



**TOGETHER**  
*for a sustainable future*

## OCCASION

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



**TOGETHER**  
*for a sustainable future*

## DISCLAIMER

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

## FAIR USE POLICY

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

## CONTACT

Please contact [publications@unido.org](mailto:publications@unido.org) for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at [www.unido.org](http://www.unido.org)

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

07982

UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

Distr.  
LIMITED

UNIDO/ICIS.63  
8 April 1978  
ENGLISH

---

**INTERNATIONAL CENTRE FOR INDUSTRIAL STUDIES  
TECHNOLOGY GROUP**

**WORK PROGRAMME  
FOR 1978/79**

## INTRODUCTION

This document provides a detailed account of the Programme of Work of the Technology Group (the Development and Transfer of Technology Section and the Industrial Information Section) for the biennium 1978/1979. This Programme includes activities to be undertaken by the Group, over and above the staff work of its members, from the Regular Budget (RB), the United Nations Industrial Development Fund (UNIDF), and the UNDP resources. The Regular Budget of UNIDO as a whole for 1978/1979 has been approved by the General Assembly and the programme outlined here under the Regular Budget represents the quantum of resources which the Group hopes to be able to utilize out of the allocations approved. The activities under the UNIDF include those which have been already approved as well as those for which proposals have to be submitted to secure funds; they have been formulated in keeping in mind that roughly 10 percent of the resources of the UNIDF may be devoted to activities in the field of development and transfer of technology. Estimates of resources anticipated from the UNDP are based on specific projects under discussion or implementation.

Taken together, the Programme involves over the biennium, an estimated expenditure of roughly \$0.5 million from the Regular Budget, \$2.09 million from the UNIDF, and \$0.08 million from the UNDP resources. It differs from the earlier work programme not only in regard to the magnitude of resources that will be channelled into it, but also in that it is considerably more expanded in coverage and depth. Besides activities under the co-operative programme of action on appropriate industrial technology and the Industrial and Technological Information Bank (INTIB), it includes projects, inter alia, in the field of technology plans and policies, co-operation among developing countries, energy, industrial and technological information and technological advisory services. It takes into account the relevant mandates of UNIDO including resolution ID/B/Res. 47 (XI) on international co-operation in transfer of technology. Several activities in it have been so designed as to make contributions to forthcoming international conferences, in particular the United Nations Conference on Science and Technology for Development, the United Nations Conference on Technical Co-operation among Developing Countries and UNIDO III.

The Programme, for the first time, provides a vertical integration of the work of UNIDO in the field of development and transfer of technology. It combines the elements of research, the formulation of new concepts and guidelines, meetings, the promotion of technical assistance, and the conduct of pilot activities to be followed up by other units in UNIDO. It also aims at implementing some aspects of the recommendations of the Consultation meetings as relate to technology and information.

Evidently this Programme is much bigger than what the Technology Group, as at present constituted, can handle and aims at a level of resources higher than what has so far been available to it. Consequently, it will, where necessary, be implemented across the board in UNIDO as far as the time and resources of other units permit. Altogether the Programme seeks to give technology the role that it deserves in international action for the accelerated industrialisation of developing countries.



G.S. Gouri  
Deputy Director  
Officer-in-Charge of the Technology  
Group

Key to 1978 work schedule

Meetings

1. Draft provisional annotated agenda and budget prepared.
2. Invitations sent to participants.
3. Special Service Agreements prepared.
4. Papers distributed.
5. Meeting held.
6. Final report distributed.

Studies

11. Draft detailed annotated outline prepared.
12. Special Service Agreements prepared.
13. First draft report submitted.
14. Final report submitted.
15. Report distributed.

WORK PROGRAMME OF THE TECHNOLOGY GROUP (\$'000)

Project No.	Title	1978		1979		TOTAL	UNIDF	TOTAL	REMARKS
		RB	UNIDF	TOTAL	RB				
TECH 1	Technology Plans and Policies	22*	95	162**	10	130	190***	352	* including meeting supls (2) ** including anticipated UNDP inputs (45) *** including anticipated UNDP inputs (50)
TECH 2	Development and strengthening of indigenous technological capabilities	14	54	63*	25	41	66	149	* including anticipated UNDP inputs (15)
TECH 3	Identification and use of indigenous technologies in developing countries	29	70	99	25	150	175	274	
TECH 4	Appropriate Industrial technology	50	379 (479)	424* (554)	65	355	420	874 (974)	* including UNDP inputs (25)
TECH 5	Selection and acquisition of technology	47	65	112	25	45	70	182	
TECH 6	Technological co-operation between developed and developing countries in small industry	-	25	25	-	20	20	45	
TECH 7	Promotion of technological co-operation among developing countries	5	104	109	-	108	108	217	
TECH 8	UNCTAD - preparation of documentation	20	-	20	15	-	15	35	
TECH 9	Energy	5	184	189	-	50	50	239	
TECH 10	Information source management	36	86	122	23	100	123	245	

Project No.	Title	1976		1979		TOTAL	UNID*	TOTAL	TOTAL 78/79	REMARKS
		RB	UNID*	TOTAL	RB					
TECH 11	Information material management	17	10	27	-	10	10	37		
TECH 12	Information analysis and processing	40	10	50	-	10	10	60		
TECH 13	Information user linkages	17	-	17	-	-	-	17		
TECH 14	Information systems networking	37	55	92	-	60	60	152		
TECH 15	INTEH extension and evaluation	-	-	-	30*	80	110	110		*including meeting funds (10)
TECH 16	Technological advisory service	-	100	100	-	-	-	-		extrabudgetary funds
	<b>TOTAL</b>	<b>330*</b>	<b>1237 (133*)</b>	<b>1661** (1761)</b>	<b>218***</b>	<b>1159</b>	<b>1427***</b>	<b>3038 (3138)</b>		* including meeting funds (2) ** including anticipated UNDP inputs (65) *** including meeting funds (10) **** including anticipated UNDP inputs (50)



**Programme Component:** Development and Transfer of Technology Section

**Project No.:** TECH-1

**Title:** TECHNOLOGY PLANS AND POLICIES

**Project Officers:** K. Venkataraman, H. A. Janiszewski, E. Aguilar, W.H. Tanaka

**Objective:** To stimulate action by developing countries at the national level for the preparation of technology plans and policies both by assisting them, on request, to make an in-depth examination of the possibilities of their adopting technology plans and policies with reference to their specific requirements and by providing the necessary conceptual basis for such actions.

**Description and Work Plans**  
1978/1979

- In 1978:
- a) Five countries will be assisted through expert missions and meetings in the national level examination of their current policies and the feasibility of their adopting integrated technology plans and policies;
  - b) Documentation will be prepared for an expert group meeting on technology plans and policies to be held in early 1979;
  - c) Concepts and guidelines will be evolved to integrate appropriate technology policies with the overall industrial development strategies and policies;
  - d) An intergovernmental expert group meeting will be held for evolving methodologies for assessing the experience of government regulatory functions in technology transfer.

- In 1979:
- a) Five more countries will be assisted at the national level;
  - b) An expert group meeting on guidelines for technology plans and policies will be held;
  - c) Guidelines will be completed on the integration of appropriate technology policies with overall industrial development strategies and policies; and
  - d) Actual assessment of government regulatory functions in technology transfer will be undertaken in selected developing countries.

Costings (\$'000)	1978	Consultants Meetings		UNDP
		RB	UNIDF	
a)	-	-	95	20
b)	10	-	-	-
c)	10	-	-	-
d)	-	2	-	25
<b>Total:</b>	<b>20</b>	<b>2</b>	<b>95</b>	<b>45</b>

1979	Consultants	RB Meetings	UNIDF	UNDP
a)	-	-	100	-
b)	-	-	30	-
c)	10	-	-	-
d)	-	-	-	50
<b>Total</b>	<b>10</b>	<b>-</b>	<b>130</b>	<b>50</b>
<b>Total 1978-1979</b>	<b>30</b>	<b>2</b>	<b>225</b>	<b>95 = 352</b>

Schedule for 1978:

	J	F	M	A	M	J	J	A	S	O	N	D
a)	5 country level missions before December											
b)						12					13	14
c)						12					13	14
d)					4	5		6				

Programme Development and Transfer of Technology Section  
Component:

Project No.: TECH-2

Title: DEVELOPMENT AND STRENGTHENING OF INDEGENOUS TECHNOLOGICAL CAPABILITIES

Project Officers: J. Gilgun, K. Venkataraman, H.A. Janissewski, W.H. Tanaka

Objective To assist developing countries in the development and strengthening of their industrial technological capabilities by providing them alternative approaches to organised action with reference to their specific requirements; by promoting concrete programmes of action in selected areas; and by promoting and facilitating requisite training in this field.

Description and  
1978/1979  
Work Plan:

In 1978:

- a) Alternative approaches and models for institution building as well as linkages will be developed;
- b) Available models of national offices for transfer of technology will be analysed and compared;
- c) The elements of a programme of national action for strengthening consultancy and information capabilities will be formulated, inter alia, through identification of requirements in specific regions/sub-regions; and a framework for action in strengthening information and consultancy services in the food industry in the countries of the Andean Pact region will be developed and sought to be implemented through UNDP;
- d) Available training material in the field of transfer of technology will be examined and the outlines of a training manual in this field will be established;
- e) An international symposium will be held on "Managerial Implications of Transfer of Technology" in Korea.

In 1979:

- a) Alternative models for institution building and institutional linkages will be finalised and applied in two country missions to be undertaken on request;
- b) Guidelines for establishment or re-organization of national offices for transfer of technology will be completed and published;
- c) Programmes of action in the field of consultancy and information at the national, regional and sub-regional levels will be developed through exploratory-cum-advisory missions and state-of-the-art reviews; and the result of activities in regard to information and consultancy in the food industry in the Andean Pact region will be reviewed.
- d) A training manual on selected aspects of transfer of technology will be compiled and published.

Costing Data:

(\$'000)

	<u>1978</u>		UNDP	UNDP
	Consultants	RB Meetings		
a)	5	-	-	-
b)	3	-	-	-
c)	6	-	34	15
d)	-	-	4	-
e)	-	-	16	-
<b>Total</b>	<b>14</b>	<b>-</b>	<b>54</b>	<b>15</b>

1979

a)	5	-	15	-
b)	5	-	-	-
c)	10	-	20	-
d)	-	-	6	-
e)	-	-	-	-
<b>Total</b>	<b>25</b>	<b>-</b>	<b>41</b>	<b>-</b>

**Total 1978-9 39 - 95 15 = 149**

Schedule for 1978:

	J	F	M	A	M	J	J	A	S	O	N	D
a)				12			13	14	15			
b)				12			13	14	15			
c)	Missions up to December 1978											
d)	Through December 1978											
e)				23	4	5			6			

Programme  
Component:

Development and Transfer of Technology Section

Project No.:

TECH-3

Title:

IDENTIFICATION AND USE OF INDIGENOUS TECHNOLOGIES  
IN DEVELOPING COUNTRIES

Project Officers:

W.H. Tanaka, J. Gilgun, K. Venkataraman, V. Masots,  
G. Tabah and A. Swamy-Rao

Objective:

To assist developing countries in surveys of indigenous technologies and collection and dissemination of practical experience to identify, up-grade and use technologies indigenously available, including those in the rural areas, and to promote the transfer of such technologies.

Description and  
1978/1979  
Work Plan:

In 1978:

- a) Surveys of indigenous technologies in selected food processing industries in India and Thailand will be made and the results disseminated to other developing countries;
- b) A programme of action for the collection and dissemination of information on technologies from developing countries and for the transfer of such technologies will be elaborated and the present dissemination of such information accelerated;
- c) A conceptual approach and a programme of action for the application of industrial technology to rural development will be developed;
- d) Case studies of successful experience in developing countries will be undertaken in regard to:
  - (i) development of miniplants in the iron and steel sector; and
  - (ii) the utilization of agricultural waste in paper making.

In 1979:

- a) The upgradation and/or transfer of selected technologies identified in the food processing sector through the surveys in Thailand and India will be promoted; in addition, fresh surveys of indigenous technologies in selected sectors/countries will be initiated;
- b) The programme of transfer of technologies from developing countries will be put into operation on a pilot basis;
- c) A pilot project on the application of industrial technology to rural development will be implemented; and
- d) The case studies on mini iron and steel plants and the utilization of agricultural wastes in paper making will be evaluated through two separate techno-economic workshops and the results disseminated for the benefit of the developing countries.

Costing Data:  
(\$'000)

	RB	UNDP	UNDP	
1978 Consultants	Meetings			
a)	21	-	5	-
b)	3	-	25	-
c)	5	-	-	-
d)	-	-	40	-
<b>Total</b>	<b>29</b>	<b>-</b>	<b>70</b>	<b>-</b>
<u>1979</u>				
a)	10	-	60	-
b)	-	-	50	-
c)	15	-	-	-
d)	-	-	40	-
<b>Total</b>	<b>25</b>	<b>-</b>	<b>150</b>	<b>-</b>
<b>Total</b>	<b>54</b>	<b>-</b>	<b>220</b>	<b>- 274</b>
<u>1978/9</u>				

Schedule for  
1978:

	J	F	M	A	M	J	J	A	S	O	N	D
a)	Surveys completed							Results disseminated				
b)				12	13			14	15			
c)												
d)				13					14	15		

Programme Development and Transfer of Technology Section  
Component:

Project No.: TECH-4

Title: APPROPRIATE INDUSTRIAL TECHNOLOGY

Project Officers: K. D. N. Singh, W. H. Tanaka, K. Venkataraman, H. W. Pack  
H.A. Janiszewski and G. Taboh

Objective and  
Description: To follow up the Programme of Action on Appropriate Industrial Technology, to promote and/or implement specific projects in this area and to mobilize wide interest and action both at the policy making and operational levels, in particular through the meetings of the Consultative Group and International Forum on Appropriate Industrial Technology.

Description and  
1978/1979  
Work Plan:

In 1978:

- a) A meeting of the International Forum on Appropriate Industrial Technology will be organized with special emphasis on twelve industrial sectors and the overall policy norms to be adopted in formulating an appropriate industrial technology strategy as part of the overall industrial development strategy;
- b) A meeting of the Consultative Group on Appropriate Industrial Technology will be held to elaborate conceptual and operational links between appropriate technology and industrial development strategy and to provide inputs for the International Forum on Appropriate Industrial Technology;
- c) A socio-economic feasibility study on the development of a small-scale, low-cost rice bran stabilizer will be undertaken and completed;
- d) Implementation will be continued on the project to develop the most suitable and appropriate production unit in the mechanical industries sector for developing countries in Africa; country investigations will be completed and a country for establishing the pilot unit will be selected;
- e) A project for the strengthening and modernization of the technological performance of small and medium scale industries in Philippines will be undertaken and a state-of-the-art survey initiated in 1978;
- f) As part of the pilot operation commenced in 1977, two or more research programmes will be sponsored at the graduate level in universities in the field of appropriate industrial technology.

In 1979:

- a) Follow-up action on the conclusion and recommendations of the International Forum on Appropriate Industrial Technology will be undertaken in selected sectors as well as in regard to overall policy aspects;
- b) A meeting of the Consultative Group on Appropriate Industrial Technology will be held to discuss the results of the Forum and also to provide necessary inputs for the UNCSTD and UNIDO III;
- c) Following the socio-economic feasibility study steps will be taken, as necessary and appropriate, to set up a pilot

- plant in a selected country for the development of a small-scale rice bran stabilizer;
- d) The establishment of a pilot production unit in the mechanical industries sector in Africa will be promoted;
  - e) a review of the results of the project for strengthening and modernising technological performance for small and medium scale industries will be made and the experience disseminated to other developing countries through a regional workshop;
  - f) two or more pilot projects for research at graduate level will be sponsored and the experience of the pilot operations reviewed on an interim basis.

Costing data:

	1978	RB Consultants Meetings	UNIDF	UNDP
a)	-	-	100 (200)	-
b)	40	-	-	-
c)	-	-	-	25
d)	-	-	140	-
e)	-	-	139	-
f)	10	-	-	-
<b>Total</b>	<b>50</b>	<b>-</b>	<b>379 (479)</b>	<b>25</b>
<hr/>				
	1979			
a)	-	-	50	-
b)	50	-	-	-
c)	-	-	-	To be ascertained
d)	-	-	160	-
e)	-	-	145	-
f)	15	-	-	-
<b>Total</b>	<b>65</b>	<b>-</b>	<b>355</b>	<b>-</b>
<hr/>				
<b>Total 1978-9</b>	<b>115</b>	<b>-</b>	<b>734 (834)</b>	<b>25 = 874 (974)</b>



1978 Schedule:

	J	F	M	A	M	J	J	A	S	O	N	D	
a)			1	2,3						4	5	6	
b)			1,2,3			5	6						
c)													
d)			Through December 1978										
e)			Through December 1976										
f)			Contracts to be finalised by June										

Programme

Component

Development and Transfer of Technology Section

Project No.:

TECH-5

Title:

SELECTION AND ACQUISITION OF TECHNOLOGY

Project officers:

J. Gilman, K. Venkataraman, V. Maoto, H.A. Janiszewski

Objective:

To assist the developing countries in improving the means whereby they can assess, select and acquire, on favourable terms, technologies appropriate to their industrial development requirements and strengthen their negotiation capabilities.

Description and

1978-1979

Work Plan:

In 1978:

- (a) A compilation of alternative technologies will be prepared in selected industrial branches with special emphasis on industries meeting basic needs;
- (b) A methodology for comparison and evaluation of alternative technologies will be developed and applied in two selected industrial branches; in addition, technical memoranda will be prepared and published on sugar processing and rice milling;
- (c) Documentation will be prepared and a workshop conducted to exchange experience on the acquisition and use of technology in public sector enterprises;
- (d) Guidelines for the evaluation of technology transfer agreements will be published and a workshop on practical issues of technology transfer organized on the occasion of the TECH TRANSFAIR 78;
- (e) Case studies in licensing in selected industrial sectors will be prepared and published;
- (f) An assessment of the use of selected second-hand textile machinery will be made through case studies.

In 1979:

- (a) Compilations prepared in 1978 will be published and compilations in additional selected sectors will be undertaken;
- (b) Technical memoranda will be prepared and published for two additional products;
- (c) As a follow-up of the results of the workshop, selected case studies will be published;
- (d) UNIDO guidelines for the acquisition of technology will be enlarged and updated; and a training programme in transfer of technology will be conducted in a selected developing country;

- (e) Further case studies on licensing will be published in selected industrial sectors;
- (f) Results on the assessment made in 1978 of the use of selected second hand textile machinery will be disseminated, as appropriate.

Costing data:  
(\$'000)

1978	RB		UNIDF	UNDP
	Consultants	Meetings		
(a)	-	-	10	-
(b)	23	-	-	-
(c)	10	-	20	-
(d)	2	-	35	-
(e)	4	-	-	-
(f)	8	-	-	-
<b>Total</b>	<b>47</b>	<b>-</b>	<b>65</b>	<b>-</b>

1979				
(a)	-	-	10	-
(b)	20	-	-	-
(c)	staff work		-	-
(d)	5	-	20	-
(e)	-	-	15	-
(f)	staff work			
<b>Total</b>	<b>25</b>	<b>-</b>	<b>45</b>	<b>-</b>

<b>Total</b>	<b>72</b>	<b>-</b>	<b>110</b>	<b>-</b>	<b>182</b>
--------------	-----------	----------	------------	----------	------------

Schedule for 1978:

	J	F	M	M	A	M	J	J	A	S	O	N	D
(a)					12				13	14	15		
(b)						13	14	15					
(c)							5	6					
(d)						5, 15							
(e)						13	14	15					
(f)								13	14	15			

Programme  
Component:

Development and Transfer of Technology Section

Project no.:

TECH 6

Title:

Technological Co-operation between developed and developing countries in small industry

Project officers:

H.W. Paek and L. Karlik

Objective:

To develop and make operational a mechanism of technological co-operation between small industry in the developed and developing countries, inter alia, through the systematic collection and exchange of information.

Description and  
Work Plan  
1978/1979:

In 1978, the broad principles of operation will be settled and participating countries and sectors selected.

In 1979, the mechanism will be made operational on a pilot basis.

Costing data:  
(US\$'000)

	RB		UNIDP	UNDP
	Consultants	meetings		
1978	-	-	25	-
1979	-	-	20	-
Total 1978/1979	-	-	45	-

Schedule for  
1978

J	F	M	A	M	J	J	A	S	O	N	D
			12			13	14	15			

Programme  
Components:

Development and Transfer of Technology Section

Project No.:

TECH 7

Title:

PROMOTION OF TECHNOLOGICAL CO-OPERATION AMONG  
DEVELOPING COUNTRIES

Project officers:

W.H. Tanaka, R.T. de Mautort, K. Venkataraman, H.W. Pack,  
H.A. Janiszewski

Objective:

To promote technological co-operation among developing countries in the development and transfer of technology, in particular through effective institutional linkages.

Description and  
1978/1979  
Work Plan:

In 1978:

- a) In collaboration with ESCAP, a workshop for the focal points of the Asian Regional Centre for Transfer of Technology will be held, with particular reference to institutional linkages to be established among them and with the RCTT and UNIDO;
- b) The RCTTs of the ESCAP and ECA regions and the proposed RCTT of the ECWA region will be assisted in their country missions and other relevant activities in order to strengthen and initiate specific activities under their auspices at the national and regional levels.
- c) A mechanism for the collection, consolidation and exchange of information on research programmes of industrial research institutes of developing countries will be developed and made operational, including a network of technological institutions of the ASEAN Group countries;
- d) As a follow-up of the recommendations of consultation meetings, the feasibility of establishing sectoral technology centres in selected industrial sectors will be examined;
- e) A meeting of heads of national registries of transfer of technology will be held in order to arrive at mechanisms for concrete co-operation in selected fields. An initial programme will be started in 1978.

In 1979:

- a) Two workshops will be organized for the focal points of the ECA and ECWA regions respectively;
- b) Assistance will continue to be provided to selected activities of the regional centres for transfer of technology in different regions;
- c) The system of exchange of information among industrial research institutes will be continued;
- d) Work on the establishment of sectoral technology centres will be continued; and
- e) Follow-up action will be taken on the decisions of the meeting of heads of national registries, including, if necessary, a further meeting.

Costing data:

	RB		UNIDF	UNDP
<u>1978</u>	Consultants	meetings		
(a)	-	-	15	-
(b)	-	-	22	-
(c)	5	-	-	-
(d)	-	-	20	-
(e)	-	-	47	-
<b>Total</b>	<b>5</b>	<b>-</b>	<b>104</b>	<b>-</b>
<u>1979</u>				
(a)	-	-	30	-
(b)	-	-	28	-
(c)	-	-	-	-
(d)	-	-	20	-
(e)	-	-	30	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>108</b>	<b>-</b>
<b>Total 1978/1979</b>	<b>5</b>	<b>-</b>	<b>212</b>	<b>- 217</b>

Schedule  
for 1978

	J	F	M	A	M	J	J	A	S	O	N	D
(a)				5	6							
(b)	through 1978											
(c)	System to operate from July											
(d)												
(e)	Second half of 1978											

Programme  
Components:

Development and Transfer of Technology Section

Project no.:

TECH 0

Title:

UNITED NATIONS CONFERENCE ON SCIENCE AND TECHNOLOGY FOR  
DEVELOPMENT - PREPARATION OF DOCUMENTATION

Project officers:

K. Venkataraman, W.H. Tanaka, J. Gilgun and H.W. Pack

Objective

To prepare and distribute to the participants in the Conference and its preparatory phases, concise studies on selected issues before the Conference, in order to assist the Conference in reaching action-oriented decisions. Each of the studies will deal with the relevance of the issues to the overall objectives in the development and transfer of technology, the present situation in developing countries, fresh alternative approaches to the issues and a programme of action.

Description and  
1978/1979  
Work Plan:

In 1978, the following studies will be prepared and distributed:

- (a) National policies and actions for development of technological capabilities;
- (b) Appropriate institutional framework for development of capabilities for choice, adaptation and innovation;
- (c) Interrelationship between industrialization and technological development to achieve the Lima target; and
- (d) Human resources development for the industrial and technological needs of developing countries

In 1979 the studies at (a) to (d) will be revised and elaborated as appropriate for eventual distribution at the UNCSTD and UNIDO III.

Costing data:  
(\$'000)

	RB		UNIDF	UNDP
	Consultants	meetings		
1978				
(a)	5	-	-	-
(b)	5	-	-	-
(c)	5	-	-	-
(d)	5	-	-	-
<b>Total</b>	<b>20</b>	<b>-</b>	<b>-</b>	<b>-</b>
1979				
(a)	5	-	-	-
(b)		staff work		
(c)	5	-	-	-
(d)	5	-	-	-
<b>Total</b>	<b>15</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total 1978/1979</b>	<b>35</b>	<b>-</b>	<b>-</b>	<b>-</b>

Schedule for  
1976

	J	F	M	A	M	J	J	A	S	O	N	D
(a)		12				13	14	15				
(b)		12				13	14	15				
(c)		12				13	14	15				
(d)		12				13	14	15				



Programme  
components

Development and Transfer of Technology Section

Project no.:

TECH 9

Title:

ENERGY

Project officers:

J. Gilgun, V. Maeots and A. Swamy-Rao

Objective:

To assist the developing countries through analytical documents, meetings and pilot projects in the development and/or adoption of appropriate technologies in conventional and non-conventional sources of energy.

Description and  
1978/1979  
Work Plans:

In 1978:

- (a) Profiles of alternative energy-saving technologies in selected energy-intensive industries will be prepared and disseminated;
- (b) A workshop on technology transfer and promotion of electrical industries through co-operation among developing countries will be held;
- (c) A pilot project for the generation and utilization of non-conventional sources of energy will be promoted in a selected country; and
- (d) A study, based on a selective survey, will be made on the question of meeting the energy needs of the decentralized industrial sector and their technology implications.

In 1979

- (a) Profiles of alternative energy-saving technologies will be prepared and distributed for an additional number of selected energy-intensive industries;
- (b) Follow-up action will be taken on the workshop for the promotion of transfer of technology in electrical industries;
- (c) The pilot project on non-conventional sources of energy will be continued;
- (d) The results of the study on the energy needs of the decentralized sector will be analysed for their policy implications.

Costing data:

	RB		UNIDF	UNDP
1978	Consultants	meetings		
(a)	-	-	60	-
(b)	-	-	64	-
(c)	-	-	30	-
(d)	5	-	30	-
<b>Total</b>	<b>5</b>	<b>-</b>	<b>184</b>	<b>-</b>
1979				
(a)	-	-	30	-
(b)	-	-	staff work	-
(c)	-	-	20	-
(d)	staff work	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>50</b>	<b>-</b>
<b>Total</b> 1978/1979	<b>5</b>	<b>-</b>	<b>234</b>	<b>-</b>

- 239

Schedule  
for 1978

	J	F	M	A	M	J	J	A	S	O	N	D
(a)						12				13	14	15
(b)												
(c)	Through 1978											
(d)	Through 1978											

Programme  
Component:

Industrial Information Section  
(Chief: R.T. de Mautort)

Project No.:

TECH-10 (78-79)

Title:

Information Source Management

Project Officers:

V. Pyrogov, V. Podshibyakin, Ms. I. Unamboowe, R. Lafond,  
E. Rennert, H. Beyerly, R. Cots.

Objective:

To serve the information needs of UNIDO in its studies and operational work, and in particular those of its ongoing industrial information activities and the complementary pilot project of an Industrial and Technological Information Bank (INTIB), by identifying, connecting with and drawing on sources of industrial and technological information.

Description and  
1978-79 Work Plan:

- a) developing and drawing on the "Network of Correspondents" and "Roster of Consultants" for answers to inquiries by the Industrial Inquiry Service;
- b) compiling (6) and updating (3) Guides to Information Sources for publication;
- c) drawing on computerized technological data banks, including UNIDO's own INDIS base at ICC Geneva;
- d) drawing on specialized information material developed in research and consulting institutes;
- e) drawing on patent information from WIPO/INPADOC collection;
- f) drawing on sources of audio-visual information material;
- g) drawing on world-wide sources of books, periodicals, documents published or unpublished for integration into the UNIDO Library;
- h) identifying and drawing on sources of technological information available in developing countries.

While a), b) and g) represent continuation of industrial information activities as in the past, c), d), e) and h) are new INTIB related functions, complementary to the former.

Costing data:

	<u>1978</u>		UNIDF	UNDP
	RB	Consultants Meetings		
a)	-	-	78	-
b)	10	-	-	-
c)	8	-	-	-
d)	5	-	-	-
e)	3	-	-	-
f)	-	-	8	-
g)*	-	-	-	-
h)	10	-	-	-
<b>Total</b>	<b>36</b>	<b>-</b>	<b>86</b>	<b>-</b>
<u>1979</u>				
a)	-	-	100	-
b)	10	-	-	-
c)	5	-	-	-
d)	5	-	-	-
e)	3	-	-	-
f)	-	-	-	-
g)*	-	-	-	-
h)	-	-	-	-
<b>Total</b>	<b>23</b>	<b>-</b>	<b>100</b>	<b>-</b>
<b>Total</b>	<b>59</b>	<b>-</b>	<b>186</b>	<b>- = 245</b>

\* Separate budget for library acquisitions

1978 Schedule:

Continuing activity.

Programme  
Component:

Industrial Information Section  
(Chief: R.T. de Mautort)

Project No.:

TECH-11

Title:

Information Material Management

Project Officers:

V. Pyrogov, H. Beyerly, R. Coté,  
E. Rennert and Ms. A. Melajaervi.

Objective:

To serve the information needs of UNIDO in its studies and operational work and in particular those of its ongoing industrial information activities and complementary pilot project of an Industrial and Technological Information Bank (INTIB) by maintaining, consolidating, and updating its store of industrial and technological information material.

Description and  
1978-79 Work Plan:

- a) technical processing and reader services in the Library;
- b) abstracting UNIDO publications, documents and reports for computer storage and publications in the INDIS/Industrial Development Abstract Series;
- c) microfiching in-house information material when abstracted for storage retrieval and duplication;
- d) by scanning and organizing information material with particular relevance to technology selection;
- e) developing country files with specific relevance to the information needs of the studies and operations sections;
- f) maintaining a computerized roster of consultants.

While each of the subheadings include continuation of industrial information activities as in the past, they are due, in particular under d) and f) to acquire a new quantitative and qualitative dimension at the service of the pilot INTIB operation, calling for expert services.

Costing data:

	<u>1978</u>		UNIDF	UNDP
	RB	Consultants Meetings		
a)	Staff Work			
b)	-	-	10	-
c)*	-	-	-	-
d)	10	-	-	-
e)	2	-	-	-
f)	5	-	-	-
Total	17	-	10	-

<u>1979</u>		UNIDF	UNDP
Consultants	RB Meetings		
a)	Staff Work	-	-
b)	-	10	-
c)*	-	-	-
d)	-	-	-
e)	-	-	-
<hr/>			
Total	-	10	-
<hr/>			
Total			
1978-79	17	20	- = 37

\* Separate budget for library acquisitions

1978 Schedule:

Continuing activity.

Programme  
Component:

Industrial Information Section  
(Chief: R.T. de Mautort)

Project No.:

TECH-12

Title:

INFORMATION ANALYSIS AND PROCESSING

Project officers:

V. Pyrogov, V. Podshibyakin,  
R. Coté and Ms. A. Melajaervi

Objective:

To serve the information needs of UNIDO in its studies and operational work, and in particular those of its ongoing industrial information activities and complementary pilot project of an Industrial and Technological Information Bank, INTIB, by processing industrial and technological information into a form and with a content of practical value to end users in developing countries.

Description and  
1978-79 Work Plan:

- a) preparing technological profiles in the INTIB sectors of industry;
- b) processing information material from in-house subject files and from outside sources for the purpose of answers to inquiries addressed to INTIB and the Industrial Inquiry Service, in particular relating to the selection of technologies;
- c) processing and editing manuscripts of industrial and technological information relevance for publication in the DIT series, and summarizing in the UNIDO Newsletter;
- d) processing information on audio-visual features of industrial and technological information relevance for dissemination in "Film News Notes";
- e) selective dissemination of information from outside sources obtained by the Library to headquarters and field staff and experts.

While a) will essentially relate to a specific INTIB mandate, the other items are of a continuing character but will be amplified and oriented at the service of the pilot project. Profiles under a) will mainly be devoted to the INTIB sectors agro-industries and agricultural machinery, as iron and steel and fertilizers were attended to in 1977.

Costing data:  
(\$'000)

	RB		UNDPF	UNDP
	Consultants Meetings			
<u>1978</u>	<hr/>			
(a)	30	-	-	-
(b)	10	-	-	-
(c)	-	-	10	-
(d)	staff work			
(e)	staff work			
	<hr/>			
Total	40	-	10	-
	<hr/>			
<u>1979</u>	<hr/>			
(a)	-	-	-	-
(b)	-	-	-	-
(c)	-	-	10	-
(d)	staff work			
(e)	staff work			
	<hr/>			
Total	-	-	10	-
	<hr/>			
Total	1978/1979 40		20	- = 60

Schedule for  
1978:

Continuing activity



Programme Industrial Information Section  
Component: (Chief: R.T. de l'autort)

Project No: TECH-13

Title: Information User Linkages

Project Officer: R. Côté and Ms. I. Unarboawa

Objective: To serve the needs for outlets for the information supplied by UNIDO under its ongoing industrial information activities and complementary pilot project of an Industrial and Technological Information Bank, INTIP, by establishing interlinks with the users in the developing countries and appraising their information requirements.

Description and  
1978-79 Work Plan:

- a) preparing a booklet on INTIP services and disseminating it among selected institutions;
- b) pursuing the publication of the monthly UNIDO Newsletter, re-orienting it and its computerized mailing list to constitute the principal industrial and technological information bank medium;
- c) establishing interlinks with users appraising their requirements.

While a) will be completed in 1978, b) is a continuing activity; activity under c) is limited to 1978 to correspond to the pilot operation of the INTIP.

Costing data:

	RB	UNIDP	UNDP
1978 Consultants	Meetings		
a)	2	-	-
b)	Staff Work		
c)	15	-	-
Total	17	-	-
1979	NJI		
Total 1978-1979	17	-	-

1978 Schedules:

a) will be completed by June 1978; the rest will continue through 1978.

Programme  
Component:

Industrial Information Section  
(Chief: R.T. de Mautort)

Project No.:

TECH-14

Title:

INFORMATION SYSTEMS NETWORKING

Project officers:

R.T. de Mautort, J. Gilgun, Ms. I. Unamboowe  
H.A. Janiszewski and R. Lafond

Objective:

To interlink UNIDO's own industrial and technological information network of institutional sources and outlets for its information work in this area into the overall technological information exchange network being planned in the UN system and with other relevant networks.

Description and  
1978-79 Work Plan:

- a) contributing to the development of the network under UNACC auspices;
- b) contributing to international meetings devoted to technological information needs in developing countries;
- c) organizing exchange of information and visits among national information banks, registries, etc.;
- d) carrying out a co-operative programme with OAS, RITLA, and FTD/CLA/II for information networking in Latin America;
- e) defining and undertaking a co-operative programme with Technonet and ESCAP in the South East Asian Region;
- f) carrying out a co-operative programme with ESCAP ACTT for patent information dissemination;
- g) carrying out a co-operative programme with WIPO/INPADOC for the developing of bridges between patent and other classification systems.
- h) carrying out co-operation programmes with the World Bank in the Philippines and Tunisia to organize demand, screening and service by UNIDO for answers to technological inquiries from small and medium enterprises, relating to investments involving investment banks.

Continuing data:  
(5,000)

	UNB		UNICEF	UNICEF
	Consultants meetings:			
<u>1978</u>				
(a)	5	-	-	-
(b)	5	-	10	-
(c)	-	-	10	-
(d)	5	-	-	-
(e)	3	-	-	-
(f)	10	-	-	-
(g)	9	-	-	-
(h)	-	-	35	-
<b>Total</b>	<b>37</b>	<b>-</b>	<b>55</b>	<b>-</b>
<u>1979</u>	-	-	60	-
<b>Total</b>				
<b>1978/1979</b>	<b>37</b>	<b>-</b>	<b>115</b>	<b>152</b>

**Programme Component:** Industrial Information Section  
(Chief: R.T. de Mautort)

**Project No.:** TECH-15

**Title:** INTIB co-ordination, extension and evaluation

**Project officer:** R.T. de Mautort

**Objective:** To co-ordinate INTIB activities as a complement to existing information and advisory services; to bridge a 6 months' period between the end of the pilot operation, 31 December 1978 and IDB's decision at its May/June 1979 session on its continuance; and to evaluate the operation and report to the IDB.

**Description and 1978-79 Work Plan:**

- a) co-ordination of INTIB activities;
- b) continuing for six months into 1979 INTIB operations as per details under projects TECH-10 to TECH-13;
- c) holding an evaluation meeting of experts in February 1979;
- d) reporting on INTIB operations since July 1978 and formulating recommendations to IDB.

Costing data  
(\$'000)

	NB consultants meetings		UNIDF	UNEP
	n i l			
<u>1978</u>				
a)	-	-	-	-
b)	-	-	80	-
<u>1979</u>				
c)	20	10	-	-
d)	-	-	-	-
<b>TOTAL</b>				
<b>1978/1979</b>	<b>20</b>	<b>10</b>	<b>80</b>	<b>100</b>

Schedule for 1978

No work in 1978. Project intended for first six months of 1979.

Programme  
components:

Technology Group (Development and Transfer of Technology  
Section and Industrial Information Section)

Project No.:

TECH 16

Title:

TECHNOLOGICAL ADVISORY SERVICES

Project officers:

E. Aguilar and H.A. Janiszewski

Objective:

To provide at the request of the governments and parties concerned and on the basis of the information and expertise available within UNIDO, information, consultation and advisory services to developing countries at the time of the negotiation of technology contracts and related technology arrangements for large projects.

In 1978, advisory services will be provided for ten large-scale projects. An evaluation of this project will be undertaken at the end of the year.

Costing data  
(\$'000)

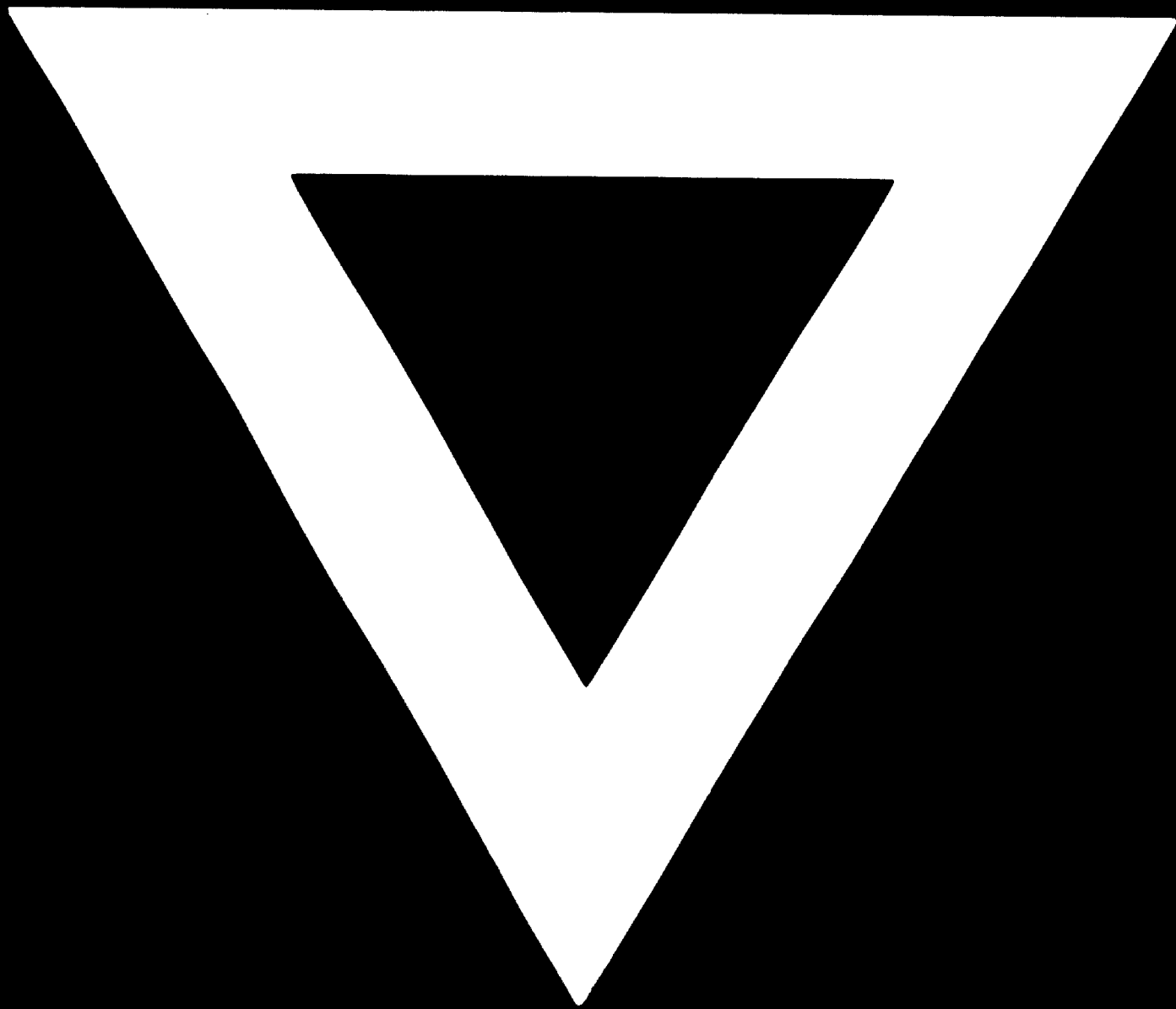
Funds to the extent of \$100,000 have been requested from extrabudgetary sources.

Schedule for  
1978:

Through 1978



**C-670**



**78. 11. 08**