manufacture of such products as metal fasteners, bolts and washers. Cast iron soil pipes will shortly be made in New Zealand.

(i) Electrical Equipment: The increase in the range and depth of manufacture in New Zealand continues. Manufacture of a greater range and volume of power transformers, insulators, electric lamps, motor starters and fuse holders amongst other goods, began during 1964.

(j) Glass: The manufacture of glass in New Zealand has been reorganised to use the Pittsburgh process. The company is now meeting New Zealand's requirements of sheet glass in the principle sizes between thicknesses of one twelfth of an inch and one quarter of an inch inclusive.

(k) Chemicals: Five major expansions of existing superphosphate plants were undertaken in 1964 with each plant increasing its capacity by at least 100,000 tons of fertilizer. One expansion which involves the replacement of obsolescent plant as well as increased capacity, will require the installation of New

Zealand's largest sulphuric acid unit. Other major additions to the range of chemical products manufactured were — the production of copper oxide by the electrolytic process, the manufacture of a further range of phenolic resins, the processing of concrete additives, formaldehyde and urea formaldehyde and the further manufacture of pharmaceuticals.

(l) Foodstuffs: Diversification in the food and drinks industries included the production of more soluble forms of spray-dried milk powder and concentrates for tomato paste and canned pineapple.

(m) Timber: Additional capacity has been established for the production of veneers, particle board, coreboard, sawn timber and wood chips.

(n) Fishing: The Government has introduced legislation to encourage investment in the industry and the Fishing Industry Board was established with £1 million to advance for investment in the industry. In addition, in September 1965 it was announced that, on the recommendations of a Fishing Industry Loans Committee, the Government is to guarantee mortgages to the value of £500,000 and up to £300,000 for new fully equipped fishing vessels.

Agriculture

Although there have been significant advances in manufacturing during the last decade, New Zealand remains primarily a producer of agricultural products which comprise by far the greater part of exports. In the three years 1962 to 1964 wool, dairy produce, meat, and by-products together accounted for up to 95 per cent of total exports. It is therefore important that farm production should continue to expand to ensure that exports increase at the rate necessary to sustain New Zealand's economic growth.

Pakistan

The industrial policy of Pakistan has been and will continue to aim at rapidly expanding the production of consumer, producer and exportable goods, improving the industrial efficiency and quality of local products and accelerating the development of the less developed areas. A greater reliance is placed on the private enterprise to achieve these objectives. The entire industrial field, except for the manufacture of arms and ammunitions of war and production of atomic energy, was left open to the private sector. Incentives and facilities have been provided to encourage private entrepreneurs. Import of raw materials and spare parts have been further liberalized and foreign exchange has been specifically provided for the balancing and modernization of existing industries. Foreign private capital has been encouraged, particularly in the fields involving huge investments and difficult technological processes.

With a view to obtaining maximum output the Government has distributed industries between the central and provincial Governments. The Central Government is, however, responsible for overall planning and cooperation of industrial development, the

fixing of targets and priorities, determination of the levels of production and specification of standards and quotas for export.

In addition, the following industries are the exclusive responsibility of the Central Government:—

- (i) Industries connected with defence.
- (ii) Manufacture of arms.
- (iii) Industries owned only or partially by the Central Government for petroleum and mineral oil.
- (iv) Nuclear energy.

The Provincial Governments are responsible for implementing the industrial policy of the Central Government and exercising jurisdiction over all industries, other than those mentioned above, already established or to be established in the country.

Pakistan has so far launched two 5-Year Plans (1955-60 and 1960-65). The capital investment in the first-Year Plan was envisaged at Rs. 1,080 crores (33%) in the private sector and Rs. 750 crores (67%) in the public sector.

The Plan envisaged investment of about Rs. 300 crores in large scale industries of which Rs. 270 crores would be for new capacities and Rs. 30 crores for modernization. Of these amounts the private investment was allocated Rs. 126.8 crores and public investment Rs. 68.0 crores, mostly through Industrial Development Corporation. A sum of Rs. 8.65 crores was also provided for public investment in small scale industries. In the plan period the most satisfactory was the performance of the private sector which was largely responsible for the annual industrial growth rate of 12% achieved in the period.

The second 5-year Plan was more ambitious and the total outlay was Rs. 2300 crores against that of the first 5-Year Plan of Rs. 1080 crores. Investments in public sector were estimated at Rs. 1240 crores and in the private sector at Rs. 680 crores. The balance of Rs. 380 crores was to be used in the semi-public sector.

The implementation of the second 5-Year Plan was most satisfactory. Its achieved growth rate was 5%. Industrial growth rate levelled off at 13%.

The third 5-Year Plan which started from July 1965 is designed to take the country towards self-sustained economic growth. The plan envisages an overall development outlay at double the rate of investment achieved during the second plan. The plan allocated Rs. 1288 crores or 24% of the plan outlay to the industrial sector out of which Rs. 830 crores would be in the private sector.

The major aim of the industrial programme during the Third 5-Year Plan would be to shift the emphasis from consumer goods industry to the establishment of basic capital and producer goods industries and to reduce the country's dependence of foreign assistance for the import of capital goods. The industries will include steel, heavy machinery including agriculture and electrical machinery, transport equipment and heavy chemicals. Another important objective would be to develop additional capacity for

export in all those fields where the country has natural or acquired advantage instead of confining the effort to import substitution such as fertilizers, petrochemicals, pumps, cement, sugar, paper and newsprint, leather goods and fruit processing besides the traditional manufacture such as cotton, and jute textile will be specially encouraged.

In all industrial development programmes, the importance of the economically viable, modern small scale industries has always been kept in view. The assumptions in industrial programmes have been that new small and medium-sized units will be encouraged. It has, however, at the same time been recognized that resources cannot be wasted by permitting at the costs an industrial pattern dominated by small enterprises. Essentially, where modern technology and large scale operations were not indicated by over-riding technical and economic considerations, choice has been in favour of small and medium-sized units.

To attract private capital to the industrial sector, besides different kinds of fiscal concessions such as tax concession, tax holidays, etc., the Government set up a Tariff Commission in 1950 to review the cases for granting protection to the indigenous industries and granted protection to numerous industries. With a view to helping private enterprise in industrial ventures such as paper, jute, heavy engineering, chemicals, etc., the Government established the Pakistan Industrial Development Corporation to undertake investment in these fields with or without the participation of the private capital. The Pakistan Industrial Development Corporation was bifurcated in 1962 into two autonomous bodies, the East Pakistan Industrial Development Corporation and the West Pakistan Industrial Development Corporation to accelerate the process of industrialization in both the wings of the country. The establishment of Industrial Development Bank of Pakistan and Pakistan Industrial Credit and Investment Corporation was another measure to assist the private sector in securing cheap and liberal credit facilities.

Apart from Pakistan's own industrial and economic progress she is perhaps the first to enter into regional cooperation agreement in Asia. In pursuance of her desire and keenness for regional economic cooperation, Pakistan joined in 1964 with Turkey and Iran in Regional Cooperation for Development Agreement in a closer economic association. During the first year of its existence RCD has achieved some tangible results which augur well for the future. It has undertaken 19 selected industries for joint ventures, which have been allocated between the three countries for conducting feasibility and other studies. The Joint Ventures Committee of the RCD will examine the various studies and take decisions on implementation of the joint projects. In addition the three countries are engaged in discussion on the establishment of

petrochemical industries, the decision on which is expected to be taken shortly.

The other important measures adopted by RCD are abolition of visa system among the three countries, an agreement on tourism, reduction of service postage rates and telephone and telegram rates. Trade agreements among these countries have also been signed. It has also been decided to establish a conference of shipping companies of these countries. The constitution of joint chamber of commerce and industries to be set up by the Chambers of Commerce of the three countries has already been approved. The possibilities of establishing a RCD Commerce Bank are being explored and the question of establishment of a joint airline is under discussion. A general agreement on technical cooperation has been approved. All these steps will no doubt foster and develop intra-regional trade and investment opportunities.

Pakistan has an RCD type agreement with Indonesia also. Believing that cooperation is an important factor in accelerating the pace of development in a region and in promoting peace and stability, Indonesia and Pakistan established the Economic and Cultural Cooperation Organization (IPECC). Under the agreement with Indonesia discussions are going on about setting up jute and coconut oil mills as joint ventures to be located in Indonesia.

Discussions are also going on technical cooperation, air transportation, shipping, post, telegraph and tele-communications, banking, insurance, cultural cooperation, cooperation between news media, trade and joint ventures. The discussions of the Economic Council on the subjects quoted above are taking final shape. It is hoped that economic and cultural cooperation between the two countries will go a step further toward the development of trade and industries between the two countries and will be an example to other developing countries of regional cooperation in industries on joint ventures.

Pakistan is a founder member of the Asian Productivity Organization whose regional efforts in the field of productivity promotion have begun to bear fruit. Pakistan has been in the forefront of APO activities setting up inspiring example of regional cooperation in the productivity field.

Progress and problems of industrialization:

If the growth rate of GNP is analyzed, it will be observed that the annual growth rate of large scale industry in Pakistan over the last 15 years has been as high as 15%. The rate, however, came down to about 12% per annum in the last five years. This contrasted sharply with the slow rate of growth in agriculture (1.6%). However, the divergent rates between agriculture and industry have led to a structural change in economy. The contribution to GNP is expected to decline from 60% in 1949-50 to about 48% in 1964-65 whereas that of manufacturing is expected to increase from 7% to 13%. The most

decisive increase has been in the contribution of the large scale industrial sector: its share has increased from 1.5% to 7.4% in the past 15 years. The economy is becoming progressively industrialized and its preponderant dependence on agriculture is diminishing.

There has been a remarkable acceleration in gross investment in the last 15 years: it was about four times as high in 1964-65 as in 1949-50 in terms of constant prices. Most of the investment was, however, used for the creation of social and economic overheads. In fact as much as 60% of the total investment was devoted to the expansion of facilities in the fields of water and power, transport and communication, housing, education, health and other social services.

Domestic savings also increased appreciably during the last 15 years, growing at the rate of 6% annually. By end of 1965 they are expected to increase by 9.5%. The marginal rate of savings up to 1964-65 is expected to be about 15%. The acceleration in the rate of savings was sharp during 1960-65 because of the textile boom in the earlier period and the introduction of liberal import policies.

The Third 5-Year Plan (1965-70) aims at achieving an increase of 30% in GNP which works out to an annual compound rate of 5.4%. Industry is likely to continue to be the leading sector and the projection is for an annual growth rate of 10%. The capital output rate in the Third Plan is postulated at 3:5.

Investment during Third 5-Year Plan is expected to increase by about 53% which implies an annual compound rate of increase of about 9%.

In regard to domestic savings the Third Plan postulates a target of 23% for the marginal rate of increase of about 9%.

In regard to domestic savings the Third Plan postulates a target of 23% for the marginal rate of saving. A high marginal rate of savings is implicitly in the targets set for additional exports and imports. About 62% of the additional imports in 1965-70 will be of capital goods and raw materials thereby ensuring that additional export of about Rs. 500 crores proposed in the Third Plan will be mainly transferred to the investment through the balance of payments mechanism.

Problems

It is noteworthy that the measures taken by the Government were largely responsible for attracting substantial private capital in the industrial sector. Notwithstanding the encouraging response from this sector difficulties have been faced in attracting it towards capital intensive industries such as heavy engineering including iron and steel, ship building, heavy chemicals, etc. This can be attributed to heavy

investment outlay involved in these projects and delayed returns from them.

Private capital is also shy towards certain manufacturing industries due to the scarcity of spare parts and raw materials. A part of the requirements of these industries for raw materials and spare parts is being made through the assistance of friendly countries in the form of aid and loans.

Suggestions for cooperative actions in industrial development at sub-regional, regional and inter-regional level.

Pakistan fully recognizes the necessity of the establishment of large scale industries on regional basis as joint ventures. She believes that national savings of most of the developing countries are inadequate for investment in large scale industries. She feels that if the developing countries can harness their national savings and pool their resources for the establishment of large scale industries, they can achieve to a great extent their objectives.

Keeping these in view Pakistan has entered into Regional Cooperation Agreement with Iran and Turkey and in IPECC with Indonesia, the aims and objectives of which have already been elaborated. Pakistan will welcome the other countries of identical views to join RCD.

The Philippines

Problems and Progress of Philippine Industrialization

The Philippines is a developing country. In the process of development, industrialization is a necessary step. We have embarked on the process of industrialization and we would like to mention briefly the problems and the progress that we have made.

Problems of Philippine Industrialization. The problems that are included here are economic in nature. The first problem is foreign exchange. Forty-two per cent of our industries are now engaged in miscellaneous industries which range from tobacco manufacture to metals. This preponderance of miscellaneous manufacture in our industrial structure is of relatively recent vintage. In 1938 and 1948, miscellaneous manufactures accounted for only 20 per cent of industrial activity while food processing accounted for 70 per cent. Unfortunately, the very rapid advance in the field of miscellaneous manufacture has taken place mainly in the finishing stages of processing. This has resulted in a consistently greater demand for foreign exchange as the production volume of these industries increased. Thus any policy undertaken to safeguard our external position which involves an indiscriminate tightening of imports must also take its toll on domestic industrial activity. The need is evident for implementing a clear-cut system of investment priorities which takes into account the coun-

try's requirements for a better vertical industrial integration both domestically and in the other developing countries of the ECAFE region.

The second problem is long-term capital financing. The inducements of import and exchange controls during the nineteen fifties were strong enough to keep several industries going even with a thin capital base. Since then, however, there has been a need for substantial readjustment and a broadening of this base. On top of this, the need for vertical integration and for filling the vital parts still lacking in our industrial structure entail capital requirements. Thus, the Philippine Government has encouraged the emergence and growth of development and investment banks. Moreover, it has attempted through the Loans and Investment Council to pool the resources of financial institutions controlled by the Government to meet capital demand as efficiently as possible. The establishment of the first integrated steel mill in the Philippines, for example, was made possible through the support and syndicated financing of the member institutions of the Loans and Investment Council.

Progress of Industrialization. Despite the problems that the Philippines has been confronted with, it has made progress towards industrialization. During the past decade the index of physical volume of manufacturing has risen at an average annual rate of 9 per cent; the consumption for industrial purposes of fuel oil and its equivalents has risen at 12 per cent each year. Moreover, there has been a consistent increase in the productivity of industrial labor which has reflected itself in an increase in the average individual payroll. In the middle fifties, the average value added per person in manufacturing at constant prices was ₱1,000 per year. In the early sixties, this had gone up to more than ₱1,400 — an increase of roughly 40 per cent. On the other hand, the average individual payroll has increased by 16 per cent between the middle fifties and the early sixties.

If it is true that no growth is satisfying unless productivity increases in its wake, and the ultimate test of progress is not so much whether an economy has produced more as whether it produces more out of the same resources, then the rapid growth of the industrial sector in the Philippines takes an added significance. Not only has the industrial sector increased its contribution to national income from 15 per cent in the middle fifties to 20 per cent in the early sixties, but it has also served as the prime mover of economic development.

But economic development does not take place in a vacuum. There are costs of development to which we cannot attach price tags. We shall certainly not make any attempt to quantify here the social costs that are involved as the industrial sector impinges on the rural areas and a new way of life characterized

by efficiency, self-interest, and competition replaces the traditional system of values.

Potentialities. Like other small and poor countries, the Philippines is potentially rich. In our forests and waters and under our mountains lies in abundance the stuff which makes up our natural wealth; the number of hands that is available to work this latent wealth is embarrassingly large and grows every year; we have succeeded in coaxing, both from the idle funds of our few wealthy countrymen and from the generosity of more fortunate nations, the capital investments that are required to tap our natural resources.

In spite of our efforts to industrialize, the markets for our manufactured products end at our national frontiers. This artificial limitation has become not only wasteful of present capacity but also a limitation to future opportunity.

Harmonization of Industrial Development Plans

The progress made so far is not sufficient. Hence we feel the urgency of harmonizing industrial development plans.

Here are our views on this subject.

1. The Philippine delegation agrees that the main limitation to industrialization in the smaller countries in the region has been the insufficient size of markets. Co-operation among countries is the fastest and most economical way of making up for this deficiency.

2. We, therefore, endorse in principle the harmonization of regional plans for the development of heavy industry. It should be noted that, initially, this need not involve more than a relatively small portion of the development plans concerned. The bulk of most development plans deals with matters largely internal to the country: food production, infrastructure, the provision of essential services such as education, and so on. Even in foreign trade, only a small portion of the region's trade is accounted for by countries in the region, with the possible exception of Japan. Only the portion of the various plans that concern heavy industry seem, therefore, to require regional harmonization.

3. In view of the political and other difficulties facing the harmonization of regional plans, the feasibility of this principle might first be demonstrated by a pilot project on a small scale, involving a single industry and two or three projects. In the meantime a formal procedure for exchange of information on development plans might be worked out: it is useful to know the plans of other countries when formulating one's own.

Machinery for Implementation

To implement the co-operative activity for regional industrial development, the Philippine Government submits the following:

A. Asian Conference on Industrialization

1. The Philippine Government concurs with the proposal of institutionalizing the Asian Conference on Industrialization as an organ of the ECAFE. A meeting of the member countries on three-year intervals will establish a formal channel for appraising each member of the progress and problems in industrialization for the region.
2. The Philippine Government further suggest that as a matter of policy greater participation be given to the private sector who will ultimately be responsible for implementing concrete projects. It is believed that such a policy will greatly increase the effectivity of the Conference.

B. Asian Industrial Development Council

1. The Philippine Government concurs with the proposal to create the Asian Industrial Development Council as the Executive Body of the Conference.
2. Since the goal of the Council is focused on regional industrialization, the Philippine delegation feels that the membership of nine (9) countries in the Council be explicitly limited to countries within the region.
3. The Philippine Government believes that the activities of the council (feasibility studies, industrial promotion, assistance in implementation) be concentrated in those areas which show promise for co-operation between two or more member countries. It is believed that the Council can be more effective by so concentrating its efforts.
4. The Philippine Government believes that possible confusion may arise from apparent overlapping of the Council's functions and the Industries Division. Since upon closer examination it seems apparent that *de facto* the functions of the Council and the Industries Division are closely intermeshed, it is suggested that:
 - a) The Industries Division be placed under the Council to serve as its technical staff.
 - b) The Regional Industries Promotion Centre be merged with the Council.

C. Industrial Development Corporations

1. The Philippine Government believes that the creation of Industrial Development Corporations can be an important tool for implementing industrialization goals in the region.
2. The Philippine Government believes that such corporations be created on an ad hoc basis only when a prospective project calling for co-operation between two or more member countries warrant their creation. Project proposals of this type should be submitted to the Council

for study and approval in order to get the official sanction of the ECAFE.

3. The Philippine Government also believes that participation in such corporations be open to non-regional countries in order for the project to avail itself of all possible assistance technically and financially.

D. Others

1. The Philippine Government has examined the possible overlap of function of the proposal and the Asian Productivity Organization (APO). It concludes that no overlap exists since the APO has concentrated on the upliftment of skills and technical know-how through its seminars, symposia, and study missions.

Singapore

The rate of Singapore's economic development is dependent, to a great extent, on the successes which she can achieve in accelerating the expansion of her industrial sector. It was in full recognition of this that the First Development Plan of Singapore, 1961-65, stressed the urgent need for the government to partake in an active programme to provide the basis upon which industrial development could be stimulated.

An important step in this direction was taken with the establishment of the Economic Development Board in August 1961 to serve as the Government's Agency for the promotion of industrial development. The Economic Development Board got down to the urgent task entrusted to it and within the short period of 4 years, since its inception, has succeeded in the building up of a strong industrial infrastructure. So far a total of 6 industrial estates have been developed, the largest among which is the Jurong Industrial Estate which when fully developed will cover an area of approximately 9,000 acres. The development of these industrial estates involves the provision by the Economic Development Board, inter alia, of a comprehensive network of roads, railways, port and telecommunication facilities, electricity, water, gas, sewerage, residential and community centres, factory buildings, etc. A great deal of care and expertise went into the initial planning of these industrial estates which, happily, have succeeded in bringing about maximum economies in the location of industries.

Aware of the growing requirement for industrial land in Singapore, the E.D.B. has launched a massive programme for the further development of several more industrial estates in the country.

Together with the provision of industrial facilities, the Economic Development Board has also succeeded in formulating and implementing a programme of incentives for industrial investment. These include, among other things, tax exemptions to new industries, duty-free import of machinery and raw materials, long-term financing at attractive terms, preferential purchase

of local manufactures by the Government, immigration facilities, complete freedom in the repatriation of profits and capital, etc. The Board's services also include the provision of quality testing of a wide range of industrial products undertaken by the Industrial Research Unit, the improvement of industrial design and packaging undertaken by the Product Design and Display Centre, the provision of extension services to small industries undertaken by the Light Industries Services.

These several functions of the Economic Development Board are further complemented by other organs of the Government to further widen the industrial base. In the field of labour relations the Government has established two Industrial Arbitration Courts to broaden and further strengthen the machinery for the amicable settlement of industrial disputes. In education, a shift in emphasis to technical and vocational education has been made in preparation for the country's future requirements for tradesmen, technicians and engineers. The educational budget has been strengthened to provide for the establishment of additional Vocational Institutes and the expansion of the Polytechnic.

Considerable progress has so far been achieved in Singapore's industrial efforts. Today the manufacturing sector accounts for about 17% of the gross national product. Over the past 3 years, more than 300 new factories have been established in addition to the previous 2,300 establishments; industrial output has more than doubled and employment in the manufacturing sector has increased by about 70%. By the end of 1965, Pioneer Certificates were issued to 145 new industrial firms with a total authorized capital of Malayan \$952 million. Among them these establishments manufacture a range of about 275 different products ranging from iron and steel bars, tyres, industrial chemicals, refined oil to a wide range of consumer goods like textiles, electrical appliances, confectionery products, etc.

Singularly important in Singapore's industrialisation efforts is the need to find new markets for the manufactures of her industries. To this end, she would welcome any move by ECAFE for the promotion of regional co-operation in trade. She would also support any move to bring about a further liberalization of the existing tariff barriers among the developed nations.

Singapore is happy also to note the great importance which has been attached by the First Asian Conference on Industrialisation to the urgent need for technological development among the developing countries. For Singapore, the quest for technological advancement is greater than usual for the obvious reason that she does not possess too many of the natural resources which her more fortunate neighbours are endowed with.

We are most happy to co-operate within the framework of ECAFE to promote the advancement of technological standards among the countries of the

ECAFE region. To this end the Government of Singapore is glad to offer Singapore as host country for the establishment of five Region Research and Training Centres, namely

- (i) A Regional Industrial and Design Centre
- (ii) A Regional Food Technology Centre
- (iii) A Regional Metal Trades Technology Centre
- (iv) A Regional Fisheries Research and Training Centre
- (v) A Regional Merchant Marine Training Centre*

Thailand

1. *Industrial Development Policy and Measures*

Although industry at present still plays only a relatively small part in Thailand's economy, the promotion of industrial expansion is one of the policies and objectives of the National Economic Development Plan. The Government's main task is considered to be the creation of favourable climate conducive to investment in industry by private entrepreneurs, both domestic and foreign. The growth of industry will be further stimulated by a variety of aids and incentives, including ample supply of power, loan on favourable terms, the establishment of industrial estates, tariff protection when justified, tax relief and a minimum of restrictions and controls.

With reference to facilitation of regional or sub-regional co-operation in the field of industry, the government will be willing to co-operate with the member countries of the ECAFE on any industrial development projects provided that such undertakings will be beneficial to both Thailand and participating member countries of the ECAFE and will be in harmony with the industrial development policy, definitely stated in the National Economic Development Plan.

2. *Progress and Problems of Industrialization in Thailand*

Moderate progress in industrialization has been made in Thailand. Since 1952 up to the end of 1963, total capital investment in industry which includes manufacturing, mining and electricity has amounted to about 35 billion baht. Of the total investment in industry, by far, the larger share was contributed by the private sector. During the years 1952-1960, private investment accounted for over 90 per cent of the total investment but since 1961, the proportion fell sharply to slightly over 80 per cent, due mainly to the rapidly increased public sector expenditures on electricity.

Due to the Government's policy of encouraging both foreign and domestic investment in industrial activities through the Promotion of Industrial Invest-

* The offer to serve as host country for the five Regional Centres was elaborated in the statement made by the Singapore Delegation in Committee C, a text of which was made available to the ECAFE secretariat.

ment Act of 1960 and 1962, the inflow of foreign private capital during the years 1960-1964, amounting to almost 5 billion baht was channeled to the establishment of both foreign ventures and joint ventures. Up to the end of May 1965, 299 promotion certificates have been issued by the Board of Investment. Of the total promotion certificates, 15 and 169 have been issued to foreign ventures and joint ventures, respectively. Thus far, 120 promoted industrial factories have come into operation, the majority of them producing consumer goods which can be considered as import substitutes.

From 1960-1964, the number of registered factories in the whole Kingdom increased from 16,007 to 29,430. For the Bangkok and Thonburi areas alone, the number of registered factories increased from 7,018 to 9,523 during the same period, showing an annual increase of 7.5 per cent. In the other 69 provinces of the Kingdom, the increase in the number of registered factories has been appreciably greater than that in Bangkok and Thonburi. In up country areas, industries ancillary to agriculture and forestry such as small rice mills, saw mills, flour mills, sugar mills and servicing industries such as foundries and machine shops, predominate.

Many problems have been faced by the Government in an effort to build up a more powerful industrial sector. The problems which deserve special attention are as follows:

- (1) Sufficient number of skilled and professional personnel as well as technical know-how are not available in the country so as to make possible introduction, adoption or adaptation of new production techniques for existing and new industries. Consequently, skilled labours, technicians and technical "know-how" have to be imported from the developed countries. However, at present, the Government is remedying the shortage of skilled labour by increasing the number of vocational training institutions, as well as improving the quality of instruction and by strengthening the faculty of engineering in the existing university as well as creating the faculties of engineering in newly established universities.
- (2) Since total imports exceed total exports by a considerable margin every year, the balance of trade has been very unfavourable since 1952. This arises mainly from the increasing demand for imported capital goods and raw materials required for stepping up industrialization. The higher prices paid for imported capital goods and raw materials and the lower prices obtained during recent years for exported primary commodities make it more difficult to improve the position regarding the unfavourable balance of trade, in spite of greater

efforts of the government to diversify exports of primary products and to export ever-increasing quantity of primary products every year.

- (3) The limited size of the domestic markets, due to small number as well as low purchasing power of the population impedes the growth of industries in the country, especially those in which economies of scale play an important role in deciding their establishments. These markets are too small to attract investment for heavy industrial establishments.
3. *Suggestions for co-operative actions in industrial development at sub-regional, regional and inter-regional level*

Detailed feasibility studies of five specific industries, namely iron and steel, fertilizer, aluminium, pulp and paper, and machinery and transport equipment should first be undertaken as recommended by the Preparatory Meeting of the Senior Officials. This will serve as a means to find out whether in all practicality, co-operative measures in industrial development at sub-regional, or regional level would be feasible and useful to the developing member countries of the ECAFE and the facts and figures in these detailed feasibility studies will allow the countries in the sub-region or in the region to see clearly the advantages and the disadvantages of feasible sub-regional or regional industries. If the results of such studies have indicated the feasibility of co-operative actions in setting up new establishments in any of those five industries, then joint action may be needed to draw up industry distribution policy for each country in the recommended grouping.

Republic of Viet-Nam

A. Progress of industrialization

As in other developing countries, Viet-Nam is undergoing a rather slow and painful process of breaking away from its traditional agricultural base on a march toward full-scale industrialization.

Industrialization started in 1957 with the launching of the first economic 5-year plan (1957-1961). This plan seeks to lay down a solid foundation for the over-all economic structure. Along with the development of agriculture, industries for the processing of agricultural products must be established with a view to producing consumer goods for the local market, and eventually contributing to the improvement of trade balance.

The second 5-year plan (1962-1966), while pursuing the programme elaborated in the first plan, emphasizes the importance of implementing specific development projects.

Both plans stress the need to develop the industrial sector. Approved investments averaged at 1,166 million VN\$ (Piasters — 1 VN\$ = 0.0166 US\$)

per year during the first plan, whereas during the 1962-64 period of the second plan, the average annual investments reached 2,881 million VN\$.

All those development measures have led to the positive result that the industrial production index climbed up from 100 in 1962 (taken as base year) to 116.5 in 1963, and 131.9 in 1964; fixed capital formation grows from 6,559 million VN\$ (1960) to 8.654 million (1962), and 8,098 million (1963).

The 13.2 per cent (131.9 vs. 116.5) increase of the industrial production index from 1963 to 1964 was primarily due to gains made in the manufacturing industries.

In the case of beverages, increases of 30 per cent were recorded for beer (956,991 HI vs. 735,906 HI); 21 per cent for carbonated beverages (543,095 HI vs. 448,002 HI); 36 per cent for ice (189,527 tons vs. 139,827 tons); 55 per cent for mineral waters (15,966 HI vs. 10,315 HI); and 16 per cent for alcohol (95,921 HI vs. 82,340 HI).

Manufactured tobacco and cigarettes amounted to 6,055 tons vs. 5,600 tons.

Of all the growing industries of Viet-Nam over the past 10 years, few can equal the remarkable growth of the textile industries. Viet-Nam now produces an estimated 90 per cent of the domestic needs — 25,302 MT of production vs. 641 MT of imports; today it has a total of about 19,000 looms (both automatic and mechanical). Textile industries were significantly developed between 1963 and 1964 as shown by the following figures: 7,793 tons of cotton yarn vs. 6,784 tons; 51,734,000 meters of cotton fabrics vs. 41,327,000 meters; 4,070 tons of jute string vs. 1,424 tons.

With the expansion of one major textile plant and the implementation of another one, Viet-Nam will have a total of 150,000 spindles in full operation by early 1967. Estimated production in 1967 will be about 13,700 MT of cotton yarn — or 108,000,000 meters of cotton fabrics. Based on 6.75 meters of cotton material per person, no further expansion would be required in 1967 unless the population brings about an increased demand.

The two main paper mills provided 18,250 tons of paper in 1964 vs. 12,253 tons in the previous year.

Refined and brown sugar production amounted to over 90,000 tons in 1964 (52,757 tons raw sugar imports). With the implementation of two other major modern sugar plants with a capacity of 25,000 MT each, and the expansion of the existing one, local demand for refined sugar would be met by 1968.

Chemical industry shows a net upward trend: 789,211 cubic meters of oxygen vs. 694,317 cubic meters; 139,151 cubic meters of acetylene vs. 124,298 cubic meters; 667 tons of carbonic acid vs. 656 tons; and as of 1963, 2,700 MT of hydrochloric

acid and 2,100 MT of caustic soda — which meets only one third of the country requirements.

Glass production increased from 6,000 MT in 1960, to 7,745 MT in 1963, and 10,966 MT in 1964.

The production of cement in Viet-Nam amounted to 75,305 tons in 1964; it is estimated to be 150,000 tons in 1965 (for the first 8 months — 116,035 tons). Capacity of the first phase of plant development — which has an annual output of 300,000 MT — has not been reached yet. However, this capacity will be doubled by around 1970 in the second phase.

Extractive industries are on the decline because of insecurity. Viet-Nam produced only 76,956 tons of anthracite in 1964 vs. 104,090 tons in the preceding year.

Three major power projects were planned to come into full use in 1965, of which the first two are to serve Saigon (among other areas); the Danhim hydroelectric plant (160,000 kW), the Thu-duc thermal plant (33,000 kW) and the An-hoa — Nong Son thermal plant (25,000 kW). However, due to frequent Viet-Cong sabotage, the transmission line of the first plant was completely out of service as of May, 1965. As a consequence, there is an acute shortage of power in Viet-Nam.

B. Problems of industrialization

Toward its path of industrialization, Viet-Nam has been encountering many problems, of which only a few have been solved. Here is an enumeration of some current problems faced by the government:

- (1) lack of adequate economic infrastructure (transport, communications, public utilities, etc.);
- (2) lack of capital market, especially foreign investments;
- (3) excessive concentration of industries in the Saigon area resulting in heavy transport and distribution costs for certain industries;
- (4) lack of technical and managerial know-how required by modern industries;
- (5) lack of industrial investment habit combined with shortage and shyness of risk capital;
- (6) unstable investment climate resulting from insecurity;
- (7) shortage of technical cadres and skilled labour being worsened by military drafting needs;
- (8) lack of a well-planned industrial development programme which results in a haphazard growth of certain industries;
- (9) lack of industrial and technological research;
- (10) lack of standardization and quality control systems;
- (11) lack of market research and marketing methods; and
- (12) low rate of productivity.

The above problems can be solved to a certain extent if it were not for the communist Vietcong activities.

C. Industrial development policy and measures taken

The policy of the Government of Viet-Nam vis-a-vis industrial development aims at the following objectives:

- raising agricultural production level through implementation of industrial projects;
- full use of natural resources to increase exports of semi-finished products and finished products;
- encouraging the production of consumer goods which are necessary to the daily life of the people.

In order to convert the economy into (a) a large-scale consumer of raw materials and of industrial crops produced by agriculture, and (b) into an effective producer and supplier of necessary agricultural implements and substitute goods to the rural areas, the following promotional steps have been taken:

1. *Creation of development agencies, such as:*

(a) the National Company for the Development of Industrial Estates (SONADEZI) was established in 1964 for the purpose of administering industrial complexes throughout the country. So far three pilot industrial estates are in actual operation at Thu-duc, Bien-hoa, and An-Hoa — Nong Son. It also builds plants which it rents at low-cost to small and medium industries. The construction of the Cam-Ranh Industrial complex is now in the planning stage. The first stage would implement the following plants: caustic soda (10,000 T/year), calcium carbide (40,000 T/year), and Polyvinyl chloride (10,000 T/year).

(b) the Industrial Development Center (I.D.C.) was set up in 1957 to play the twin role of an industrial development bank and a productivity promotion agency responsible for:

- extending medium-term loans (5-7 years) at low-interest rate for equipment and machinery financing. Between 1957 and November 1965 the Industrial Development Center has lent a total of over 1,300,000 VN\$.

- launching interesting new industries where private investment capital appears to shy away and then nursing them into high yielding ventures before turning them over private sector.

- elaborating a number of worthwhile industrial projects and making them available to potential investors.

- providing technical assistance and advice to industrialists.

(c) The Financial Company for the Development of Industry (SOFIDIV) was set up in 1961 for the purpose of promoting the industrial sector through its financial assistance.

2. *Implementation of infrastructural development projects.* Three major projects, namely the 160,000 kW Danhim hydro-electric plant, the Thu-duc Thermal plant (33,000 kW) and the 25,000 kW

An Hoa — Nong Son power plant are being carried out.

3. *Enactment of legislative measures to attract capital.* Two major legislative measures which have been taken by the Government of Viet-Nam to regulate investments as well as to attract local and foreign capital are:

(a) the Presidential Declaration of March 5, 1957 defines government investment policy and fixes various advantages granted to new investments.

(b) The Decree-Law No. 2/63 of February 14, 1963 regulates investments in Viet-Nam; it codifies the system of private investments and it applies to new investments made in Viet-Nam by Vietnamese nationals or by foreigners, real or legal persons.

For the purpose of encouraging and protecting private investments, the fiscal advantages and guarantees instituted by the present Decree-Law are granted to enterprises whose activity contributes to the development of the national economy, the improvement of employment situation, the raising of the living standard of the population, and, in a general way, the fulfilment of the objectives of the economic development plans.

Besides the fiscal privileges, the government also guarantee against any nationalization measure for a minimum period of 15 years.

Also, the government will take all the necessary measures to help investments such as import curtailments, high tariff protection, supply of abundant raw materials, etc.

In so far as investments are concerned, initiatives remain with private investors. However, the government will invest in the following cases:

(a) to secure certain sources of supply of national defense or public utility nature such as railroads, water, electricity, and constructions of low-cost housings, etc.;

(b) to implement certain industries of prime importance which facilitate the current development (future development as well) of other secondary industries such as the An Hoa-Nong Son Industrial complex;

(c) to satisfy the demand of the masses for certain products of prime necessity such as coal, cement;

(d) to invest in sectors where private initiative is lacking or still leaves much to be desired.

Only with these principles in mind has the Government of Viet-Nam actively participated in a few large industrial investments such as textile, air transport, paper, sugar, cement, and glass industries. And, once the enterprises become stabilized and profitable, the government will transfer its ownership in these firms to private sector.

Realizing the need of Viet-Nam for foreign investments not only in the form of machinery and equipment but also in the form of technical know-how, management methods, and experiences, the govern-

ment has been encouraging the establishment of joint ventures; at the same time no restrictive measure is taken to this flow of foreign investments.

4. *Promoting long-term financing.* To date the Government of Viet-Nam has been able to obtain long-term borrowings from certain international credit organizations such as the Export-Import Bank and Development Loan Fund; for various reasons (balance of payments, reimbursement capability, etc.) it fails to obtain substantial credit from such international financial organizations as the IBRD and the IMF.

D. Suggestions for co-operative actions

Among those actions which can be done in order to promote industrial development in ECAFE regions, it is suggested that greater co-operation should be developed between advanced countries and developing countries, and between countries within the ECAFE region itself. Advanced nations should help developing nations in capital assistance and technical know-how. Concurrently, share of experiences on common problems should be widely disseminated between ECAFE developing nations.

Joint ventures should be encouraged. However, any implementation on regional industrial development programme should be tailored to meet the prevailing socio-economic conditions and to fit in with the requirements and potentials of the local regions.

So far as Viet-Nam is concerned, its government would welcome any United Nations group of experts in Viet-Nam to help Vietnamese counterparts make feasibility studies on a number of industrial projects in order to better use its national resources, a large number of which have not been touched upon.

C. CLOSING ADDRESS OF THE CHAIRMAN OF THE CONFERENCE

"THE ECAFE AND ASIAN UNITY"

By

Cornelio Balmaceda

Secretary of Commerce and Industry,
Government of the Philippines and Chairman of the
First Asian Conference on Industrialization
held in Manila, Philippines, December 6-20, 1965

Distinguished Delegates:

Permit me to thank you all on behalf of the Philippine government, our country and people for your kind expressions of appreciation, friendship, and good will.

I wish to take this opportunity to pay a tribute to the ECAFE for its sustained and successful efforts to build Asian unity for regional economic development.

Because Asia is so different from the other regions of the world — so large, so varied a continent, so lacking in the natural homogeneity which characterize the other regions like Europe, Latin America, or Africa —

ECAFE, our regional economic commission for Asia and the Far East, has had to meet vastly more difficult problems than its sister commissions in achieving its goal of regional unity and solidarity for economic development since it was founded eighteen years ago.

This region is not only the most densely populated — Asia's population of nearly 1,800,000,000 being almost twice as big as those of Europe, Africa, and Latin America put together, — but also the poorest and most under developed. The per capita income in the ECAFE region is the lowest in the world. Besides, ECAFE has also to reckon with the varied cultural backgrounds, customs and traditions of the many diverse races that inhabit this region.

Added to these natural barriers to economic unity were the effects of centuries of foreign domination that retarded the free and economic expansion and growth of almost all the countries of this region. Their development as a rule was limited to producing raw materials for the industrialized countries with little or no industries of their own and no diversification of production. This warped their economic growth and prevented the creation of more employment and incomes for the great masses of their inhabitants. Trade among the countries of the region was nil as their trade had become largely oriented toward the Western countries.

These were among the difficulties that ECAFE had to contend with in achieving its goal of Asian unity through economic development.

But the Commission was undaunted in accomplishing the task entrusted to it by the United Nations. Relentlessly under the leadership of devoted Asian leaders as ECAFE's executive secretaries and a well-organized secretariat and with the determined efforts and imaginative participation of the ECAFE regional countries' representatives to the successive sessions and meetings of the Commission, the barriers to Asian economic homogeneity are being successfully removed.

Even the seeming incongruity of including in the membership of the Commission upon its inception in 1947 non-regional advanced industrialized countries with opposing interests has been successfully solved. The solution came at the Seventh Session of the Commission held in Lahore in 1951 when the non-regional member countries entered into a covenant with these Asian members that in any matter before the Commission in which the latter have expressed their common will, the former shall refrain from interfering or putting any obstructions. Since then, the spirit of co-operation of non-regional members with the developing member-countries in their development efforts has been more clearly prevalent.

It is of great historical significance in this regard that in this same City of Manila where we are again gathered in an important ECAFE Conference, the First ECAFE Ministerial Conference on Asian Economic Co-operation was held. That was in December 1963

or exactly two years ago. In that historic conference, Asian ministers laid down more clearly and specifically than ever before the principles of Asian economic co-operation to be pursued and implemented in succeeding meetings.

Three of these meetings have just taken place here, namely: the Second Ministerial Conference that established the Asian Development Bank, the Conference of Plenipotentiaries that ratified the Charter of the Bank, and this First Asian Conference on Industrialization which we are about to conclude.

Although it was conceived primarily as one of the regional industrialization symposia to precede the World Symposium on Industrialization that will be convened in 1967 by the United Nations, this First Asian Industrialization Conference has come as another strong link in the chain of Asian economic co-operation which ECAFE has continued to forge and strengthen since 1963.

As we now examine the results of our deliberations during the last two weeks, we can feel satisfied that we have successfully accomplished the objectives of this first Asian Conference on Industrialization. Among the more important results of our joint efforts were:

1. A concerted effort toward the achievement of further close co-operation among neighbouring Asian countries and harmonization of their national development plans relating particularly to industrial development.
2. A frank and full evaluation of the progress and problems of industrialization in every country of the ECAFE region.
3. A reiteration of the common objective of the developing ECAFE countries to attain a faster rate of growth of their industrial output.
4. Adoption of specific recommendations to developing member countries on various key industries, mobilization of financial resources, expansion of trade in manufactures and semi-manufactures, advancement of technological level, strengthening of institutional arrangements, and development of infrastructure.
5. Establishment of the Conference on Asian Industrialization as a regular organ of the ECAFE.
6. Establishment of an Asian Industrial Development Council.

The Council together with the Conference that will be held regularly every three years will insure the continuity of the efforts that we have just launched to promote industrialization in the ECAFE region. There will be a continuous review of industrial development plans and programmes, and more fields of industrial activity will be explored.

The wide extent of our deliberations during this Conference has made all the more obvious the enormity of our problems and the challenges that still lie ahead. Let me cite for instance, the air transport industry, as another field that may be included in our future deliberations.

Still in its infancy, the aviation industry in most developing countries is facing problems of rising costs, traffic rights, and capital shortage.

As an economic forum in Asia, ECAFE may in time provide the facilities for a full airing of these problems with a view to finding ways by which they could be solved expeditiously on a regional basis. It will do well for the developed countries in ECAFE to actively assist in the attainment of mutually beneficial solutions to the problems of the industry considering the industry's increasing role as an effective medium both for economic progress and international understanding.

Executive Secretary U Nyun and the Secretariat had provided us with the complete documentation that we needed for the successful conduct of this conference, and for this we are exceedingly grateful.

We also thank the United Nations Commission for Industrial Development, Mr. I. H. Abdel Rahman, for having joined us and given us the benefit of his valuable advice and guidance.

We thank the working parties and the various committees who have worked very hard to help bring the conference to a successful end.

And we thank all the delegations for their valuable contributions that made possible a thorough and comprehensive treatment of the vital problems that were taken up in the conference.

And finally, my sincerest thanks are due to each and all of you for the great honor and rare privilege you so generously conferred upon me in electing me as Chairman of this Conference.

FIFTH PART: APPENDICES

Appendix I

LIST OF PARTICIPANTS

Members		<i>Alternates:</i>
Australia		
<i>Representative:</i>	Mr. F. E. Anderson, Assistant Secretary, Department of Trade and Industry, Canberra	Mr. Alain Deschamps, représentant permanent auprès de la C.E.A.E.C. Mr. Rogard, attaché commercial près l'ambassade de France à Manille
<i>Alternates:</i>	Miss Maris King, Senior Research Officer, Department of External Affairs, Canberra Mr. B. J. Hill, Officer-in-Charge, Policy Section, Manufacturing Industries Division, Department of Trade and Industry, Canberra	India
<i>Adviser:</i>	Mr. Donald Walker, Commercial Counsellor, Australian Embassy, Manila	<i>Representative:</i>
		H.E. Mr. Bibudhendra Misra, Deputy Minister, Ministry of Industry, New Delhi
		<i>Alternates:</i>
		Mr. R. V. Raman, Joint Secretary, Ministry of Industry, New Delhi Mr. P. M. Nayak, Joint Secretary, Ministry of Industry, New Delhi
		<i>Alternate/Secretary:</i>
		Mr. S. P. Sethi, Charge d'Affaires, Embassy of India, Manila
Ceylon		
<i>Representative:</i>	Mr. S. J. Walpita, Permanent Secretary, Ministry of Industry and Fisheries, Colombo	Iran
<i>Alternate:</i>	Mr. A. B. Elkaduwa, Assistant Secretary, Ministry of Industry and Fisheries, Colombo	<i>Representative:</i>
		Dr. Mohammad Ali Jafari, Advisor, Industrial Development Research Centre, Tehran
China		
<i>Representative:</i>	Mr. Kai-Yung King, Member of Council for International Economic Co-operation and Development (CIECD), Taipei	Japan
<i>Alternates:</i>	Mr. Edward Y. K. Kwong, Minister, Embassy of the Republic of China, Bangkok, Thailand Mr. William Y. N. Wei, Deputy Secretary-General, CIECD, Taipei	<i>Representative:</i>
<i>Adviser:</i>	Mr. Yao-Shen Chen, Deputy Chief, Manufacturing Department, Chinese Petroleum Corporation	H.E. Mr. Harumi Takeuchi, Ambassador Extraordinary and Plenipotentiary of Japan to the Philippines
		<i>Alternates:</i>
		Mr. Michiyoshi Kawada, Councillor, Minister's Secretariat, Ministry of International Trade and Industry Mr. Saburo Kake, Chief, Statistics Section, Resources Bureau, Science and Technology Agency, Prime Minister's Office Mr. Masato Yamano, First Secretary, Embassy of Japan, Manila.
		<i>Experts:</i>
		Mr. Tadashi Fujisawa, Second Secretary, Embassy of Japan, Manila Mr. Toshitake Katayama, Second Secretary, Embassy of Japan, Manila Mr. Shigeo Iwai, Secretary, Economic Section, United Nations Bureau, Ministry of Foreign Affairs
France		
<i>Representative:</i>	Mr. Joan Herbin, ingénieur en chef des Mines, adjoint au directeur de la Sidérurgie, Ministère de l'Industrie	

- Advisers:* Mr. Yoshio Karita, Secretary, Economic Section, United Nations Bureau, Ministry of Foreign Affairs
 Mr. Nisakazu Takase, Third Secretary, Embassy of Japan, Bangkok
 Mr. Jiro Kitagawa, Chief, Nippon Light Metal Research Laboratory, Ltd.
 Mr. Nagatoshi Suzuki, Staff Member, Research Department for Economic Growth, Institute of Asian Economic Affairs
 Mr. Yoshimitsu Tamura, Staff, Overseas Market Research Section, Research Division, Japan External Trade Organization
 Mr. Yasumasa Bando, General Secretary to the President, Nippon Koei Company, Ltd.

Korea, Republic of

- Representative:* Mr. Won Chol O, Director, First Industry Bureau, Ministry of Commerce and Industry, Seoul
Alternate: Mr. Won Ir Sohn, Chief, Economic Research Section, Economic Planning Bureau, Seoul

Laos

- Representative:* H.E. Mr. Inpeng Suryadhay, Minister of Planning, Vientiane
Alternates: Mr. Nikorn Phankongsy, Secretary-General, National Bank of Laos, Vientiane
 Mr. Oukeo Souvanavong, Commissioner-General for Planning, Vientiane

Malaysia

- Representative:* Mr. Abdul Majid, Vice-Consul, Malaysian Consulate, Manila

Nepal

- Representative:* H.E. Mr. Nagendra Prasad Rijal, Minister for Industries, His Majesty's Government of Nepal, Kathmandu
Alternates: Dr. Yadav Prasad Pant, Secretary to His Majesty's Government, Ministry of Finance, Kathmandu
 Mr. Ishwari Raj Pandey, Director of Industries, His Majesty's Government, Ministry of Industry, Kathmandu

Netherlands

- Representative:* Prof. H. K. Volbeda, Professor of Industrial Organization, Technological University Twente
Alternates: Dr. J. C. Ramaer, Economist, Financial Department, N.V. Philips Gloeilampenfabrieken, Eindhoven, Netherlands; Member of the National Advisory Council on Aid to less developed countries, the Hague
 Mr. A. B. M. Norbart, First Secretary, Royal Netherlands Embassy, Manila

New Zealand

- Representative:* Mr. G. L. Easterbrook-Smith, Director, Trade Relations and Economics Division, Department of Industries and Commerce, Wellington
Alternate: Mr. L. J. Watt, First Secretary and Permanent Representative of New Zealand to ECAFE, New Zealand Embassy, Bangkok

Pakistan

- Representative:* H.E. Mr. M. Masood, Ambassador of Pakistan to the Philippines, Manila
Alternate: Mr. A. H. Khan, First Secretary, Embassy of Pakistan, Manila

Philippines

- Representative:* Hon. Cornelio Balmaceda, Secretary of Commerce and Industry
Alternates: Hon. Hilarion M. Henarez, Jr., Chairman, National Economic Council
 Hon. Armand V. Fabella, Director-General, Programme Implementation Agency
 Hon. Medina Lacson de Leon, Undersecretary of Commerce
 Hon. Pedro G. Perahta, Undersecretary of Industry
 Dr. Canuto G. Manuel, Commissioner, National Institute of Science and Technology
 Atty. Severino M. Salang, Acting Deputy Coordinator, Office of Economic Coordination
 Mr. Hilarion A. Pilapil, Deputy Administrator, National Cottage Industries Development Authority

Dr. Augusto Caesar Espiritu, 1st Vice-President, Philippine Chamber of Industries

Mr. Wilfredo V. Vega, Acting Executive Officer, Office of Economic Affairs, Department of Foreign Affairs

Mr. L. Gonzales, Loan and Investment Council

Mr. Aurelio Periquet, Jr., President, Chamber of Commerce of the Philippines

Mr. Pio Pedrosa, Vice-President, Chamber of Commerce of the Philippines

Mr. Teofilo Reyes, Jr., Director, Chamber of Commerce of the Philippines

Advisers:

Dr. Constancio M. Ancheta, Director, Office of National Planning, National Economic Council

Mr. Serafin Aquino, Deputy Director, Industrial Estate Development Projects, National Economic Council

Dr. Antonio Arizabal, Jr., Director, Metallurgical Advisory Group, Programme Implementation Agency

Dr. Antonio Ayala, Special Assistant to the Director-General, PIA

Mr. Leonardo Mariano, Jr., Industrial Consultant, Industrial Development and Evaluation Office, PIA

Mr. Jose Ocampo, Special Assistant to the Chairman, Development Bank of the Philippines

Mr. Remedios Racela, Bureau of Standards

Mr. Carlos Tan, Jr., Director, Industrial Development and Evaluation Office, National Economic Council

Advisers:

Mr. Orlando Yap, Chief, Industrial Branch, National Economic Council

Dr. Urbano Zafra, Director, Technical Staff, Department of Commerce and Industry

Mr. Filemon Rodriguez, Chairman of the Board, Filoil Refinery Corporation

Mr. Salvador Araneta, President, Araneta University

Dr. Tito A. Mijares, Director, Bureau of the Census and Statistics

Mr. Cesar H. Concio, Cesar H. Concio and Associates, Suite 505, L & S Building

Mr. Victor Lim, Economic Development of the Philippines

Mr. Alberto de Joya, Chairman, Anti-Graft Committee

Mr. Jose Ma Zarate, Foreign Trade Promotion Attache, and Philippine Liaison Officer to ECAFE, Philippine Embassy, Bangkok

Mr. J. Estanislao, Director, Operational Planning & Statistics Office, Programme Implementation Agency

Mr. R. Katigbak, Jr., Special Assistant to the Director-General, Programme Implementation Agency

Mr. R. Ordonez, Financial Consultant, Programme Implementation Agency

Mrs. R. Miguel, Engineering Consultant, Programme Implementation Agency

Mr. E. Jaranilla, Consultant Forest Products Research Institute

Republic of Viet-Nam

Representative: Mr. Vo Van-Nhung, Assistant to the Minister of National Economy, Saigon

Alternates: Mr. Le-Thien Ngo, Expert, Prime Minister's Office, Saigon

Mr. Lam Ho, Finance Expert, Industrial Development Centre, Saigon

Singapore

Representative: Mr. Lim Ho Hup, Director, Economic Development Board, Singapore

Alternates: Mr. Ernest Wong, Assistant Chief, Projects Division, Economic Development Board, Singapore

Mr. Param Ajeet Singh, Administrative Assistant, Economic Planning Unit, Ministry of Finance, Singapore

Thailand

Representative: H.E. Air Marshal Muni Mahasandana Vejyant Rangrisht, Minister of Industry, Bangkok

Alternates: Mr. Yos Bunnag, Director-General, Department of Science, Ministry of Industry, Bangkok

M.C. Jamiyaputra Jumbala,

General Inspecting Commissioner,
Ministry of Economic Affairs,
Bangkok

Mr. Pisit Snidvongs, Secretary to
the Minister of Industry, Ministry
of Industry, Bangkok

Mr. Padhna Barpuyawart, Senior
Official attached to the Ministry of
Industry, Bangkok

Mr. Angkarb Kanithasen, Chief of
International Economic Division,
Economic Department, Ministry of
Foreign Affairs, Bangkok

Mr. Sivavong Changkasiri, Senior
Industrial Officer, Department of
Industrial Promotion, Ministry of
Industry, Bangkok

Mr. Vithya Siripongse, Economist,
Office of the National Economic
Development Board Office of the
Prime Minister, Bangkok

Union of Soviet Socialist Republics

Representative: H.E. Mr. V. A. Sergeev, Deputy
Chairman, State Committee of the
Council of Ministers of the USSR
on the foreign economic relations,
Moscow

Alternates: H.E. Mr. B. A. Azimov, Minister
of Azerbaijan Soviet Socialist Re-
public, Professor, Chief of Labora-
tory on electronic computers, Baku
Mr. B. S. Vaganov, Rector,
Academy of Foreign Trade, Mos-
cow

Mr. S. A. Smolnikov, Councillor,
Permanent Representative of the
USSR to ECAFE, USSR Embassy,
Bangkok, Thailand

Advisers: Mr. A. P. Mikhailov, First Secre-
tary, Department of International
economic organizations, Ministry of
Foreign Affairs, Moscow

Mr. A. I. Tchekhutov, Senior
Scientific worker, Institute of world
economic and international affairs,
Academy of Science of the USSR,
Moscow

Mr. A. B. Kupriyanov, Expert,
Ministry of Foreign Trade, Moscow

Expert: Mrs. N. P. Goremikina, Senior En-
gineer, State Committee of the
Council of Ministers on Science
and Technics, Moscow

Interpreter: Mr. L. I. Kolesnikov, Attache,
USSR Embassy in Thailand, Bang-
kok, Thailand

United Kingdom of Great Britain and Northern Ireland

Representative: Mr. A. A. W. Landymore, British
Ministry of Overseas Development

Alternates: Dr. C. R. S. Manders, Scientific
Counsellor, British Embassies,
Tokyo and Manila

Mr. M. H. N. Geoghegan, Third
Secretary, British Embassy, Manila

United States of America

Representative: Mr. Robert E. Simpson, Director,
Office of International Regional
Economics, Department of Com-
merce

Advisers: Mr. Frederick G. Draper, Deputy
Director for Industrial Develop-
ment, Industrial Development,
Transportation and Housing Service,
AID

Mr. Lawrence D. Stifel, USOM,
Bangkok

Mr. William J. Tonesk, American
Embassy, Bangkok

Mr. Leighton Van Nort, Office of
International Economic and Social
Affairs, Department of State

Associate Members

Brunei

Representative: Mr. Othman Chua Kwang Soon,
Controller of Customs and Excise

*Alternate/
Secretary:* Mr. Zakaria Bin Haji Sulaiman, Ad-
ministrative Officer

Advisers: Dr. J. S. Gould, United Nations
Economic Adviser to the Govern-
ment of Brunei

Hong Kong

Representative: Dr. S. Y. Chung, Member, Trade
and Industry Advisory Board,
Hongkong Government

Alternates: Mr. K. S. Huie, Senior Trade
Officer, Commerce and Industry
Department, Hong Kong
Mr. S. L. Yeung, Assistant Trade
Officer, Commerce and Industry
Department, Hong Kong

Other states**Belgium**

Representative: H.E. Mr. J. Van Caloen de Basseghem, Ambassadeur de Belgique à Manille, Manila

Alternate: Mr. R. Van de Velde, Attaché, Belgian Embassy, Manila

Czechoslovakia

Representative: Dr. Alois Holub, Expert of the Research Institute for National Economic Planning, Prague

Federal Republic of Germany

Representative: Dr. C. H. Cassens, Commercial Attaché, German Embassy, Manila

Israel

Representative: H.E. Mr. Abraham Kidron, Ambassador of Israel to the Philippines, Embassy of Israel, Manila

Alternate: Mr. G. A. D. Ranon, First Secretary, Embassy of Israel, Manila

Italy

Representative: Dr. Carlo Siano, Charge d'Affaires a.i. Italian Embassy, Manila

Sweden

Representative: Mr. Claes Erik Winberg, Commercial Attaché, Royal Swedish Embassy, Manila

United Nations Special Fund (UNSF)

Mr. Warren H. Cornwell Director, UN Special Fund Programmes in the Philippines, Manila

Mr. Stig Andersen Deputy Director, UN Special Fund Programmes in the Philippines, Manila

Mr. Reginald L. Arnolda World Food Programme Project Officer

Mr. William N. Shane Assistant Director, UN Special Fund Programmes in the Philippines, Manila

Specialized Agencies

International Labour Organisation (ILO) Mr. S. K. Jain, Director, ILO Asian Field Office, Colombo, Ceylon

Food and Agriculture Organization of the United Nations (FAO) Mr. Soesilo H. Prakoso, Deputy Regional Representative, FAO Regional Office for Asia and the Far East, Bangkok

World Health Organization (WHO)

Dr. A. C. Reyes, Assistant Director of Health Services, Western Pacific Region, Manila

Mr. Raul Valdez Pinilla, Environmental Health Officer, Western Pacific Region, Manila

International Atomic Energy Agency (IAEA)

Dr. Svasti Srisukh

Regional Officer for Asia and the Far East, Bangkok, Thailand

Inter-Government Organizations

Asian Productivity Organization (APO)

Dr. S. K. Rau, Administrative and Budget Officer, Asian Productivity Organization, Tokyo, Japan

Bureau of the International Union for the Protection of Industrial Property (BIRPI)

Mr. Ross Woodley, Counsellor, BIRPI, 32, Chemin des Colombettes, Geneva

Non-Governmental Organizations

International Chamber of Commerce (ICC)

— Sir Justo N. Lopez, K.S.O.M., K.S.S., C.K.R., Secretary General, Philippine Council of the ICC; Chairman, Drosvil Engineering Services, Manila

— Dr Augusto Caesar Espiritu, Vice-President, Credit Corporation of the Philippines, Manila

— Mr. Froilan M. Bacungan, Executive Secretary, Philippine Council of the ICC, Manila

— Mr. Lauro B. Magnaye, Vice-President, Unson Co., Manila

— Mr. Gaudencio S. Mañalac, President, Philippine Chamber of Wood Industries, Manila

— Mr. Setsuo Nakayama, Representative in Manila Export-Import Bank of Japan, Manila

— Mr. Jesus T. Tanchanco, Assistant President, United Laboratories, Manila

— Mr. Chozaburo Sekine, Deputy Manager, Foreign Department, Industrial Bank of Japan, Tokyo

International Confederation of Free Trade Unions (ICFTU)

— Mr. Jose J. Hernandez, General Secretary, Philippine Trade Unions Council

— Mr. Pedro D. Fernandez, President, Philippine Trade Unions Council

— Mr. D. Ramanujam, ICFTU Representative, Singapore

International Federation of Christian Trade Unions (IFCTU)	Dr. C. Y. Li	Deputy Chief, Industries Division
— Mr. Cecilio B. Delfin, 1845 Taft Avenue, Suite E, Ysmael Apt., Manila	Mr. B. P. Abrera	Economic Affairs Officer, Metals and Engineering Section, Industries Division
— Mr. Julio Castelo, 1845 Taft Avenue, Suite E, Ysmael Apt.; Manila	Mr. Tun Thein	Chief, Cottage and Small-Scale Industries Section, Industries Division
World Federation of United Nations Associations (WFUNA)	Mr. S. F. Garcia	Economic Affairs Officer, Industries Division
— Mr. Gabriel Daza, Member, Executive Board, United Nations Association of the Philippines	Mr. I. F. Tang	Consultant, Industries Division
— Mr. Teodoro Evangelista, Member, Executive Board, United Nations Association of the Philippines	Dr. Prachoom Chomchai	Consultant, Industries Division
United Nations Centre for Industrial Development	Mr. N. S. Fernandez	Consultant, Industries Division
Mr. I. H. Abdel-Rahman	Mr. V. M. Bhatt	Special Assistant to the Executive Secretary
— Commissioner for Industrial Development	Mr. K. Akatani	Information Officer
Mr. Walter A. Chudson	Mr. D. B. Kennedy	Chief, Division of Administration
— Assistant Director, Center for Industrial Development	Mr. S. V. Swami	Conference Officer
United Nations Conference on Trade and Development	Mr. M. Ghosh	Assistant Conference Officer
Mr. J. Stanovnik	Mr. B. Schevtchenko	Chief, Language Services
— Special Adviser to the Secretary-General, United Nations Conference on Trade and Development, Geneva	Mrs. Nicole Suthimai	Interpreter
	Miss B. M. Dion	Interpreter
	Mr. F. Siegenthaler	Interpreter
Secretariat	Mr. Pravit Chantanakomes	Personal Assistant to the Executive Secretary
U Nyun Executive Secretary	Mr. Phipit Sombutsri	Documents Assistant
Mr. A. G. Menon Chief, Industries Division		

Appendix II

LIST OF DOCUMENTS BEFORE THE ASIAN CONFERENCE ON INDUSTRIALIZATION

<i>Symbol No.</i>	<i>Language of Issue</i> (E- English F- French)	<i>Title</i>	<i>Source</i>
	E	Provisional agenda	ECAFE secretariat
E/CN.11/I&NR/Ind.Conf./ L.13 Rev.1	E & F	Annotated provisional agenda	"
I&NR/Ind.Conf./C.1	E	Country study on Nepal	Government
I&NR/Ind.Conf./C.2	E	Country study on Australia	"
I&NR/Ind.Conf./C.3	E	Country study on New Zealand	"
I&NR/Ind.Conf./C.4	E	Country study on India	"
I&NR/Ind.Conf./C.5	E & F	Country study on Cambodia	"
I&NR/Ind.Conf./C.6	E	Country study on the Republic of Korea	"
I&NR/Ind.Conf./C.7	E	Country study on Afghanistan	ECAFE secretariat
I&NR/Ind.Conf./C.8	E	Country study on Hong Kong	Government
I&NR/Ind.Conf./C.9	E	Country study on Brunei	"
I&NR/Ind.Conf./C.10	E & F	Country study on the Republic of Viet-Nam	"
I&NR/Ind.Conf./C.11	E	Country study on Ceylon	"
I&NR/Ind.Conf./C.12	E	Country study on the Philippines	"
I&NR/Ind.Conf./C.13	E	Country study on Burma	ECAFE secretariat
I&NR/Ind.Conf./C.14	E	Country study on the Republic of China	Government
I&NR/Ind.Conf./C.15	E	Country study on Japan	"
I&NR/Ind.Conf./C.16	E	Country study on Pakistan	"
I&NR/Ind.Conf./C.17	E	Country study on Malaysia	"
I&NR/Ind.Conf./C.18	E	Country study on Indonesia	ECAFE secretariat
I&NR/Ind.Conf./C.19	E & F	Country study on Laos	Government
I&NR/Ind.Conf./C.20	E	Country study on Iran	"
I&NR/Ind.Conf./C.21	E	Country study on Thailand	"
I&NR/Ind.Conf./C.1 Summary	E & F	Summary of country study on Nepal	ECAFE secretariat
I&NR/Ind.Conf./C.2 Summary	E & F	Summary of country study on Aus- tralia	"
I&NR/Ind.Conf./C.3 Summary	E & F	Summary of country study on New Zealand	ECAFE secretariat
I&NR/Ind.Conf./C.4 Summary	E & F	Summary of country study on India	"
I&NR/Ind.Conf./C.5 Summary	E & F	Summary of country study on Cambodia	"
I&NR/Ind.Conf./C.6 Summary	E & F	Summary of country study on the Republic of Korea	"

<i>Symbol No.</i>	<i>Language of Issue</i> (E- English F- French)	<i>Title</i>	<i>Source</i>
I&NR/Ind.Conf./C.7 Summary	E & F	Summary of country study on Afghanistan	ECAFE secretariat
I&NR/Ind.Conf./C.8 Summary	E & F	Summary of country study on Hong Kong	"
I&NR/Ind.Conf./C.9 Summary	E & F	Summary of country study on Brunei	"
I&NR/Ind.Conf./C.10 Summary	E & F	Summary of country study on the Republic of Viet-nam	"
I&NR/Ind.Conf./C.11 Summary	E & F	Summary of country study on Ceylon	"
I&NR/Ind.Conf./C.12	E & F	Summary of country study on the Philippines	"
I&NR/Ind.Conf./C.13 Summary	E & F	Summary of country study on Burma	"
I&NR /Ind.Conf./C.14 Summary	E & F	Summary of country study on the Republic of China	"
I&NR/Ind.Conf./C.15 Summary	E & F	Summary of country study on Japan	"
I&NR/Ind.Conf./C.16 Summary	E & F	Summary of country study on Pakistan	"
I&NR/Ind.Conf./C.17 Summary	E & F	Summary of country study on Malaysia	"
I&NR/Ind.Conf./C.18 Summary	E & F	Summary of country study on Indonesia	"
I&NR/Ind.Conf./C.19 Summary	E & F	Summary of country study on Laos	"
I&NR/Ind.Conf./C.20 Summary	E & F	Summary of country study on Iran	"
I&NR/Ind.Conf./C.21 Summary	E & F	Summary of country study on Thailand	"
I&NR/Ind.Conf./S.1	E	Sectoral study—Small-scale Industries	Expert Working Group
I&NR/Ind.Conf./S.2	E	Sectoral study—Chemical Industries	"
I&NR/Ind.Conf./S.3	E	Sectoral study—Pharmaceutical Industries	"
I&NR/Ind.Conf./S.4	E	Sectoral study—Textile Industries	"
I&NR/Ind.Conf./S.5	E	Sectoral study—Aluminum Industry of the ECAFE region	"
I&NR/Ind.Conf./S.6	E	Sectoral study—Standardization, Patents and Marketing	"
I&NR/Ind.Conf./S.7	E	Sectoral study—Industrial Credit and Financing	"
I&NR/Ind.Conf./S.8	E	Sectoral study—Engineering Industries	"
I&NR/Ind.Conf./S.9	E	Sectoral study—Silicate Industries	"
I&NR/Ind.Conf./S.10	E	Sectoral study—Rubber Industries	"
I&NR/Ind.Conf./S.11	E	Sectoral study—Oils and Fats Industry	"
I&NR/Ind.Conf./S.12	E	Sectoral study—Iron and Steel Industry	"
I&NR/Ind.Conf./S.13	E	Sectoral study—Industrial Research and Design	"

<i>Symbol No.</i>	<i>Language of Issue</i> (E- English F- French)	<i>Title</i>	<i>Source</i>
I&NR/Ind.Conf./S.14	E	Sectoral study—Forest Products Industries	Expert Working Group
I&NR/Ind.Conf./S.15	E	Sectoral study—Food Processing Industries	"
I&NR/Ind.Conf./S.16 (E/CN.11/713)	E	Report of the Working Group on the Role and Application of Electric Power in Industrialization in Asia and the Far East	"
I&NR/Ind.Conf./S.17	E	Sectoral study-Pesticides and Insecticides	ECAFE secretariat
I&NR/Ind.Conf./S.1 Summary	E & F	Summary of sectoral study-Small-scale industries	"
I&NR/Ind.Conf./S.2 Summary	E & F	Summary of sectoral study-Chemical industries	"
I&NR/Ind.Conf./S.3 Summary	E & F	Summary of sectoral study-Pharmaceutical industries	"
I&NR/Ind.Conf./S.4 Summary	E & F	Summary of sectoral study-Textile Industries	"
I&NR/Ind.Conf./S.5 Summary	E & F	Summary of sectoral study-Aluminium Industry of the ECAFE region	"
I&NR/Ind.Conf./S.6 Summary	E & F	Summary of sectoral study-Standardization, Patents and Marketing	"
I&NR/Ind.Conf./S.7 Summary	E & F	Summary of sectoral study-Industrial Credit and Financing	"
I&NR/Ind.Conf./S.8 Summary	E & F	Summary of sectoral study—Engineering Industries.	"
I&NR/Ind.Conf./S.9 Summary	E & F	Summary of sectoral study—Silicate Industries	"
I&NR/Ind.Conf./S.10 Summary	E & F	Summary of sectoral study—Rubber Industries	"
I&NR/Ind.Conf./S.11 Summary	E & F	Summary of sectoral study—Oils and Fats Industry	"
I&NR/Ind.Conf./S.12 Summary	E & F	Summary of sectoral study—Iron and Steel Industry in the ECAFE region	"
I&NR/Ind.Conf./S.13 Summary	E & F	Summary of sectoral study—Industrial Research and Design	"
I&NR/Ind.Conf./S.14 Summary	E & F	Summary of sectoral study—Forest Products Industries	"
I&NR/Ind.Conf./S.15 Summary	E & F	Summary of sectoral study—Food Processing Industries	"
I&NR/Ind.Conf./S.16 Summary	E & F	Summary of sectoral study—Role and Application of Electric Power in Industrialization	"
I&NR/Ind.Conf./S.17 Summary	E & F	Summary of sectoral study—Pesticides and Insecticides	"
E/CN.11/I&NR/Ind.Conf./ L.2	E	Overall evaluation of the progress and problems of industrialization in the ECAFE region	"
E/CN.11/I&NR/Ind.Conf./ L.3	E	Development of key industries in the ECAFE region	"

<i>Symbol No.</i>	<i>Language of Issue</i> (E- English F- French)	<i>Title</i>	<i>Source</i>
E/CN.11/I&NR/Ind.Conf./ L.4	E	Industrialization and Foreign Trade	ECAFE secretariat
E/CN.11/I&NR/Ind.Conf./ L.5	E	Promotion Programmes and Limiting Factors	"
E/CN.11/I&NR/Ind.Conf./ L.6	E	The Application of Science and Technology to the more effective use of raw materials	"
E/CN.11/I&NR/Ind.Conf./ L.7	E	Institutional Arrangements for Industrial Development	"
E/CN.11/I&NR/Ind.Conf./ L.8	E	External Assistance for Industrialization	"
E/CN.11/I&NR/Ind.Conf./ L.9	E	Industrialization and Employment with special reference to the ECAFE region	ILO
E/CN.11/I&NR/Ind.Conf./ L.10	E	Industrialization and Labour Policy	"
E/CN.11/I&NR/Ind.Conf./ L.14 Rev.1	E	Provisional List of documents	ECAFE secretariat
E/CN.11/I&NR/Ind.Conf./ L.15	E & F	Report of the Preparatory Meeting of Senior Officials for the Asian Conference on Industrialization	ECAFE secretariat
E/CN.11/I&NR/Ind.Conf./ L.16	E	Employment and the choice of technology	ILO
E/CN.11/I&NR/Ind.Conf./ L.17	E	Management development	"
E/CN.11/I&NR/Ind.Conf./ L.18	E & F	Machinery for implementation of an accelerated programme for development of industries and natural resources in the ECAFE region	ECAFE Secretariat
E/CN.11/I&NR/Ind.Conf./ L.19	E	Establishment of a regional standards organization in the ECAFE region: Programme of Action	"
E/CN.11/I&NR/Ind.Conf./ L.20	E	Aspects of industrial location in the ECAFE region	"
E/CN.11/I&NR/Ind.Conf./ L.21	E	Promotion of small industries	ILO
E/CN.11/I&NR/Ind.Conf./ L.22	E	Small Industries in the APO member countries	Asian Productivity Organization
I&NR/Ind.Conf./1	E	Industrial Development: Problems and Issues	United Nations Centre for Industrial Development
I&NR/Ind.Conf./2	E	Aide-Memoire for the International Symposium on Industrial Development	"
I&NR/Ind.Conf./3	E	Utilizing poorly mechanized forms of manufacture in economic development	Government of the Union of Soviet Socialist Republics
I&NR/Ind.Conf./4	E	Textile industries in developing countries	United Nations Centre for Industrial Development
I&NR/Ind.Conf./5	E	Summary report of the First United Nations Inter-Regional Conference on Petrochemical Industries in Developing Countries	"

<i>Symbol No.</i>	<i>Language of Issue</i> (E- English F- French)	<i>Title</i>	<i>Source</i>
I&NR/Ind.Conf./6	E	Industrial Project Evaluation	United Nations Centre for Industrial Development
I&NR/Ind.Conf./7	E	Issues in the financing of industrial development	"
I&NR/Ind.Conf./8	E	Note by the Secretary-General on the Report of the Expert Working Group on Standardization, Patents and Marketing, Part II Patent (I&NR/Ind. Conf./S.6)	"
I&NR/Ind.Conf./9	E	Extract from resolution on Dynamic Asian Economic Co-operation passed by the Second Ministerial Conference on Asian Economic Co-operation relating to Industrialization and National Resources Development	ECAFE secretariat
I&NR/Ind.Conf./10	E	Training of economic administrators of the developing countries in industrial development	United Nations Centre for Industrial Development
I&NR/Ind.Conf./11	E	Report on the proceedings and recommendations of the inter-regional seminar on the production of fertilizers	"
I&NR/Ind.Conf./12	E	United Nations Technical Co-operation Activities for Industrial Development	"
I&NR/Ind.Conf./13	E	Issues and policies in the promotion of small-scale industries	"
I&NR/Ind.Conf./14	E	The promotion of industrial standardization in developing countries	"
I&NR/Ind.Conf./15	E	The role of the United Nations in training national technical personnel for the accelerated industrialization of the developing countries	"
I&NR/Ind.Conf./16	E	List of United Nations documents on Industrialization	"
I&NR/Ind.Conf./17	E	Activities in the field of industrial development document A/C.2/L.805/Rev.2 submitted to the twentieth session of the Second Committee	"

