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United Nations Industrial Development Organization

Industrial Development Board

Fourth Session Vienna, 20 - 30 April 1970

Agenda item 5(a) and (b)

PROGRAMME OF WORK FOR 1971 INCLUDING REPORT OF ACTIVITIES

FOR 1969 AND UPDATING OF 1970 PROGRAMME

PART TWO

Group 10a: Industrial Training

Group 10b: Industrial Management and Consulting Services

NOTE

Documents ID/B/64/Add.1-15 contain a detailed description of the fifteen groups of activities of UNIDO for the years 1969 to 1971. A list of these fifteen groups appears in the preface to document ID/B/64.

The material in each addendum is organized as follows:

Introduction

- Operational Activities
- Supporting Activities

Section A on Operational Activities lists the field projects by technical assistance programmes (UNDP/SF, UNDP/TA, RP and SIS). Under each programme appears a detailed description of the projects approved as of 30 September 1969 and a forecast of new projects. The list of approved projects is followed by a summary of expenditures. Projects that have been completed in 1969 (barring possible extension) are indicated by an asterisk.

Section B on Supporting Activities is divided into "projects" corresponding to major areas of work, each project being subdivided into "components". Under each component, details of expenditure are given for the following items: staff man/months, meetings and consultants. The priorities A and B, under which components are listed, apply to the programmed activities in 1970 and 1971, priority B indicating that implementation is subject to availability of funds. Unless otherwise indicated, expenditures on supporting activities are financed from the UNIDO Regular Budget. Because of the nature of the item, expenditures on publications are listed separately in this section. Finally, the section contains summary tables of expenditures on supporting activities by sources of funds for 1969, 1970 and 1971.

INTRODUCTION

Group 10 combines two areas: industrial training (10a) and industrial management and consulting services (10b).

Industrial training - 10a

- 1. UNIDO organized three types of in-plant group training programmes, namely pre-employment training, upgrading, and training for senior officers. The programmes for pre-employment training are usually carried out as UNDP/SF projects. The first project of this kind became operational in 1969, and it is assumed that during 1970 and onwards additional projects will be initiated. UNIDO has also taken the initiative of organizing in-plant group training programmes for engineers from developing countries who have been employed in industry for three to five years and in-plant group training for senior level engineers.
- 2. The upgrading programme has, to date, been conducted by sectors such as iron and steel, electricity and textiles. A recent UNIDO survey discloses that managers in industry in the developing countries would like to have this programme continued and expanded to other industrial sectors as well as to fields of common interest to industry, such as repair and maintenance and quality control.
- 3. The emphasis of the programme in Group 10a is on support of operational activities in organizing and servicing in-plant group training programmes, rather than on studies, meetings and the like. The latter types of activities are aimed at a better servicing of the training programmes.
- 4. An important element of all technical assistance projects is training of local personnel, but the number of technical assistance posts in industrial training is limited. In 1968 there was only one post under UNDP/TA, but the number increased to five in 1969.
- 5. The first in-plant group training programme for newly graduated engineers became operational in 1969. The main field activity that year concerned the implementation of eight in-plant group training programmes in shoe production,

mechanical industry, textile manufacturing, electrical industry, pulp and paper, iron and steel, metalworking industries and food processing. The total number of engineers from developing countries trained in 1969 was 144 (approximately 560 man-months). The number of applications received generally exceeded the number of places available, although there were some vacant openings owing to late receipt of nominations or last minute cancellations.

- 6. UNIDO completed a survey among participants and their employers on the results of the in-plant group training programmes conducted from 1965 to 1969. The results show that approximately 90 per cent of the former participants benefited from the training, and that more than 80 per cent were in a position to apply their training upon return to their home countries.
- 7. In accordance with resolution 8 (II), paragraph 6, adopted by the Industrial Development Board at its second session, UNIDO has prepared a provisional report on a detailed long-term programme for training of technical personnel of developing countries. The report has been drawn up following consultations with the regional economic commissions, UNESOB, UNDP, UNESCO, UNITAR, ILO and other organizations. 1
- 8. Another study, prepared by UNIDO in connexion with the International Education Year, 1970, covered the experience of UNIDO with regard to the inplant training programmes for engineers. Within the framework of the in-plant training programme, about 200 to 300 young engineers will receive pre-employment training in industry each year in the developing countries. Financing has been secured for eleven of the twenty in-plant group training programmes originally planned for 1970. The additional programmes will be carried out subject to availability of funds.
- 9. From 1971 onwards, the annual figure of participants in the UNIDO programmes will be in the vicinity of 500; by way of comparison, the total number of trainees from 1965, when UNIDO began the in-plant group training programmes, until 1969 was about 450. The increase in the number of trainees shows the demand for this type of training.

As at the time of writing this document, the text of the report is not yet available. Upon receipt, it has to be circulated to member States for comments before submission to the Board. Suggestions contained in the report could not, therefore, be taken into full consideration in the work programme for 1971.

- 10. UNIDO has explored the possibilities of organizing, in the developing countries, training programmes parallel with those in the industrialized countries. In 1970, the first programme of this kind in-plant group training in the field of tropical food processing will be carried out; it will be repeated in 1971.
- 11. On the basis of an evaluation of previous programmes, the curricula of the repeated programmes and the formulation of new programmes have been improved.

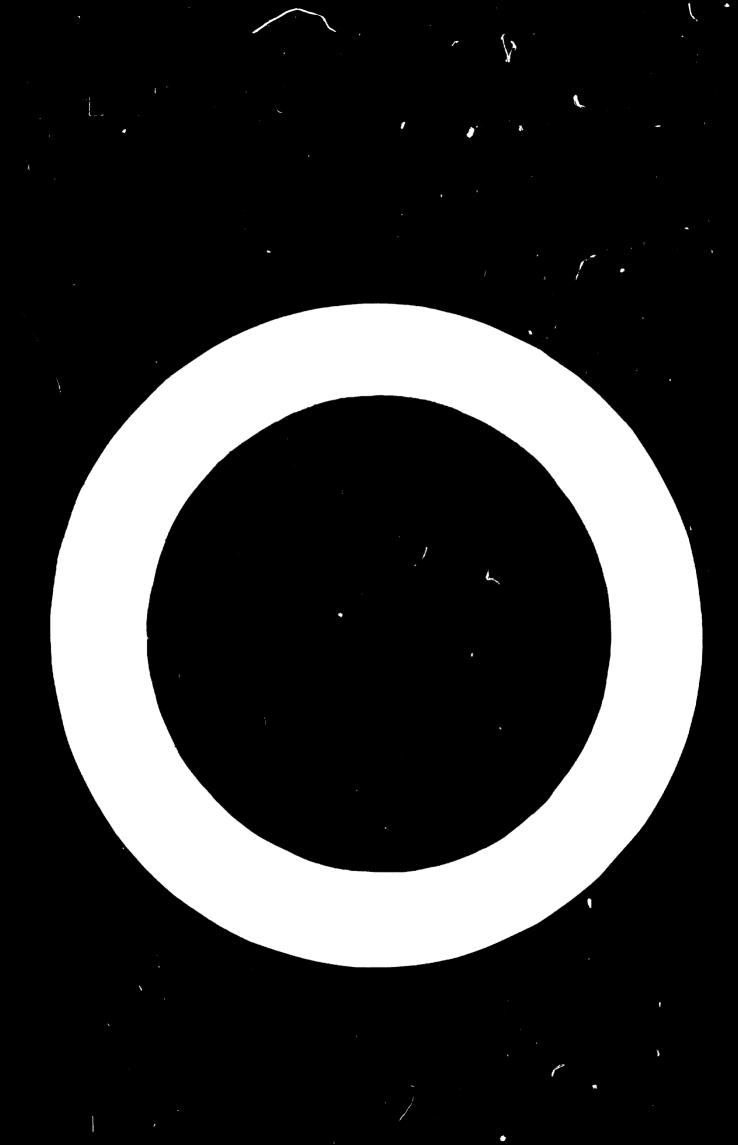
Industrial management and consulting services - 10b

- 12. The objective of UNIDO in the field of industrial management and consulting services is to assist managers of manufacturing industries in the developing countries to analyse, diagnose and solve immediate and long-term problems, as well as to assist in the development of individual factories or whole sectors of industries. In this task, UNIDO co-operates with other United Nations agencies, in particular with ILO.
- 13. As industrialization in a developing country proceeds, the problems of management and the methods used to solve these problems also change. UNIDO is therefore providing assistance to fit the changing conditions.
- 14. One type of assistance consists of organizing industrial management clinics. Such a project usually lasts four to five weeks, during which a small group of UNIDO experts holds discussions with managers and their staff in selected enterprises. During these discussions, factories are analysed, problems diagnosed and solutions proposed.
- 15. Another type of assistance consists in providing experts for consulting services. The participating factories are grouped either by cross-industry sectors or by the same branch of industry. Irrespective of the kind of grouping, the role of UNIDO is to assist such a group in the establishment of its own consulting unit.
- 16. A third type of assistance is the provision of help to consulting services in developing countries, particularly those concerned with organization and management. These projects, financed under UNDP/SF, are designed to

assist consulting services to become more operational and efficient and to assist the national consultants to gain the acceptance of local industrialists.

- 17. The implementation of the above projects does not require establishment of special facilities or buildings, but relies on the use of existing facilities. Studies on the application of relected management techniques in the developing countries are undertaken to support these programmes.
- 18. At the end of 1969, 71 SIS/TA projects and two operational UNDP/SF projects were being carried out. Requests were received from six countries for industrial management clinics, two of which were implemented in 1969.
- 19. In one industrial management clinic, four experts analysed problems in a number of textile factories and offered a diagnosis. Discussions were held with the managers to explore the actions required. Another clinic assisted the management of four electromechanical industries.
- 20. In 1968, UNIDO undertook a study of the possibilities of mobilizing expert resources by the use of a consultant consortium. The matter was further studied in 1969 and various consulting firms and organizations in developing and developed countries were visited. It was found that, for the time being, the interest of the consulting firms was not sufficient to consider this project further. UNIDO also finalized a study on the establishment of a roster of university professors who could be used for short-term field assignments, including participation in industrial management clinics.
- 21. In 1966, an expert group meeting discussed the use of consultants in the developing countries. The discussions resulted in the preparation of a manual on the use of consultants in the developing countries. Further, UNIDO organized in Tokyo in 1969, in co-operation with the Overseas Technical Co-operation Agency (OTCA), a Regional Workshop on the Use of Consultants, in which the experience of the users of consultant services was analysed. From the developing countries, more than 25 users of consultant services participated. Representatives from ECLA, UNDP, the Asian Productivity Organization (APO), and the Asian Development Rank (ADB) participated as observers. A report of the workshop will be published in 1970.

- 22. In 1970 and 1972, the number of short and middle-term field posts, financed under UNDP/TA and SIS, is estimated to increase to about 115. Six to eight industrial management clinics will be conducted in 1970 and ten in 1971. By 1971 about ten UNDP/SF projects will be established.
- 23. In 1970, UNIDO will begin a study of corporate planning and distribution systems, value analysis, cost reduction schemes etc. Questionnaires will be developed and used for this purpose.



A. OPERATIONAL ACTIVITIES

UNDP/SPECIAL FUND - approved projects

Project number

<u>AFRICA</u>

Ghana

GHA-28 Assistance to the Ghana Industrial Holding Corporation

Purpose: To strengthen the Ghana Industrial Holding Corporation at the policy-making level and to co-ordinate management assistance to individual plants. The plan of operation was signed and the project became operational on 10 September, 1969. Experts, including a maintenance engineer and an assistant mill manager, began working in early 1969.

Approved: January 1969 UNDP: \$ 753,600 Duration: 4 years Gov't: \$ 852,000

ASIA AND THE FAR EAST

Pakistan

PAK-48 Centre for the organization and development of the jute industry. Dacca

Purpose: To improve the productivity of jute mills and to diversify the industry through research and new product development. ILO is associated with the project through provision of expert services for training and up-grading of foremen and supervisors. The plan of operation is being prepared.

Approved: January 1969 UNDP: \$ 599,000 Duration: 3 years Gov't: \$ 481,000

EUROPE AND THE MIDDLE FAST

Turkey

TUR-29 In-plant training centre for engineers, Kirikkale

Purpose: In association with ILO and UNESCO, to provide intensive practical pre-employment and up-grading training for engineers in the metalworking industries. Preliminary operations were begun in December 1968, and the plan of operation is being prepared.

Approved: UNDP: \$1,420,300 Gov't: \$3,000,000

UNDP/SPECIAL FUND - approved projects (cont'd)

Table 1

Estimated expenditures for approved UNDP/SF projects, 1969-1971

(in US dollars)

	1969			1970		1971			
	Experts	<u>Fellows</u>	0ther	Experts	<u>Fellows</u>	<u>Other</u>	Experts	Fellows	0ther
GHA-28	55,500	•	1,000	207,200	17,000	70,100	148,900	17,000	39,100
PAK-48	-	•	-	106,600	11,900	57,000	210,000	8,500	54,900
TUR-29	21,800	•	3,000	90,000	20,000	110,000	168,000	40,000	165,000
Total	77,300	•	4,000	409,800	48,900	237,100	526,900	65,500	259,000

UNDP/SPECIAL FUND - projects submitted to UNDP for approval

Project number

EUROPE AND THE MIDDLE EAST

Yugoslavia

YUG-11 Centre for industrial organization and development

Purpose: To assist the centre to provide practical assistance to industrial executives, to up-grade the knowledge of executives and specialists, to undertake research in fields such as marketing and production technology and to assist industrial enterprises to establish and operate their own expert services for development programming and decision-making activities.

INTERREGIONAL

INT-13 Establishment of an international training centre in the Netherlands for the electric and electronic industries

Purpose: To assist in establishing a training centre for the expansion and modernization of electric and electronic industries in developing countries. The centre will organize group in-plant training courses in management and production techniques, other training activities, and will collect and publish training and related materials.

Duration: 3 years Est. UNDP: \$ 275,000 Est. Gov't: \$ 246,000 Host Country: \$ 138,000

INT-14 International textile industry training and development programme, Poland

Purpose: To assist in the establishment of a training centre to organize and conduct group in-plant training courses for textile managers and engineers from developing countries. The training centre will organize other related activities and prepare teaching manuals.

Duration: 3 years Est. UNDP: \$ 176,600
Est. Gov't: \$ 120,000
Host Country: \$ 342,000

UNDP/SPECIAL FUND - projects under preparation

ASIA AND THE FAR EAST

Centre for advisory and consultative services to improve industrial management of industry

INTERREGIONAL

In-plant training programme in plastic industries for developing countries

Training programme in production of railway equipment

Training programme in the cement industry

UNDP/TECHNICAL ASSISTANCE - approved projects

 Project number
 1969 1970 1971 (in US dollars)

AFRICA

United Arab Republic

UAR-68-8
Quality control - certification marking, informative labelling, quality control, training and in-plant standardization

experts
3/18 m/m - 36,000 -

East African Community

EAC-68-10 Industrial unit (OPAS) - EAC secretariat (chief of the unit)

expert 1/26 m/m 3,050 18,947 18,947

THE AMERICAS

Dominican Republic

TOM-68-7

Industrial development - assistance to the Public Enterprises Corporation (CORDE)

- budget programming

expert 1/6 m/m - 12,000 --

UNDP/TECHNICAL ASSISTANCE - approved projects (cont'd)

Project 1969 1970 1971 number (in US dollars) THE AMERICAS (cont'd) Jamaica JAM-69-2 Industrial management - management, service, public works department, maintenance workshops (project started under SIS 68/311) expert 1/10 m/m3,200 16,000 ASIA AND THE FAR EAST China CHA-68-2 Industrial management and training consultation and consultant training (China Productivity and Trade Centre) expert 1/12 m/m24,000 Indonesia INS-68-11 Industrial management - production and production alternatives, assistance to the Ministry of Industry (project started in 1968) expert 1/32 m/m15,400 24,000 24,000 miscellaneous 2,400 Malaysia MAL-68-6 Assistance to MARA - trust council for promotion of indigenous enterprises (management advisory service) expert 1/24 m/m 23,100 24,000 Papua and New Guinea PAP-69-2 Indigenous entrepreneurship - formulation of a long-range policy 1/6 m/m _ expert 12,000

UNDP/TECHNICAL ASSISTANCE - approved projects (cont'd)

Project			<u>1969</u> (in	1970 US dolla	<u>1971</u>
number	ASIA AND THE FAR EAST (cont'd)		(111		,
	Sing	zapore		V	
SIN-68-1	Assistance to the Economic Board* - industrial economic director (OPAS)				
	expert	1/12 m/m	18,000	-	-
	Reg	ional			
AFE-68-11	In-plant training in mecha	anical engineer-	-		
	ing* fellows	12/30 m/m	12,000	-	-
	EUROPE AND THE MIDDLE EAST				
	Is	rael			
ISR-69-3	Industrial management* - processes in apparel and		y		
	fellow	1/3 m/m	2,200	-	-
	<u>Tu</u>	rkey			
TUR-68-27	Cost accounting				•
	fellow	1/12 m/m	-	5,800	-
	INTERREGIONAL				
INT-68-2	In-plant training in electing in Sweden	trical engineer	-		
	fellows	40/160 m/m	27,000	27,000	-
INT-68-3	In-plant training in text Poland	ile industry in			
	fellows	40/200 m/m	20,000	20,000	

UNDP/TECHNICAL ASSISTANCE - approved projects (cont'd)

Project number			<u>1969</u> (ir	<u>1970</u> US dolla	<u>1971</u> ars)
	INTERREGIONAL (cont'd)		•		,
INT-68-9	In-plant training in pulp fellows	and paper 24/72 m/m	16,000	16,000	-
INT-68-12	In-plant training in machining instruments in the USSR*	ne tools and		·	
	fellows	15/75 m/m	15,000	_	_
INT-68-13	In-plant training programme shoe industry in the CSSR*	in the			
	fellows	20/80 m/m	20,000	***	_
INT-68-14	In-plant training in food tindustry in the UK*	echnology			
	fellows	20/80 m/m	40,000	-	-

Table 2
Estimated expenditures for approved UNDP/TA projects, 1969-1971

	1969		1970		1971	
	m/m	US\$	m/m	US\$	m/m	US\$
Experts	14/40	62,750	15/88	166,947	-	42,947
Fellows	140/506	152,200	52/216	68,800	-	-
Other	-	2,400	-	-	-	-
Total		217,350		235,747		42,947

UNDP/TECHNICAL ASSISTANCE - forecast of new projects for 1971

	Experts m/m	Fellows m/m	Other US\$
AFRICA			
Assistance in the field of industrial management and consulting services	10/60	20/120	-
THE AMERICAS			
Assistance in the field of industrial management and consulting services	30/180	10/60	-
ASIA AND THE FAR EAST			
Assistance in the field of industrial management and consulting services	30/180	20/120	-
EUROPE AND THE MIDDLE EAST			•
Assistance in the field of industrial management and consulting services	15/90	60/360	-
INTERREGI ONAL			
In-plant training programmes in selected industrial branches	-	200/600	-
UNIDO REGULAR PROGRAMME - approved projects			
Project number		<u>1969</u> (in US d	<u>1970</u> Hollars)
<u>AFRICA</u>			
Gambia			
RP-10-12 <u>Industrial management</u> * - training fellow 1/4	; m/m	2,600	-

UNIDO REGULAR PROGRAMME - approved projects (cont'd)

Project number	AFRICA (cont'd)		<u>1969</u> (in US	<u>1970</u> dollars)
		Ghana		
RP-10-2	Industrial management industrial management level technical pers	at = specific		
	fellows	2/12 m/m	-	6,800
P		Guinea		·
RP-10-14	Industrial managemen	<u>ıt</u> *		
	fellows	2/24 m/m	11,600	-
		Libya		
RP-10-2	Industrial managemen			
	fellow	1/6 m/m	-	3,400
		Mali		
RP-10-22	Industrial managemen	<u>t</u> *		
	fellow	1/6 m/m	3,400	-
		Nigeria		
RP-10-2	Industrial training - in fermentation techn	- in-plant training nology		
	expert	1/6 m/m	-	11,550
		<u>Sudan</u>		
RP-10-34	Industrial training*			
	fellows	5/24 m/m	13,600	-
	<u>Unite</u>	d Arab Republic		
RP-10-6	Industrial management	- training		
	fellows	4/20 m/m	-	12,000

UNIDO REGULAR PROGRAMME - approved projects (cont'd)

Project number			<u>1969</u> (in US	<u>1970</u> dollars)
	AFRICA (cont'd)			
	United	Republic of Tanzania		
RP-10-3	Industrial management management subjects level personnel of r			
	fellows	3/15 m/m	-	9,000
		Zambia		
RP-10-2	Industrial management industrial management and high-level techn			
	fellows	2/12 m/m	-	6,800
	THE AMERICAS			
		Chile		
RP-10-89		- in-plant training		
	expert fellows	1/6 m/m 4/11 m/m	11,000 6,800	-
		Peru		
RP-10-104	Industrial training* in-plant group train			
	fellows	2/14 m/m	7,600	-
	ASIA AND THE FAR EAST			
		India		
RP-10-55	Industrial engineeri	ng*		
	adviser fellow	1/12 m/m 1/6 m/m	23,100 3,400	-
		Indonesia		
RP-10-3	Industrial managemen	<u>t</u>		
	fellows	5/30 m/m	-	17,000

UNIDO RECULAR PROGRAMME - approved projects (cont'd)

Project number	ASIA AND THE FAR EAST (cont'd)		<u>1969</u> (in US	<u>1970</u> dolla rs)
RP-10-140	·	Iran n-plant training		
	expert training	1/6 m/m 3/18 m/m	9,800 10,200	-
	Sin	gapore		
RP-10-76	Industrial management* -	accounting		
	expert	1/6 m/m	11,000	-
	Tha	iland		
RP-10-143	Industrial training*			
	fellow	1/6 m/m	3,400	
	EUROPE AND THE MIDDLE EAST	,,	3,400	-
	Sy	ria		
RP-10-132	Industrial management*			
	fellow	1/6 m/m	3,400	-
	Yugos	slavia		
RP-10-3	Industrial management - or management of industrial en	ganization and nterprises		
	fellows	2/4 m/m	•	2,000
RP-10- 124	Industrial management* - or industrial enterprises	rganization of		·
	fellows	3/6 m/m	3, 206	-
	INTERREGIONAL			
INT-10-151	In-plant training programme industries in the Ukrainian	in iron and ste	el	
	fellows miscellaneous	42/210 m/m	121,800 1,200	

UNIDO RECULAR PROGRAMME - approved projects (cont'd)

Table 3

Estimated expenditures for approved RP projects, 1969-1970

	19	969	19	970
	m/m	US\$	m/m	US\$
Experts	4/30	54,900	1/6	11,550
Fellows	65/314	191,006	19/99	57,000
Other	-	1,200	-	-
Total		247,106		68,550

UNIDO REGULAR PROGRAMME - forecast of new projects for 1971

	Experts m/m	Fellows m/m
AFRICA		
Industrial management techniques	-	2/12
Training in industrial management	-	2/12
THE AMERICAS		
Training in industrial management	-	2/12
Management techniques	-	1/6
ASIA AND THE FAR EAST		
Modern techniques of industrial management	-	2/12
Promotion of industrial management techniques	1/6	_
EUROPE AND THE MIDDLE EAST		
Management techniques	-	2/9
Organization and management of enterprises	-	1/6
Industrial organization and management		1/3

Project number			<u>1969</u> (in US	<u>1970</u> dollars)
	AFRICA			,
	G	hana		
66 - 2 GH A- 2	Assistance to the Fibre Be Corporation, Kumasi* - mar nance, cost accounting wor	18 Comont		
	$ extbf{experts}$ $ extbf{fellow}$	3/14 m/m 1/3 m/m	17,400 3,600	-
67-163 GHA-5	Assistance to Chana Indust Corporation - footwear facteather and shoe design, m food industry, marketing d	tory, investments,		
	$\mathbf{experts}$	8/142 m/m	90,500	123,500
40	Nigo	eria		
68-338 NIR-10	Assistance to the Midwest (at Ugheli (OPAS) - general	Hass Industry management		
	expert	1/12 m/m	-	16,000
d== d=	Sud			
67–60 SUD–3	Improvement of the efficien sector industries* - consultation and control of publication	tonto in .		
	${ t expert}$	1/2 m/m	5,000	-
(0, 00-	Tuni			
68-297 TUN-10	Assistance to the Ateliers I Sahel* - industrial cost acc	Mécaniques du Counting		
	expert	1/4 m/m	9,000	-
	United Arab	Republic		
68-382 UAR-21	Quality control development - industrial management	programme*		
	expert	1/6 m/m	11,000	-

Project number			<u>1969</u> (in US de	<u>1970</u> ollars)
	THE AMERICAS			
		Barbados		
69-515 BAR-2	Assistance to the Bart Board - industrial man	pados Development pagement 1/9 m/m	16,750	2,000
		Brazil		
67-238 BRA-8	Assistance to Petrobra expert	s in financial planning	14,000	10,000
68-227 B RA-4	Assistance to the Comm Development - management	nission for Industrial ent adviser 1/12 m/m	19,000	9,000
	expert	1/12 m/m	1),000	,,,
		Ecuador		
68-376 ECU-7	Assistance to the Cen (CENDES) - industrial tion and production)	tro de Desarrollo management (organiza-		
	experts	2/12 m/m	-	22,000
		Jamaica		
68-311 J AM-4	Management, service, maintenance workshops ment	public works department - industrial manage-		
	expert	1/8 m/m	15,800	-
69 -51 7 J AM- 5	Assistance to Jamaica industrial management			
	expert	1/6 m/m	7,000	

Project number			<u>1969</u> (in Us	<u>1970</u> 5 dollars)
	ASIA AND THE FAR EAST		·	=======================================
67-111	•	<u>China</u>		
CHA-3	Assistance to the Chir Trade Centre in the fi executive development	010 05		
	consulting firm expert	1/2 m/m	40,000 1,700	-
60 557	_	India		
6 9- 556 IND-11/12	Organization and manage schemes and seminars or techniques	ement quality control quality control		
	experts	2/8 m/m		16,000
	<u>I</u>	ndonesia		
67 - 176 I NS- 5	Metalworking industry* control, cost accounting budget	 production, technic product costing an 	al d	
(2.100	experts	3/33 m/m	66,000	-
67-177 INS-6	Assistance to three paper management cost accounts budget	er mills in Java - ant, product cost and		
	experts	2/21 m/m	17,000	24,000
		Iran		
69 -524 IR A- 22	Arak machine building pl mission* (industrial manding and product costing)	ant - exploratory agement, cost account	_	
	${ t experts}$	2/2 m/m	8,000	
69 - 52 7 IR A-1 9	Exploratory mission to in long-term plans to be und to designing a management decision-making system in Economy	tertaken with a view	3,000	-
	experts	2/4 m/m	8,800	6,000

Project number			<u>1969</u> (in US de	<u>1970</u> ollars)
	ASIA AND THE FAR EAST (cont'd)			
	Pakis	tan		
68-444 P A K-4	Industrial management advisors solving mission in cotton to industrial management clinorganization, costing, costing and distribution)	extile industry nic* (industrial		
	experts	4/6 m/m	15,900	-
69-473 PAK-7	Assistance to the East Pakis Development Corporation (EP to the Khulna Newsprint Mill yard (production planning as reduction, product costing, logistics, system design)	IDC) - assistance l and Khulna Ship- nd control, cost		
	experts	6/34 m/m	-	82,000
69-499 PAK-5	Survey to formulate recomme ordination and efficient ut steel, iron and engineering Pakistan - metal forming, manufacture	ilization of the industries in		
	experts	5/17 m/m	-	35,100
	Singa	pore		
68-404 SIN-11	Assistance in management ac Economic Development Board		2 000	9,000
	expert	1/6 m/m	2,000	7,000
68-405 SIN-12	Assistance in management ac light industries services	counting to the		
	consulting firm		3,000	8,000

Project number	EUROPE AND THE		<u>1969</u> (in US	<u>1970</u> dollars)
	MIDDLE EAST	oslavia		
68–339 YUG–3	Establishment of a market product forecasting progra of industries - production system analysis	research and		
68-340 YUG-4	Establishment and manageme based production planning at the shipyards "3 May" a		2,000	21,000
(0, 2, 15	tion planning and systems a	analyses 1/6 in/m		11 ,000
68-342 YUG-6	Assistance to "21 May" automanufacturing plant - industrials handling and proand control)			·
68-343	Assistance to the WIA Only	1/6 m/m	~	11,000
YUG-13	Assistance to the "14 Octobe factory - value analysis and experts	er" mechanical d product costing 2/6 m/m		
68-347 YUG-11	Assistance to furniture indumanagement and product costi		2,000	10,400
68-431 YUG-5	Establishment and management based production planning an at "Energoinvest" Sansieur		-	21,200
	at "Energoinvest", Sarajevo Zenica	and "Hasan Brkic",		
68-440 YUG-15	Industrial management consult problem solving mission in el industry - industrial managem (system analysis and producti industrial organization and omarketing)	lectro-mechanical ment clinic*	2,000	9,000
	experts	4/4 m/ m	10,000	-

Table 4

Estimated expenditures for SIS projects, 1969-1970

	1969		19	970
	m/m	US\$	m/m	<u>us</u> \$
Experts	40/180	340,850	38/242	438,200
Fellows	1/6	3,600	-	
Other	***	43,000	-	8,000
Tota:	1	387,450		446,200

B. SUPPORTING ACTIVITIES

24. The supporting activities for Groups 10a and 10b are classified under the following projects:

Industrial training - 10a

In-plant group training programmes	
Continuing sectoral programmes in industrialized countries	
New sectoral programmes in industrialized countries	10a.01
Sectoral programmes in developing countries	10a.02
Sectoral programmes in industrialized countries financed on a long-term basis	10a.03
Sectoral upgrading programme in industrialized countries	10a.04
Middle-level programmes in industrialized countries on oross-industry problems	10a.05
Maintenance programmes in Italy	10a.06
In-plant group training in consultancy	10a.07
	10a.08
Individual fellowship programme Fellowships	
•	10a.09
Other activities	
Studies on industrial training	10
Promotion and follow-up activities	10a.10
Industrial training organizations	10a.11
Industrial management and consulting services - 10b	10a.12
Consulting services	
Industrial management clinics	10ъ.01
Studies on particular management	106.02
- 0	
Mobilization of expert resources	106.03
Programme in achievement training for indus-	106.04
	10ъ.05

25. As was mentioned in the prefatory remarks to the section on Supporting Activities in Part One (ID/B/64), the objective of the supporting activities is to establish a two-way flow of information and experience between the supporting activities at headquarters and the field. A great deal of material on which headquarters' studies and meetings are based is derived from information received from the field. In turn, the studies and meetings are intended to improve the substantive support given by headquarters to the field operations. In many cases these results are fed directly to the field in the form of reports. In all cases, they constitute an accumulation of knowledge and experience on which both headquarters and field staff are able to draw in response to the needs arising in the technical assistance operations.

INDUSTRIAL TRAINING - 10a

Continuing sectoral programmes in industrialized countries (10a.01)

26. In 1969, a number of programmes were carried out which will continue in 1970 and 1971, and it is expected that two new programmes will start in 1970. Participants in these programmes are graduate engineers from developing countries with several years of experience.

Project component	Training sector	Country	Started	Number of participants	Duration (months)
10a.01.01	Diesel engineering	CSSR	1968 ^{2/}	20	3
10a.01.02	Shoe industry	CSSR	1969	20	3
10a.01.03	Cement industry	Denmark	1968 <u>3</u> /	20	3
10a.01.04	Electrical engineering	Sweden	1966	20	4
10a.01.05	Pulp and paper	Sweden	1968	12	3
10a.01.06	Mechanical industry	Switzerland	1970	15	3 1
10a.01.07	Pharmaceutical industry	Switzerland	19 7 0	15	3 1 2

²/ Not carried out in 1969, scheduled for 1970 and 1971.

^{3/} Not carried out in 1969 and 1970, scheduled for 1971.

Project component	Training sector	Country	Started	Number of participants	Duration
10a.01.08	Iron and steel	USSR	1965	•	(months)
10a.01.09	Metalworking		1905	60	5
	industry	USSR	1969	20	
10a.01.10	Food processing	UK			4
10a.01.11	Textile industry	Poland	1969 <u>4</u> / 1967 5 /	14	3
	y	· Orang	19672	20	5
1969 1970 1971		Staff (in m/m) 7 9		Pri	ority A

New sectoral programmes in industrialized countries (10a.02)

27. The following sectoral programmes will be carried out for the first time

Project component	Training sector	Country	Number of participants	Duration
10a.02.01	Plastic processing	Federal Republic of Germany	20	(months)
10a.02.02	Automotive industry	France		
10a.02.03	Foundry technology	Sweden	20	5
10a.02.04	Fertilizer industry		20	3
·	of the line of the	USSR	12	4
1969		Staff (in m/m)	Pr	iority A

1970		2		
1971		4		

In 1970 and 1971 this programme will be carried out in India (see 10a.03.01) 4/ 5/

For 1970 and 1971 see 10a.04.02.

Sectoral programmes in developing countries (10a.03)

28. The first upgrading programme in a developing country will be carried out in 1970 in India and will be repeated in 1971. UNIDO will continue its efforts to find, in relatively advanced developing countries, training facilities available to other developing countries.

Project component	Training sector	Country	Number of participants	Duration (months)
10a.03.01	Food processing	India	20	3
			<u> </u>	riority A
		Staff (in m/m)		
1969		1		
1970		2		
1971		2		

Sectoral programmes in industrialized countries financed on a long-term basis (10a.04)

29. The following two projects, for which offers of training facilities for three years have been received from the respective Governments, are scheduled for 1970 to 1972. Requests for funds for fellowships and international staff for the same period have been submitted to UNDP for financing under UNDP/SF. It is expected that similar arrangements, for which UNIDO is in negotiation with several host governments, will be made for other programmes in 1970 and 1971. Requests for SF financing will be submitted in due time to UNDP.

Project component	Training sector	Country	Number of participants	Duration (months)
10a.04.01	Electric and elec- tronic industries	Netherlands	18	6
10a.04.02	Textile industry 6/	Poland	20	5

From 1967 to 1969, this programme was carried out as an in-plant group training programme, financed on a yearly basis (see 10a.01).

Pri	ori	tv	A

1060	Staff (in m/m)
1969	1
1970	4
1971	4

Sectoral upgrading programme in industrialized countries (10a.05)

30. This programme, organized in 1968 and 1969 to prepare engineers employed at middle-level positions in factories in developing countries to assume higher positions, will be continued in 1970 and 1971.

Project component	Training sector Mechanical industry	<u>Country</u> Japan	Number of participants	Duration (months)
		ompan	147/	2 1
		Staff	<u>P1</u>	riority A
1969		(in m/m)		
1970		1		
1971		2		
->1-		2		

Middle-level programmes in industrialized countries on cross-industry problems (10a.06)

31. The following programmes, a number of which could start in 1970, subject to availability of funds, are scheduled for 1971:

In 1969, there were 12 participants.

Project component	Training sector	Country	Number of participants	Duration (months)
10a.06.01	System analysis: practical applica- tion of decision- making system	Federal Republic of Germany	20	2
10a.06.02	Financial management and control	Federal Republic of Germany	20	3
10 a. 06.03	Maintenance systems (railway equipment)	Federal Republic of Germany	20	3
10a.06.04	Organization and management of main-tenance systems	Finland	20	3
10a.06.05	Organization and management of main-tenance systems	Sweden	20	3
10a.06.06	Organization and management of stan-dardization systems in manufacturing industries	USSR	25	4
			<u>P:</u>	riority A
		Staff (in m/m)		
1969		1		
1970		4	4	
1971		8		

Maintenance programmes in Italy (10a.07)

32. It is hoped that from 1970 on, several in-plant training programmes on maintenance will be undertaken in selected industries in Italy, to be financed from the contribution of the Government of Italy. Discussions are proceeding with the Italian authorities on the establishment of these programmes.

	Staff (in m/m)	Priority A
1969	1	
1970	3	
1971	4	

In-plant group training in consultancy (10a.08)

33. Under this project, consultants from developing countries will be brought to the industrialized countries, where they will work with staff members of large consulting firms on direct consulting assignments in industry. The participants will also study the organization, financing, marketing methods etc. used by the consulting firms in the developed countries. In 1971, one such in-plant group training course will be carried out.

Project component	Training sector	Country	Number of participants	Duration
10a.08.01	Industrial consulting	Federal Republic of Germany	20	(months)
1969 1970 1971		Staff (in m/m) - 2 2	Pr	iority A

Fellowships (10a.09)

34. The number of established fellowship posts under UNDP/TA, UNDP/SF, Regular Programme and SIS as of 31 December 1968 was 328, of which 279 posts were filled. By 30 September 1969, the number of established posts increased to 444, for which 258 nominations had been received.

Staff (in m/m) 1969 6 1970 12 1971	Consultants (US\$) - 1,000	Priority A
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Studies on industrial training (10a.10)

Implementation of General Assembly resolution 2259 (XXII) (10a.10.01)

35. A report on training of national technical personnel for the accelerated industrialization of developing countries, as requested in General Assembly resolution 2259 (XXII) of 3 November 1967, was prepared in 1969 and submitted to the General Assembly as document A/7595. The report consists of a summary of the main observations submitted by governments on the report of the Secretary-General on the same subject (E/3901/Rev.1 and Add.1 and 2) and a description of the activities of UNIDO in the field of training for industrialization.

Priority A

	Staff (in m/m)
1969	2
1970	-
1971	_

Implementation of the Industrial Development Board resolution 8 (II) (10a.10.02)

36. An outside consultant prepared in 1969, in consultation with ECAPE, UNESOB, UNDP, UNITAR, ILO and UNESCO, adraft report on a long-term programme for industrial training. As requested in paragraph 6 of resolution 8 (II) of the Industrial Development Board, and on the basis of the findings of the consultant, UNIDO will prepare an outline for a detailed long-term training programme. The outline will be circulated to the respective governments prior to its submission to the Board for consideration.

Priority A

	Staff (in m/m)	Consultants (US\$)
1969	2	5,828
1970	4	-
1971	1	-

Report on industrial training - International Education Year 1970 (10a.10.03)

- 37. In resolution 2306 (XXII) of 13 December 1967, the General Assembly provisionally designated the year 1970 as an International Education Year. In November 1968, the General Conference of UNESCO adopted two resolutions endorsing the decision, and the General Assembly in resolution 2412 (XXIII) of 17 December 1968 confirmed 1970 as International Education Year and also endorsed the programme of action outlined in the resolutions of UNESCO.
- 38. UNIDO participated in the inter-agency meeting on the preparation of the International Education Year. As its contribution, UNIDO prepared a study on its experience in the field of industrial training, particularly in-plant group training programmes for engineers.

		•	Priority A
	Staff (in m/m)	Consultants (US\$)	
196 9	1	3,083	
197 0	1	_	
1971	•	-	

Training manuals (10a.10.04)

39. A series of studies for engineers in the textile industry was prepared in 1968 (ID/B/20/Rev.1, para. 166) and will be published in 1970. Owing to lack of resources, the studies for engineers in diesel engineering and in the iron and steel industry, which had been scheduled for preparation in 1969 (ID/B/44, para. 268), were postponed to 1970.

			Priority A
	Staff (in m/m)	Consultants (US\$)	
1969	•	-	
19 70	2	5,000	
1971	2	-	

Promotion and follow-up activities (10a.11)

40. UNIDO maintains regular contact with former participants of in-plant group training programmes and their employers and with the industries in which the training programmes were carried out so as to assess the value of training after participants have returned to their home countries. UNIDO is also active in promoting and assisting in the establishment of training schemes for industries in developing countries, through contacts with former participants and other interested parties.

Priority A

,	Staff (in m/m)
1969 ^a /	-
1970-	
1971	7

a/ Not tabulated separately.

Industrial training organizations (10a.12)

41. As a result of close consultation between UNIDO and ILO, a follow-up campaign will be undertaken to promote the establishment of industrial training organizations in developing countries.

Priority A

,	Staff (in m/m)
1969 a /	-
1970	4
1971	6

a/ Not tabulated separately.

INDUSTRIAL MANAGEMENT AND CONSULTING SERVICES - 10b

Consulting services (10b.01)

Meetings on the use and development of consulting services in developing countries (10b.01.01)

42. An expert group meeting was convened in 1966 in New York to discuss industrial consultancy in the developing countries. Another meeting was held in 1969 in Tokyo, Japan, with participants from Asian countries, to discuss the experience of users of consultant services. This series of activities on the use of consultancy will be completed in 1971, when an expert group meeting will be held in Vienna to discuss the problems, ways and means of organizing national consultancy services in the developing countries. A final report is to be published in 1972.

			Priority A	
	Staff (in m/m)	Meetings (US\$)	Consultants (US\$)	
1969	5	13,200	6,800	
1970	4	-	-	
1971	3	15,000	-	

Industrial management clinics (10b.02)

43. In these clinics, UNIDO uses primarily outside experts and also arranges instruction and selection seminars to develop future team leaders.

Instruction and training of team leaders for industrial management clinics (10b.02.01)

			Priority A
	Staff (in m/m)	Meetings (US\$)	
1969	1	dina	
1970	6	8,000	· ·
1971	6	_	

Studies on particular management techniques in the developing countries (10b.03)

44. Studies will be made on particular organization and management aspects in the developing countries in order to adjust assistance to the rapidly changing conditions in industry. The studies will be undertaken as a joint effort of UNIDO staff, field experts and managers of selected plants in developing countries. Questionnaires will be used.

Project component		Staff (in m/m)			<u>Priority</u>	
		1969	1970	<u> 1971</u>		
10b.03.01	Introduction of corporate planning systems, particularly in export-oriented industries	-	1	2	A	
106.03.02	Organization and management of distribution channels	~	1	2	A	
106.03.03	Organization and application of value analysis and cost reduction schemes in selected factories		1	2	A	
106.03.04	Organization and management of applied research and product development schemes within a large company or a group of firm	- s		2	A	
106.03.05	Organization and management of material handling systems in selected groups of industries	-	•	2	A	
106.03.06	Use of systems analysis and management decision-making techniques in selected industrie	-	-	2	A	

Mobilization of expert resources (10b.04)

Study to ascertain readiness of consulting firms to participate in a consulting consortium (10b.04.01)

			Priority A
	Staff (<u>in m/m</u>)	Consultants (US\$)	
1969	1	1,925	
1970	-	-	
1971	-	-	

^{8/} Document ID/B/26, para. 166.



Establishment of a roster of university professors (10b.04.02)

Priority A

	Staff (in m/m)	Consultants (US\$)
1969	1	2,000
1970	1	-
1971	2	-

Programme in achievement training for industrial development (10b.05)

45. In 1969, a feasibility study was made to identify a number of projects and to plan the organization and financing of those to be initiated in the period 1970 to 1972. Each project will consist of three components: (a) the design of training programmes in achievement motivation for industrial development; (b) the training of instructors to carry out the projects; and (c) research activities to evaluate the projects. The projects in 1970 and 1971 will be financed from SIS, from consultant components of a number of UNDP/SF projects and from outside resources.

Priority A

	Staff (in m/m)	Consultants (US\$)
1969	1	10,000 <u>a</u> /
1970	2	-
1971	2	

In addition, The Behavioral Science Center, Sterling Institute, Cambridge, Mass., has subsidized the project to the amount of \$5,000.

^{9/} Document ID/B/26, para. 167.

PRINTED PUBLICATIONS

			Languages	Cost (US\$)
Publ:	ications issu	ed in 1969		
	ID/3	Manual on the use of consultants in developing countries	F'	
		Training for industry series		
	ID/SER.D/1	Training of economic administrators for industrial development	EFS	
	ID/SER.D/2	Estimation of managerial and tech- nical personnel requirements in selected industries	F S	
				11,266
1970	publications	programme		
	ID/SER.D/3	Training for industry series The Lodz textile seminars No. 1 - 8 (textile fibres, spinning, knitting, weaving and associated processes, non-conventional methods of fabric production, textile finishing, testing and quality control, plant and power engineering)	e f s	
				15,900

Note: In the computation of the printing costs, a standard formula was applied based on averaging the cost of printing inside UNIDO and by an outside firm. The standard formula is used to provide for comparability of the cost of printing.



Table 5

Expenditures for supporting activities in 1969^a/

Project components		UNIDO Reg	ula r Budget		UNDP/TA ^{b/}	U NID O General <u>b</u> / Trust Fund	Total 🕏	
	(1) Staff	(2) Meetings	(3) Consul- tants	(4) Publica- tions	(5) us t	(6) us t	(7) us s	
	<u> </u>	<u> </u>	<u>us‡</u>	US\$	039		<u> </u>	
10a.01 - 10a.09	18	-	-				•	
10a.10-01	2	•	-	ł			•	
10a.10-02	2	•	5,828				5,828	
10a.10-03	1	•	3,083				3,083	
Subtotal	23	•	8,911				8,911	
106.01-01	5	13,200	6,800				20,000	
106.02-01	1	•	•				•	
106.04-01	1	•	1,925				1,925	
106.04-02	1	•	2,000				2,000	
106.05-01	1	•	10,000				10,000	
Subtotal	9	13,200	20,725				33,925	
Total	32	13,200	29,636	11,266			54,102	

Expenditures have been calculated on the basis of actual expenditures up to 30 September 1969, projected to the end of the year.

b/ No figures have been given as expenditures for in-plant training programmes are quoted under Operational Activities.

The totals in column 7 do not include the cost of publications. Thus the total of the items in this column does not correspond to the last line of the column.

Table 6
Estimated expenditures for supporting activities in 1970

Project components		UNIDO Reg	ular Budget		UNDP/TA ^{a/}	UNIDO General ^{a/} Trust Fund	Total <u>b</u> /
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Staff	Mee tings	Consul- tants	Publi c a- tions			
	<u> </u>	us	US\$	<u> </u>	US \$	<u> </u>	<u>US</u>
Priority A							
10a.01 - 10a.08	28	•	-				•
1 0a.09	12	-	1,000				1,000
10a.10 - 02	4	•	-				•
1 0a.10- 03	1	•	•				•
10a.10 - 04	?	-	5,000				5,000
10a.12	4	-	•				-
Subtotal	51	•	6,000				6,000
105.01-01	4	-	-				•
10b.02 - 01	6	8,000	_				8,000
10b.03 - 01	1	•	-				-
10b.03 - 02	1	•	•				-
10b.03 - 03	1	•	-				-
10b.04 - 02	1	•	-				-
10b.05 - 01	2	-	-				-
Subtotal	16	8,000	-				8,000
lotal	67	8,000	6,000	15,900			29,900

No figures have been given as expenditures for in-plant training programmes are quoted under Operational Activities.

 $[\]underline{b}$ / The totals in column 7 do not include the cost of publications. Thus the total of the items in this column does not correspond to the last line of the column.

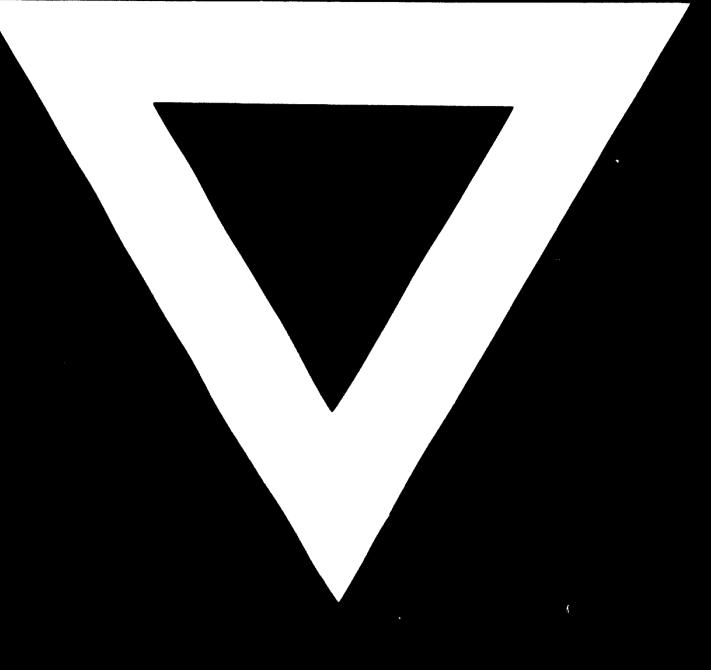
Table 7

Estimated expenditures for supporting activities in 1971

Project components		UNIDO Regui	lar Budget		UNDP/TA ^{a/}	UNIDO General ^{a/} Trust Fund	Total <u>b</u> /
	(1) Staff	(2) Meetings	(3) Consul- tants	(4) Publ ic a- tions	(5)	(6)	(7)
	#/#	<u>us</u>	US	<u> </u>	U\$ \$	US\$	US
Priority A							
10a.01 - 1 0a.09	47	-	•				-
10a.10 - 02	1	•	•				•
10a.10 - 04	2	•	•				•
10a.11	7	•	•				•
10a.12	6	•	-				
Subtotal	63		•				-
10 6.01 - 01	3	15,000	-				15 ,000
10b.02- 01	6	•	•				•
106.03-01	2	-	•				•
106.03-02	2	-	•				-
10b.03 - 03	2	•	•				•
10b.03-04	2	-	-				•
10b.03 - 05	2	•	-				-
106.03-06	2	•	-				-
10b.04-02	2	-	•			ļ	-
10b.05 - 01	2	•	-				-
Subtotal	25	15,000					15,000
Total	88	15,000	•	-		I	15,000

a/ No figures have been given as expenditures for in-plant training programmes are quoted under Operational Activities.

b/ The totals in column 7 do not include the cost of publications. Thus the total of the items in this column does not correspond to the last line of the column.



. 4. 74