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# **Industrial Development Board**

Third Session
Vienna, 24 April — 15 May 1969
Agenda item 7(b)

# ANALYTICAL REPORT OF THE ACTIVITIES IN THE FIELD OF INDUSTRIAL DEVELOPMENT OF THE UNITED NATIONS SYSTEM OF ORGANIZATIONS

Submitted by the Executive Director

We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

# Contents

	Paragraph	Page
Introduction	1 - 4	4
ANALYSIS OF THE DATA	5 - 12	5
TO FUNCTIONAL GROUPS	13 - 32	9 - 20
Industrial planning and policies	13 - 14	9
Mechanical, metallurgical, electrical and transport equipment industries		,
Construction and building materials industries	15 - 17	10
Petrochemical, fertilizer, chemical and related industries	18	. 11
Food processing industries, fisheries and industries processing agricultural products other than food	19 - 20	12
Forest product industries including pulp and paper	21 - 22	13
Light industries (leather and textiles)	23 - 24	15
Small-scale industries	25	16
Mining, mineral, energy and power-based industries	26 - 27	17
Industrial training	28	18
Industrial research and institutions	29 - 30	19
	31 - 32	20
APEAS OF COMMON INTEREST AND AREAS REQUIRING INTENSIFIED		
	<u> 33 - 40</u>	.51
Areas requiring more intensified action	35 - 40	22

		Lage
	List of Tables	
1.	Operational activities in industry of the United Nations system of organizations	7
2.	Industrial planning and policies	Ģ.
3.	Mechanical, metallurgical, electrical and transport equipment industries	10
4.	Construction and building materials industries	11
5•	Petrochemical (including rubber), chemical, pharmaceutical, fertilizer and pesticide (including vacciner) industries	12
6.	Food processing industries, fisheries and industries processing agricultural products other than food	13
7.	Forest products industries including pulp and paper	15
	Light industries (leather and textiles)	16
9.	Small-scale industries	17
10.	Industrial training	19
11.	Industrial research and institutions	20
Anne	Summary of the activities of the World Mank Group in financing of industry in the developing countries	1 - 4

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# Introduction

- In resolution 4 (II) the Industrial Development Board requested the MNIPO secretarist to prepare an analytical report on the basis of the material contained in the consolidated report in order to obtain a view of the over-all effort of the United Nations system in industry. The purpose of the present report, which is prepared in accordance with the above-mentioned request of the Board, is first, to ascertain areas of common interest where co-ordination of activities would lead to a more effective effort by the United Nations system in dealing with the problems of industrial development; and second, to identify relatively neglected areas of work where a more intensified effort would be called for.
- 2. The information contained in the Fourth Consolidated Report (ID/3/56) is a summary of the activities in industry of organizations in the United Nations system. The Report provides better and more comprehensive coverage of the activities of the contributing organizations than in previous years. For the first time, contributions have been received from UNITAR, MFP, ITH, MMO and CATT. In addition, the FAC contribution, which in previous years had been provided as an addendum, has now been incorporated into the main report. Although the coverage and reporting of projects have improved, there is still considerable room for betterment as regards the criteria that govern selection of projects for inclusion in the Report.
- 3. In their contributions to the Consolidated Report, it would appear that the various organizations have interpreted the term industry in the broadest sense. Thus the information contained in the Report covers a number of projects related to peripheral aspects of industry. The term industrialization has been interpreted by some of the contributing organizations to include not only the manufacturing industry but also minerals, electricity, pre-industrial training, transport, education and other social infrustructure. While this may provide a broader picture of the total effort of the United Nations system in the field of industrialization, it tends to complicate the analytical task envisaged in the request of the Board.

<sup>1&#</sup>x27; Abbreviations are identified in document ID/B/56, pages \$-10.

4. The Consolidated Report contains approximately 1, 113 processor intertains by nineteen organizations in the United Nations system, and the material relates to a wide range of activities. The industrial process implemented by the various organizations of the United Nations system are insed essentially on the respective legislative mandates of these organizations. The pattern that emerges is not that of an integrated and planned effort directed towards accelerating the process of industrialization of the developing countries, but rather that of a series of all hoc efforts. Without desping the usefulness or effectiveness of these efforts, there is clearly room for improvement as regards a more co-ordinated and integrated approach.

# ANALYSIS OF THE DATA

- 5. The material received from the World Bank Group related exclusively to the activities of that Group as regards financing, either directly through the International Pinance Corporation or through financial contributions to the development banks in the developing countries. The annex to the present document contains the information supplied by the World Bank Group.
- of the material contained in the Consolidated Report. This being the first attempt, and in view of the fact that not enough time or resources could be devoted to this task, the methods or concepts used for this purpose should be considered as tentative. It is hoped that it will be possible to improve the analysis in future years by refining the basic data and the methodology of the approach.
- supporting activities. The operational activities refer in general to projects financed by UNDP, the Regular Programme of technical assistance and, in the case of UNIDO, other sources such as Special Industrial Services. The operational projects are further classified into long-term (TORP/SE), medium and short-term (Regular Programme, UNDP/TA) and, in the case of UNIDO, short-term SIS projects. In order to provide a common denominator, the projects are calculated in man-months, using an average duration of 50 man-months for

- a TEMP/SF project, "man-months for a TEMP/IA project, and I man-months for an SIS project. It is more difficult to find a common denominator for the supporting activities, which consist of studies, research, publications and meetings, and these activities are reported under the appropriate functional category.
- 8. The functional classification of the Consolidated Report has been reorganized to conform more closely to the organization of the programme of
  work of UNIDO. Data have been classified into ten areas, which were used as
  a framework for the analysis of the activities of the various organizations.
- 9. Table 1 below contains an estimate of operational activities in the field of industry of the United Nations system in 1968, in terms of expert man-months, classified by functional areas. Fellowships and equipment, sometimes associated with the operational activities, are not included. Bearing in mind the qualification that the data should be considered as rough orders of magnitude, it can be seen that, of the total man-months devoted to operational activities, 52 per cent are devoted to industrial institutions and services; 41 per cent to manufacturing sectors; and 7 per cent to industrial planning and related activities. As regards assistance provided to the manufacturing sectors, the construction and building materials sector has received the least assistance and the food processing and fisheries sector has received the most. The latter is accounted for by the substantial operational activities in the form of Special Fund projects in food research and technology institutions implemented by FAO.
- engineering, machine tools, instrumentation, agricultural machinery, ship-building and transport equipment, has received approximately 4 per cent of the total assistance. Most of these are significant industrial sectors that provide dynamic elements to the process of industrialization, but even such essential sectors as textile and leather industries have received relatively little attention. As regards industrial institutions and services, about 33 per cent of the total assistance was devoted to the field of industrial training and about 10 per cent to the setting up of industrial research and related institutional establishments.

# Obecational activities in industry of the United Nations system of Occanizations

	Inng-term projects	projects	Short and medium-term projects (UNOP/IA and	MCP/1A and	Short-ter	Short-term projects	[e}o]	ھ
Functional arouns	Ram-Bonths P.	Per cent	Ran-Bonits Per cen	Par cent	Can-wonths	Per cent	Han-months	Per cent
A. Industrial planning and policies	9	7	252	16.3	到	16.9	1.247	7:
B. Industrial sectors								
Mechanical, metallurgical, electrical and transport equipment industries	300	. 2.3	232	6.7	900	17.3	732	4.2
Construction and building materials industries	ı	•	117	3.5	45	3.9	<b>16</b> 2	6.0
Petrochemical, fertilizer, chemical and related industries?	750	ئ. ھ	520	7.6	130	11.2	i, 136	6.5
Fied processing industries, fisheries and industries processing agricultural products wither than feed.	0001	18.1	8999	7.9	165	3.3	3,063	17.6
Forest product industries including pulp	1,300	10.0	168	5.0	35	3.0	1,503	т. Д
light industries (leather and textiles)	300	2.3	168	0.8	105	9.1	573	
Total industrial sectors	2.000	38 E	1.509	3	89	58. 8.	7, 169	
Countrial services				,	;	6	i. Pr	
[sall-scale industries	8	6.2	240	-	4	0.0	.1	., .;
ocustrial training	5,500	42.5	295	16.5	96	æ [~	<del>ن</del>	5.50
inger ping meseamen and institutions	1,150	න න	528	15.6	75	မာ မာ		0.0
Total industrial services	7.450	27.5	1 328	39.2	280	C.	9000 2000	
SRAND TOTAL	12, 350	90]	3 266	<b>E</b>	1,155	8	***	35
			•	•	4 4 4 4 4 4 4 4		· · · · · · · · · · · · · · · · · · ·	

a The total man-wonths contain also date on activities related only indirectly to manufacturing. It was not possible to ascertain The exact industry component of a eye activities.

1 . coemational activities were reported for the group "Wiring, sineral, energy and power-based industries".

- 11. Long-term Special Fund projects account for a significant share of operational activities. Of the total man-months devoted to the operational activities, about 75 per sent originate from the Special Fund component of UNDP. As to the distribution of long-term assistance among the various functional groups, about 4 per cent of the total man-months is devoted to projects in industrial and project planning; 39 per cent to the industrial sectors; and the remainder to industrial services and institutions. training alone accounts for some 42 per cent of the total man-nonths devoted to industry. In industrial sectors, a significant share of assistance, amounting to about 28 per cent of the total, is devoted to forestry and food precessing industries, and it should be noted that these projects bear little direct relationship to manufacturing activities proper, being oriented primarily towards agriculture and forestry. Barring the food and forestry sectors, the long-term type of assistance (UNDP/SF) to the remaining industrial sectors is insignificant. The resources provided under the SIS programme have slightly alleviated the situation in this respect: some 60 per cent of the man-months financed under the SIS programme is devoted to assistance to industrial sectors, although the share of the SIS programme in total United Nations assistance to industrial sectors is rather small, being of the order of 10 per cent.
- 12. With regard to non-operational activities, research, studies and meetings are shown in number of projects since they could not be translated into manmonths because of the lack of data. These activities are thus not strictly comparable in quantitative terms with the operational activities. However, the material presented here may throw light on the general work undertaken in this area by the United Nations system. There is not necessarily any direct quantitative relationshi, between operational and supporting activities although the supporting activities are intended to build up a store of information and knowledge that should then lead to action in the field. Many of the supporting projects of UNIDO and of the regional economic commissions are continuing activities that derive from the responsibilities of the United Nations Secretariat in the field of international economic co-operation and from a certain tradition of research and publications in that field. The United Nations proper thus accounts for the largest part of non-operational activities carried out in the United Nations system. The work of the regional economic

commissions is geared to general promotion of release on a consequence application of information on escharge nevel ament matters at their respective regions. According to information receives from their most bers of the United Nations family, great sucharis is given to open trend were in industry.

# REVIEW OF WORK OF THE UNITED NATIONS SYSTEM ACCORD, NO TO FUNCTIONAL GROUPS

Industrial planning and policies 2

# Table 2

# Industrial planning and policies

		ESV	BUA	XAPE	<u>eve</u>	RITY	LIMPRO B	UNIDO	110	TOTAL
I.	Operational activities (in man-months)									
	Long-term projects (UNDP/SF)		**	***	**	-	•	3136	140	100
	Short and medium-term projects (UNDP/TA and Regular Programme)	**		**	24	<del>///</del>	•	47?		1y#32)
	Short-term projects (SIS)	-	-	***	dige.	•		¶ taji ji		<u> </u>
	Total (man-month)	-	-	**	24		***	1.017	· Or	14/4/
	(per cent)	••	-	-	2.0	*	dire	<u>_81.5</u>	نين	00.0
II.	Supporting activities (number of projects)									
	Research and studies	18	14	ಕ	10	Δ	e	11	ŧ.,	1/#.
	Meetingr	*	4	3	3	*	may .	7	F.	r <b>6</b>

13. As mentioned earlier, only 7 procent of the total man-months in operational activities was devoted to problems under the heading of industrial planning and policies. The bulk of the operational activities in this field, amounting to 81 per cent, was undertaken by INVIDO and the remainer of

<sup>2/</sup> This group corresponds to chapte w 1-1/ of the Consolidated Report and to activity groups 12-19 of the SNIPO crampationation by contains a material programme of work for 1970 (document 10/ //4).

II.O. The work of UNIDA conceinted of implementing a number of Special Fund projects on centres for industrial studies and development. Short and medium-term assistance was also provided in the preparation of feasibility studies, the formulation and implementation of projects, and industrial programming and policies. The work of II.O in this area was largely concerned with industrial relations, wage policies and labour laws. II.O has also undertaken a number of studies on the quantitative relations between economic growth and employment, on the development of human resources and on matters relating to wages.

14. Approximately one hundred projects dealing with research and studies on industrial planning and policies were reported for 1968, and seventeen meetings were organized in the same period. The work of the regional economic commissions consisted mainly of preparing annual regional surveys, statistical publications and studies on industrial sectors. The activities of UNIDO included the collection and analysis of industrial programming data, preparation of profiles of manufacturing establishments, studies on formulation and implementation of projects, studies on promotion of investment, preparation of industrial surveys and studies on exports of manufactures.

# Mechanical metallurgical electrical and transport equipment industries

# Mechanical metallurgical electrical and transport equipment industries

I. Operational activities (in man-months)	ECA	ECAFE	<u>BCE</u>	ECLA	UNIDO	ILO	TOTAL
Long-term projects (UNDP/SF) Short and medium-term projects (UNDP/TA and Regular Programma)	•	-	<b>vita</b>	-	237	63	300
Short-term projects (SIS)		-	-	-	200	32	232
Total (man-months)	**	-	-	****	200	**	200
(per cent)	_		-	-	<u>637</u>	<b>9</b> 5	732
II. Supporting activities (number of projects)	_	•	**	-	87.0	13.0	100.0
Research and studies	5	1	10	3	9	2	30
Meetings  3/ This group corresponds to	-	-	1	-	4	5	30 10

<sup>3/</sup> This group corresponds to chapters VII-YIII of the Consolidated Report and to activity groups 1-2 of the UNIDO classification as contained in its programme of work for 1970.

- one of industries in the group, and transport equipment, and electrical engineering, machine tools, telecommunication equipment, incommentation, agricultural machinery and equipment, shipbuilding, and transport equipment. Considering the range of industries in this group, the volume of specialization activities is rather small, namely 4 per cent of the total activities of the United Nations system in the field of industry.
- 16. UNIDO provided 80 per cent of the assistance to the developing countries in this area, including three Special Fund projects and short-term technical assistance to the metalworking industry.
- 17. The supporting activities in this area were undertaken largely by the regional economic commissions, UNIDO and ILO. Much of the work of the regional economic commissions dealt with research and studies in the metallurgical industries, in particular on iron and steel and non-ferrous metals. Attention was also given to the mechanical engineering industries. UNIDO organized a number of meetings including one on design, manufacture and utilization of dies and jigs and one on electronic industries and the Second Interregional Iron and Steel Symposium in Moscow. ILO has undertaken preparatory work for the eighth session of the Iron and Steel Committee which is to be held during the second half of 1969.

Construction and building materials industries

Table 4

Construction and building materials industries

		<u>esa</u>	<u>ECA</u>	ECE	<u>UNESOB</u>	UNIDO	11.0	TOTAL
I.	Operational activities (in man-months)							
	Long-term projects (UNDP/SF)	-	-	-	-	-		-
	Short and medium-term projects (UNDP/TA and Regular Programme)	) -	-	5	-	112	-	117
	Short-term projects (SIS)	-	-	-	-	45	-	45
	Total (man-months)	-	-	5	-	<u> 157</u>	-	162
	(per cent)	-	-	3.1	-	96.9	-	100.0
II.	Supporting activities (number of projects)							
	Research and studies	٠,	2	5	1	\$		14
	Meetings	-	-	3		<b>;</b>	-	€,

<sup>4/</sup> This group corresponds to chapters XIV and XV of the Concollidated Deport and to activity group 3 of the UNIDO classification as contained in its programme of work for 1970.

Operational activities in this area, mainly married out by MELDo, dealt with the establishment of an acceptor plant, rehabilitation and modernization of a coment factory and acciptance to accoming and pattery industries. UNIDO also organized the Interregional Seminar on the Development of Slay Building Materials Industries in Copenhagen in co-operation with the Government of Denmark and with the participation of the United Nations Centre for Housing, Building and Planning. The work of the regional economic commissions consisted of undertaking a number of studies on the construction and building materials industries and included the organization of: a training course for building contractors in the East African subregion; a seminar on industrialization of housing in the ECAFE region; and the study tour of the ECE Committee on Housing, Building and Planning following the annual session of that Committee.

# Petrochemical, fertilizer, chemical and related industries

# Table 5

# Petrochemical (including rubber). chemical, pharmaceutical, fertilizer and pesticide (including vaccines) industries

		ESA	ECA	ECAFE	ECE	ECLA	UNESOB	UNIDO	ILO	FAOa/	TOTAL
1.	Operational activities (in man-months)										
	Long-term projects (UNDF/SF)	_	***	_	-	**	-	200	_	550	<b>7</b> 50
	Short and medium-term projects (UNDI/TA and									<i>)</i>	1)0
	Regular Programme)	-		****	·24 <b>-</b>			168	-	64	256
	Short-term projects (SIS)	-	-	-	-	_	<b>***</b>	130	_	_	130
	Total (man-months)	-	7M 4866		24	<b></b>		<b>49</b> 8		61.1	
	(per cent)	_			0 0					614	1.136
T I	· •	<del></del>	and and appr			****	****	<u>43.8</u>	- 5	4.0	100.0
11.	Supporting activities (number of projects)										
	Research and studies	- 1 -	_	_	P	•	_	10	1	1	1.6
	Meetings	-		1	_	•••	-	 8	Ţ	1	16
,							_		-	1	10

<sup>2&#</sup>x27; The date of FA' refer to activities related only indirectly to manufacturing. It was not possible to ascertain the experied stry component of these activities.

The Purchidated Pep rt died of contain all antivities ordertaken in this area up the United Mations system see, for example, A' Mording Group papers on Housing and Translation, thirteenth section, 1969, Mierna).

his group corresponds to small term XVI-CIX which note limited Report and to striving cromps described the corresponding action as a retained in its programme of war for 1970.

- 19. UNIDC is the executing agency for four "ADI/SE projects and has helped to promote fertilizer and petrochemical industries and the production of parethrom and pesticides based on chlorine and bromine. Assistance was also provided to a number of countries under the SIS programme in the form of feasibility attained on provision of plant specifications and evaluation of tenders. The is the executing agency for a number of UNDE/SE projects for increasing farm production through fertilizer use and it has assisted eight countries in soil analysis and in the appropriate use of fertilizers.
- 20. The supporting work in this area was undertaken largely by UNIDO; eight meetings were organized on various aspects of manufacture and use of basic chemicals and salt industries. The work of the regional economic commissions consisted of studies on petrochemical and fertilizer industries, including the organization of training courses.

# Food processing industries, fisheries and industries processing agricultural products other than food 7/

Food processing industries fisheries and industries processing agricultural products other than food

		ECA	UNIDO	FAO <sup>a</sup>	TATOT.
I.	Operational activities (in man-months)				
	Long-term projects (UNDP/SF)	***	6	2,350	2,550
	Short and medium-term projects (UNDP/TA and Regular Programme)	-	64	504	566
	Short-term projects (SIS)	-	165	-	165
	Total (man-months)	-	229	2 <b>.8</b> 54	3.083
	(per cent)	-	7.4	92.6	100.0
II.	Supporting activities (number of projects)				
	Research and studies	1	· ·	3	$\epsilon_{s}$
	Meeti ngs	-	1	10	11

The data on FAO refer to activities related only indirectly to minufacturing.

It was not possible to ascertain the exact industry companies of trese activities.

This group corresponds to chapter XY-YYTT of the down to dated concert and to activity group 6 of the "MID" classification as contained to its programme of work for 17%.

- Constantial share of technical assistance provided to the developing countries by the United United States of organizations. FA is the executing agency for 49 UNDI/SF projects in this area, of which—projects relate to food to hnology, animal and plant products, agricultural marketing and animal humbandry; 14 to fisheries, fishery research, training, feasibilit studies on new methods of utilizing fishery resources and fish processing; and three projects to sheep treeding, wool and rubber research. Most of these projects are oriented towards problems of agriculture and fisheries and have only an indirect, and in some cases rather remote, relationship to manufacturing activities proper. The fact that most of the technical assistance rendered by the United Nations system of organizations in this area, as in some other areas where similar conditions obtain (e.g. forest industries), is of a "para-industrial" rather than of an industrial nature makes direct quantitative comparisons, in terms of man-months, very uncertain.
- 22. UNIDO provided assistance, mainly under its SIS programme, in improving technology relating to millet and cassava, in reorganizing fruit and vegetable processing plants and canning plants for citrus fruits and in establishing plants for the production of vegetable oil. UNIDO also organized a ceminar on integrated food processing.

Table Threat product industries including pulp and paper

		ECA	ECE	<u>ECLA</u>	<u> intro</u>	<u>FAC</u>	TATOT
1.	Operational activities (in man-months) Long-term projects (UNDP/SF)	-	-	_		1,300	1,400
	Short and medium-term projects (UNDP/TA and Regular Programme)	-	-	-	104	Nο	168
	Short-term projects (SIS)	***	_	***	35	***	35
	Total (man-months)	-		-	139	1,364	1,503
	(per cent)	**	**	•	9.2	90.8	100.0
II.	Supporting activities (number of projects)				v		
	Research and studies	2	1	1	-	6	10
	Meetings	•	1	-	•	1	2

The data on FAO refer to activities related only indirectly to manufacturing. It was not possible to ascertain the exact industry component of these activities.

3. PAO is the executing agency for 26 projects in forestry and forest industries. The projects pertain to such subjects as surveys of forestry resources, silviculture, reforestation and logging. Some pre-investment studies were undertaken by PAO on forest industries development and a number of projects deal with training in forestry (e.g. logging) and sawmilling. Assistance was also provided to the pulp and paper industries by PAO, as part of its programme in forest industries.

<sup>8/</sup> This group corresponds to chapters XXIV and XXV of the Consolidated Report and to activity group 6 of the UNIDO classification as contained in its programme of work for 1970.

A. A. A. tuning provided by CMIDO deart city the improvement is design and production of furniture, improvement of the removal relationary and production of matches and plywood. The activities of the removal economic communications included studies on economic and technical aspects of wood processing and the development of forest product industries. Advisory missions to various countries in the regions were organized by the ECLA/CMIDO/FAO Forest Advisory Group for Latin America, and similar activities were undertaken in Africa by FAO in co-operation with ECA. The observations made in the preceding group on the comparability of data are also valid for this group.

# Light industries (leather and textiles)

Table 8
Light industries (leather and textiles)

					•		
Ι,	Operational activities (in man-months)	ECA	<u>RUE</u>	UNIDO	ILO	PAO	TOTAL
	Long-term projects (UNDP/SF)  Short and medium-term projects (UNDP/TA and Regular Programme)	•	***	-	ines	3 <b>0</b> 0	300
	Short-term projects (SIS)	***	***	144	-	24	168
	Total (man-months)	-	***	10%	-	-	105
	(per cent)	-	-	<u>249</u>	-	324	573
11.	Supporting activities (number of projects)		- ,	<u>56.5</u>	•	43.5	100.0
	Research and studies Meetings	2	6	2	1	1	12
		***	3	1	••	*	4

25. FAO is implementing six Special Fund projects on hides, skins and leather development which deal with improvement of raw hides and skins and of tannery operations, training in flaying, curing and handling of hides and skins and marketing of processed hides, skins and leather. UNIDO implemented a number of UNDP/TA and SIS projects in rehabilitation and modernization of existing plants and in improving the technology of leather tanning and tannery operations. Studies on the leather and footwear industries in Central and North Africa were undertaken by ECA. In the textile industry sector.

Peport and to activit from proof the consolidated its programme of work for 1975.

# Small-scale industries 10/

Table )
Small-scale industries

		Regional economic				
		commissions	UNIDO	11.0	PAO	TATAL
I.	Operational activities (in man-months)					
	Long-term projects (UNDP/SP)	•	150	650	nine:	ਰੇ00
	Short and medium-term projects (UNDP/TA and Regular Programme)	-	176	64	-	240
	Short-term projects (SIS)	-	115	-	-	115
	Total (man-months)	•	441	714	**	1.155
	(per cent)	•••	38.2	61.8	-	100,0
II.	Supporting activities (number of projects)					
	Research and studies	1	Li	3	1	17
	Meetings	**	2	2	-	4

26. ILO, UNIDO and the regional economic commissions have implemented a number of projects in the field of small-scale industries. The work of the regional economic commissions is largely concerned with supporting activities, whereas the work of UNIDO consists of both supporting and operational activities. ILO also has been engaged in both supporting and operational activities; it is responsible for ten Special Fund projects and has provided short-term assistance under UNDP/TA in this area. UNIDO is the

<sup>10/</sup> This group corresponds to chapter V of the Consolidated Report and to activity group 11 of the UNIDO classification as contained in its proprogramme of work for 1970.

executing agency for three Special band projects in Iran, Uganda and Turkey (in the latter country, in co-operation with IIC). UNIDO also provided assistance in the form of TO UNIDO/PA projects and 33 SIS projects through which it rendered advice to Governments on planning of small-scale industries and establishment of industrial estates. A number of meetings were organized by UNIDO on small-scale industries in co-operation with IEQ and FAO.

27. Work is being carried out by ILO and UNIDO in the field of industrial extension services, training and demonstration. There is need for the establishment of new industrial extension centres and for the strengthening of existing ones in many developing countries. To that end, UNIDO proposes to undertake jointly with ILO a programme of action including, in particular, the organization of joint missions to selected countries.

# Mining, mineral, energy and power-based industries

28. The United Nations system of organizations has implemented a large number of projects in this area. The projects reported in the Consolidated Report refer to supporting activities only. A very substantial number of operational projects are being financed by UNDP in mineral surveys, power development etc., and the lack of information on such projects, which prevented the inclusion of these projects in the Consolidated Report, makes it difficult to present a true over-all picture.

Table 10
Industrial training

		ECA	ECLA	UNIDO	0.11	UNESCO	TATOT
I.	Operational activities (in man-month	<u>s</u> )					
	Long-term projects (UNDP/SF)	-	-	5C	2,650	2,800	5,500
	Short and medium-term projects (UNDP/TA and Regular Programme)	2	24	16	456	64	560
	Short-term (SIS)	-	-	<b>3</b> 5	55	-	90
	Total (man-months)	2	24	101	3,161	2.864	6,150
	(per cent)	C.	4	1.6	51.4	46.6	100.C
II.	Supporting activities (number of projects)						
	Research and studies	5	1	1	10	1	18
	Meetings	8	-	-	2	4	14

29. Industrial training has received considerable attention by the organizations in the United Nations system. The data in table 10 cover the training activities of five organizations but other organizations such as WHO and IAEA also have training activities that have not been reported. Moreover, because of the general method of analysis adopted in this document, only the man-months of experts have been taken into account and not the fellowships. Thus the programmes of fellowships which form the core of training are not included in the Consolidated Report and are not reflected in the statistics on industrial training in table 10. SHIDO, for instance, is conducting in various developing countries a number of in-plant training programmes for which resources have been made available by the host countries and by UNIDO, through its fellowship programmes.

This group corresponds to chapter VI of the Consolidated Report and to activity group 10a of the UNIDO classification as contained in its programme of work for 1970.

30. ILO and UNESCO are implementing a large number of operational projects. ILO is the executing agency for vocational training projects, an area which has been agreed upon by UNIDO and ILO to be the responsibility of the latter. It is estimated that almost 75 per cent of ILO activities in the area of vocational training relates directly or indirectly to the development of industrial skills. UNESCO is providing assistance in the establishment of institutions within the educational system for the training of instructors, technicians and engineers. It serves as the executing agency for 28 Special Fund projects providing assistance to the developing countries in improving technical education in the universities. The work of UNIDO is concerned with bridging the gap through its in-plant training programmes, between skills acquired at university and skills required by industry. UNIDO has organized training programmes in specialized technical fields, in management, in evaluation and implementation of projects and in investment promotion.

# Industrial research and institutions 12

Table 11
Industrial research and institutions

		,	<u>esa</u>	ECA	ECAPE	ECE	UNIDO	ILO	PAO	UNESCO	TOTAL
I.	Operational (in man-mon										
	Long-term p (UNDP/SF)	rojects	-	***	-	<u> </u>	700	50	-	400	1,150
	Short and m projects (U	NDP/TA and					4				
	Regular Pro	gramme)	-	-	-	32	192	**	240	64	528
	Short-term	(SIS)		-	-	-	75	-	-	-	75
	Total	(man-months	)-	-	-	32	967	50	240	<u>464</u>	1.753
		(per cent)	-	-	-	1.8	55.2	2.8	13.7	26.5	100.0
II.	Supporting (number of								*		
	Research an	d studies	2	2	-	2	6	1		15	28
	Meetings		3	1	2	1	2	-	_	7	16

This group corresponds to chapters XXX and XXXI of the Consolidated Report and to activity groups 7-9 of the UNIDO classification as contained in its programme of work for 1970.

- and industrial research, testing laboratories, in fastrial standardization, industrial legislation including patents, and industrial information. A considerable number of operational activities have been undertaken principally by UNIDO, FAO and UNESCO. The work undertaken by FAO in the field of foot research and technology and in forestry research has been mentioned earlier. UNESCO is the executing agency for a number of UNDP/SF projects dealing with power, engineering, industrial testing and research, and mechanical engineering research and development. Research and training as well as the organization of facilities for research and development form part of these projects. UNIDO is the executing agency for projects dealing with the establishment and operation of technological research institutes and for projects on industrial standardization. These institutes are concerned with applied research, testing of local materials, formulation of projects and, in some cases, provision of advice to industry on various plant problems.
- 32. In the field of industrial information and documentation services, work is carried out by UNESCO and UNIDO, the former dealing with scientific and technical documentation in general, and the latter with technological and industrial information, including the operation of an industrial enquiry service. UNESCO has organized a number of meetings dealing with the application of science and technology to development and has published documentation on national science policies. The regional economic commissions have undertaken a number of studies on the transfer of technology, and ECAPE held a Ministerial Conference on the Application of Science and Technology to the Development of Asia.

# AREAS OF COMMON INTEREST AND AREAS REQUIRING INTERSIFIED ACTION

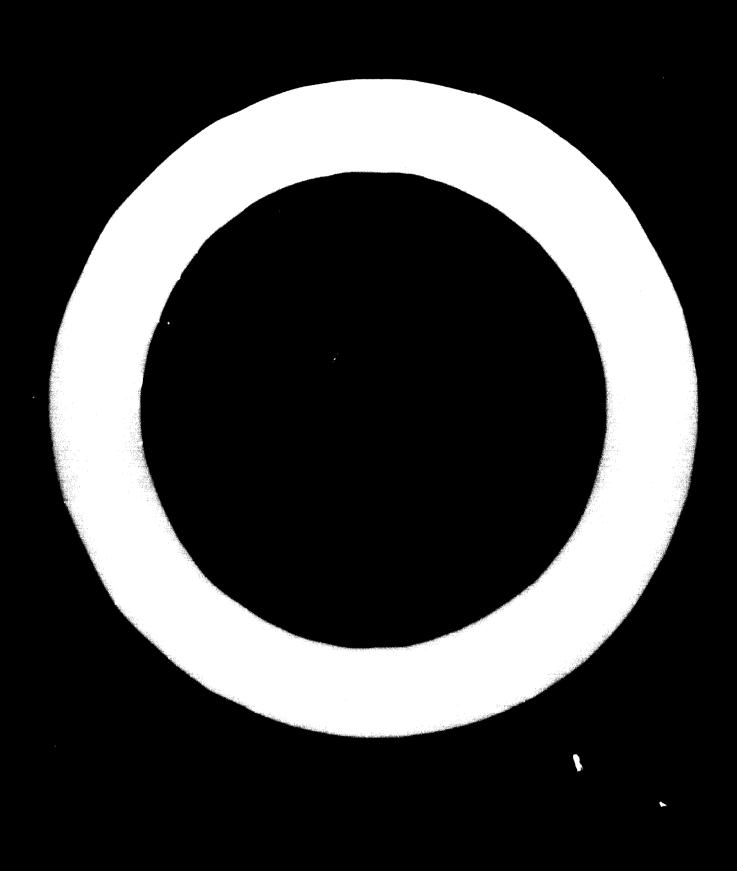
33. While the review of activities of the organizations in the United National system, contained in the above sections, may have provided a general pattern of the distribution of the activities in the field of industry, no definite conclusions can be drawn from it. The analysis has revealed the limitations of the data contained in the Consolidated Report.

44. Effects are now being made by 1.00 to nart, and co-ordinate its activities with those of the relevant operallies accordinate, the regional economic commissions and mpga, and it is hoped that, as a result of the discussions that are envisated and inter way, it will be possible to evolve a well co-ordinated programme for the infustrial sector. An account of these efforts is contained in document ID/3/55 (The central role of UNIDO in co-ordinating the activities of the United Nations system in the field of industrial development).

# Areas requiring more intensified action

- 35. A general conclusion that may be derived from the material contained in the Consolidated Report is that a number of areas in the field of industrialization have to date received inadequate coverage. Though the nature of the data does not permit a quantitative evaluation, it is nevertheless possible to enumerate a certain number of such areas. The usefulness of such a stock-taking exercise consists not only in that it provides valuable indications as to the gaps in the activities of UNIDO itself, but, in a number of areas also, as regards the entire complex of activities of the United Nations system of organizations in the field of industrialization. The identification of such activity gaps may be considered as one of the important aspects of the central co-ordinating role of UNIDO, which includes, among other things, provision of general guidance for the orientation of United Nations activities in industry.
- 36. The areas in which a greater effort of assistance appears to be required are organized in three groups which correspond broadly to the three main groupings of the work in UNIDO:
  - Group A: Industrial policies; promotion of capital investment; promotion of exports.
  - Group B: Government machinery for industrial development; industrial property, legislation and potents; standardization; industrial information.
  - Group C: Industrial inputs in agriculture, such as agricultural machinery, fertilizers and insecticides; electrical engineering and electronics; glass and ceramics; pharmaceuticals; repair and maintenance in industry.

- 37. While the above list is self-explanatory, a few comments are called for. As regards Group A, there is a definite need for increased admintance to Governments in the formulation of policies and in the development of an effective machinery which is at the present time practically non-existent for providing "market" or clearing facilities between industrial investment opportunities in developing countries and potential suppliers of capital in developed countries. There is also a growing interest on behalf of Governments of developing countries in promoting exports of their manufactures in order to diversify both their industrial output and the structure of their exports.
- 38. Group B relates to assistance in strengthening the institutional structure of the developing countries in the field of industrialization. Although some work is being carried out in the areas enumerated under this Group, it still falls far short of the needs of the developing countries. It is hardly necessary to stress that one of the major obstacles to accelerated industrialization in developing countries is the basic weakness of their administrative machinery and the lack of institutional support of industry.
- 39. Group C includes a certain number of industrial branches in which it has so far not been possible to provide the necessary support for lack of rescurces in the Organization. In this field, a larger effort is required. Repair and maintenance in industry is a special area in which UNIDO, as can be seen from the documents submitted to the Board, has initiated a major programme that, given the necessary resources, can be developed substantially in the course of the coming years.
- 40. In some of these areas, the required intensification of activities involves a co-operative effort of the various United Nations agencies and the regional economic commissions active in the field of industrialization. In dealing with the question of harmonization and co-ordination of programmes in industry this particular problem is also being taken into account.



# ANNEX

SUMMARY OF THE ACTIVITIES OF THE WORLD BANK GROUP IN THE PINANCING OF INDUSTRY IN THE DEVELOPING COUNTRIES

- 1. During the 1 %7-1 % fiscal year, the World Sank extended loans to industry amounting to a total of \$1 d.5 million, of which \$150 million was in the form of loans to fourteen private development finance companies and the remainder was direct assistance to a number of manufacturing enterprises.
- 2. During the same fiscal year, the International Finance Corporation made commitments of approximately \$50.7 million to a number of manufacturing enterprises.
- 3. In addition, information was received from the World Bank on (a) cumulative figures of commitments by the International Finance Corporation, by industrial activities, for the period 1957-1968, and (b) cumulative figures of aggregate financial assistance provided from the initiation of operations until the end of 1967 by twenty-six development finance companies with which the World Bank Group is associated; these figures are also classified by industrial activities. In both cases the classification corresponds to the chapter classification of activities in the Consolidated Report (ID/B/56). Information under (a) appears in table 1 and under (b) in table 2 below.
- 4. The cumulative total of commitments by the World Bank to the development finance companies as of 30 September 1968 amounted to an aggregate of \$726.9 million.

# Table 1

Cumulative figures on commitments by the International Pinance Corporation for the period 1957-1969, by types of activity

(Data as of 30 June 1968)

	Millions of US dollarsa
Mechanical engineering industries (machinery, machine tools, plant and equipment)	. v dorranga/
Electrical and electronic industry, including telecommunication equipment, appliances and electric instruments	6.9
Transport equipment	7.5
Metallurgical industries (iron and steel; non-ferrous metals including aluminium)	4•2
Construction and building materials industries	46.9
	22.2
Chemicals and pharmaceuticals Pertilizers	8.0
,	33.2
Food processing industries, including those based on both animal and plant products	
Pextiles	19.5
orest product industries and a	17.4
orest product industries except pulp and paper	0.7
eather industries	32.5
· ·	0.4
ining and mineral resources based industries	24.3
nergy and power and energy and power based industries	12.0
	3.0
torage and agriculture	2.7
evelopment Finance Companies	27.4
iscellaneous industries	3.0
Total	271.8
	£ 1 <b>* 5</b> 0

M Conversion rates used were exchange rates prevailing at 31 December 1967.

# Table / :

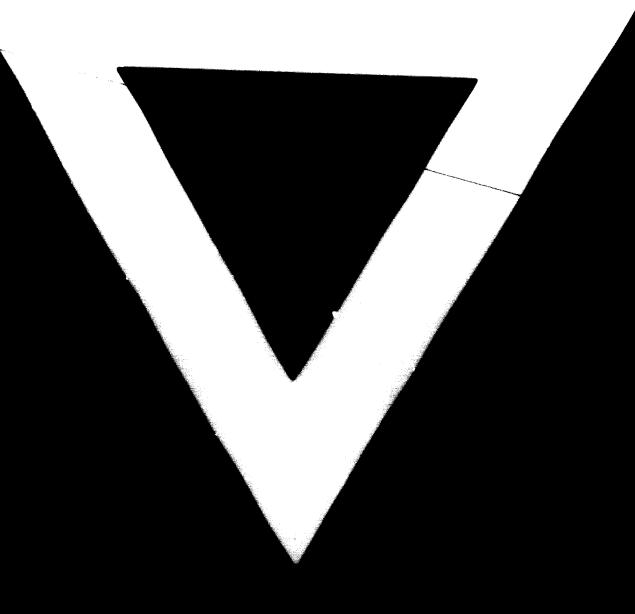
Cumulative figures on aggregate financial as: ance provided from the initiation of operations through 1907 by Development Finance Companies affiliated with the World Bank Group

	Millions of US dellarsb
Mechanical engineering industries (machinery, machine tools, plants and equipment); electrical and electronic industry, including telecommunication equipment, appliances and electric instruments; instruments, including precision and optical instruments, agricultural machinery and equipment; transport equipment	<b>9<b>50 •</b>3 ≾</b>
Shipbuilding and the maritime industry	18.14
Metallurgical industries (iron and steel; non-ferrous metals including aluminium)	185.96
Construction and building materials industries	55.09
Ceramics, including glass and earthenware	78.49
Chemicals and pharmaceuticals	217.50
Petrochemicals (including rubber industries)	65.30
Fertilizers	
Pesticides industries, including vaccines etc.	
Food-processing industries, including those based on both animal and plant products; fisheries and fish processing industries; industries processing agricultural products other than food of animal or vegetable origin; large-scale agriculture and livestock farming	
Textiles and clothing industries	335 <b>.0</b> 3 <b>340.</b> 89
Forest product industries including pulp and paper	<b>14V</b> • * * * *
	146.45
Leather industries	5.81
Mining and mineral resources based industries	89.57
Energy and power and energy and power-based industries	23.82
Miscellanecus industries (	101.58
Total	1,775.87
	and the second s

The term "financial assistance" is taken to mean medium and long-term loans and equity investments. However, for a few development finance companies, it includes guarantees and underwritings.

b/ Conversion rates used were exchange rates prevailing at 31 December 1:467.

c/ Includes tourism, hotels, personal services, merchandising, warehousing, and other activities not covered by the above industrial sectors. Also includes equity inventments of some companies amounting to \$74.51 million on industrial classification which is not available.



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