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OTHER FUNDS AND PROGRAMMES

REPORT OF THE ADMINISTRATOR ON THE UNITED NATIONS FUND FOR SCIENCE AND  
TECHNOLOGY FOR DEVELOPMENT AND ENERGY ACCOUNT

Summary

The report presents the results of legislative action leading to the establishment of the UNFSTD as a trust fund within UNDP, together with its objectives and functions. As requested by the Governing Council, it also sets out organizational arrangements for the new Fund and for related activities. This includes arrangements for the management and operations of the Energy Account. Estimates of the resource outlook and budgetary implications of the merged operations are also provided. The report indicates some options for future programme orientation in the fields of science, technology and energy, and suggests possible areas of concentration for applying technology to the efforts of developing countries in these fields.

Information on operational activities of the UNFSTD and the Energy Account in 1986 is also provided.

The financial implications in respect of staffing UNFSTD and the Energy Office are referred to in paragraph 21 of this document. Further details are included in document DP/1987/55 containing the biennial budget estimates 1988/1989.

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## I. ESTABLISHMENT OF THE UNFSTD

### A. Legislative action

1. As called for in General Assembly resolution 41/183, the United Nations Fund for Science and Technology for Development was established on 1 January 1987 as a trust fund within UNDP. The former Financing System was terminated as of 31 December 1986 and its ongoing projects, related resources and responsibilities were transferred to the Fund. The rationale underlying the decision was that the priority objective of strengthening the science and technology capabilities of developing countries could best be achieved by placing this funding mechanism within the more secure institutional environment provided by UNDP.
2. At its thirty-third session, the Governing Council had, in decision 86/38, endorsed the proposal that the Administrator establish a facility for science and technology for development within UNDP, following the recommendation by the Intergovernmental Committee on Science and Technology for Development (IGC) in June 1986. The Council also requested a report at its thirty-fourth session on "the arrangements made for putting into effect and complying with the decisions of the General Assembly on this matter; on the resource situation and prospect for the facility and on proposals for the organizational structure, staffing and budget of the facility for the 1988-1989 biennium".
3. In discussing this matter, many Council members sought clarification of the institutional status of the proposed facility, the policies that would govern it and the relationship between the IGC and the Council.
4. The General Assembly's action in December 1986 helped to clarify the situation and the Administrator was able to proceed with the arrangements summarized here for putting the General Assembly decision into effect. This report sets out in a preliminary way some considerations that will guide the operations of the Fund and other activities in this transitional period, pending the guidelines to be provided by the IGC.

### B. Objectives and functions

5. In the course of reaching the decision, it was agreed that the primary objectives for the UNFSSTD set out in General Assembly resolutions 34/218 and 36/183 remained valid. These give high priority to enhancing the capacities of developing countries and to promoting international co-operation in science and technology.
6. In working towards these objectives, the main responsibilities of the Fund are as follows:

(a) To help finance, design and implement a range of activities intended to strengthen the endogenous scientific and technological capacities of the developing countries, as well as to strengthen inter-country co-operation, utilizing new financial modalities and operational arrangements;

(b) To work collaboratively with other multilateral, bilateral programmes and non-governmental entities, to support national capacity-building efforts of developing countries in science and technology;

(c) To assist in the mobilization of financial and other resources for these purposes. In this connection, the Fund would be authorized to enter into arrangements with international, regional and other public and private organizations;

(d) To be a focal point for science and technology within UNDP, which would serve to provide up-to-date advice and technical inputs to other UNDP activities with science and technology components, and to represent UNDP in intergovernmental and other forums on science and technology.

7. The first three areas of responsibility deal with strengthening national capacities and promoting international co-operation. In effect, they provide continuity to the work initiated by the Financing System. In fact, much of the experience gained by the Financing System over its seven-year operational period provides a useful framework in pursuing these objectives. The fourth is a new function. It is described in paragraph 15 under "Advisory Services".

### C. Organizational arrangements

#### Intergovernmental

8. At the intergovernmental level, the Administrator will report to the Governing Council on all aspects of Fund operations and management. As agreed under the terms of General Assembly resolution 41/183, the Intergovernmental Committee will provide policy guidance and priorities for activities of the Fund within the framework of the Vienna Programme of Action. The Administrator will take the Committee's guidance on policies and priorities into account when identifying projects to be financed by the Fund.

9. The operations of the Energy Account which, as noted below, will be under the same management as that of the Fund, will be reported to the Council in a consolidated document. Information will also be provided to the Committee on New and Renewable Sources of Energy, as in the past.

#### Secretariat

10. As a step in the harmonization of UNDP-administered funds and to give better coherence to work in science and technology and related activities, it has been decided to place UNFSTD within the Bureau for Special Activities, its Director reporting to the Assistant Administrator.

11. For the same reasons, the management of the activities of the Energy Office/Account will be placed under the Director. The staff of the Energy Office has been reduced and the remaining staff will be merged with those of the Fund within a single, integrated management structure: the Division for Science,

Technology and Energy. The Energy Account itself will remain as an identifiable funding mechanism and the responsibilities and functions assigned to it by the Governing Council will be carried under the new management arrangements.

12. Additional functions attached to this Division are the ongoing Transfer of Knowledge through Expatriate Nationals (TOKTEN) and Short-Term Advisory Services (STAS) programmes.

13. Within this structure the Fund will have two substantive activities: programme operations and technical advisory services. Some specific functions to be carried out under these headings are set out below:

#### Programme operations

14. This refers to operational activities funded directly with resources of the Fund and the Energy Account and in co-financing arrangements between these and other funding sources.

- Providing programmatic support to countries/field offices in identifying, developing and negotiating science, technology and energy-related projects for possible funding from the resources of the Fund and the Energy Account, both directly and in co-financing arrangements;
- Undertaking the formulation and appraisal of project proposals;
- Monitoring the implementation of projects in order to ensure effective attainment of outputs, including the provision of management services;
- Maintaining liaison on field operations with host Governments, UNDP Resident Representatives and executing agencies;
- Ensuring full co-ordination with other UNDP bureaux/funds at headquarters, with donor Governments and other concerned organizations in the process of project development and implementation.

#### Advisory services

15. This is a new responsibility: to assist in providing technical inputs in the programming and implementation of science, technology and energy-related activities funded by UNDP, and to give greater coherence to these areas in overall development efforts.

16. In carrying out the advisory function, substantive/technical inputs will be provided to UNDP-funded activities at the country programming stage and to individual projects through the project cycle. Specifically:

- Technical advice on request and in close co-operation with UNDP/BPPE, on the identification, design and appraisal of projects which have significant science, technology and energy components; also assistance in project implementation and evaluation where needed, particularly the second phases of projects initiated earlier by UNFSSTD or the Energy Account;

- Inputs to country programme preparations, NatCaps, Round-tables, Consultative Groups, etc., where science, technology or energy is a priority issue;
- Suggestions on policies and modalities for co-operation and annual reviews for the Administrator and Regional Bureaux on trends in science, technology and energy as these relate to such international technical co-operation;
- UNDP representation on science, technology and energy matters.

17. In addition to these substantive activities, the Division would manage administration, budget/finance and resource mobilization activities within the procedures established by UNDP.

#### D. Resources outlook: 1987 and beyond

18. It is evident from the legislative history leading to the establishment of the UNFSTD that both developing and developed countries hoped that this transformation would result in greater and more consistent support for multilateral technical assistance in this increasingly important area. As a result of the pledging conferences in April 1986 and in November 1986, UNFSTD has realized in this transitional phase modest pledges and other commitments valued at \$1.8 million in monetary resources, and in-kind contributions valued at \$3.8 million. On the basis of statements made by Governments at these pledging conferences, additional resources of about \$1 million are expected in 1987. As agreed, the remaining resources and responsibilities of the UNFSSTD, valued at \$12 million, have also been made available to the new Fund.

19. In view of the merger of the energy activities within the management of the Fund, the resources of the Energy Account would also be administered in an integrated way, even though the Account would remain a separate financial entity. Some 14 ongoing energy projects valued at \$6.5 million would be implemented in 1987 by the Fund and uncommitted resources of about \$3 million would be available for programming in 1987 and beyond. In addition, energy assessment projects valued at \$9 million, funded by the Energy Account, are being managed by the Division for Global and Interregional Projects (DGIP).

20. It is important to note that several of the recent UNFSSTD projects have led to co-financing with UNDP, as well as multilateral and bilateral arrangements. It is expected that the Fund would seek to maximize the use of its resources in similar arrangements. This is discussed further in Section III.

#### E. Budgetary implications

21. For the science/technology and energy functions, the use of seven Professionals and eight General Service staff is planned in the 1988/89 biennium, roughly one half of the staff authorized for these activities in 1986. These administrative costs, estimated at \$1.2 million, annually will be met from the resources of the Fund and those of the Energy Account. Part of the cost of

providing advisory services on both science/technology and energy matters would be met from user fees on a reimbursable cost-basis.

22. It is expected that these consolidations will help achieve greater programme cohesiveness, as well as substantial savings in administrative expenditures. 1/

## II. OPERATIONAL ACTIVITIES IN 1986

### A. UNFSSTD

23. In summarizing the highlights of project activities during the past year, it should be noted that 1986 was a transitional year for the Financing System and that emphasis was placed mainly on the consolidation of already ongoing activities, rather than on new initiatives. At the beginning of 1986, some 41 projects with a total value of \$40 million were still under implementation. By the end of the year, a balance of 25 projects valued at approximately \$12 million remained to be implemented in 1987. One third of the projects were designed to support research and development activities to improve technologies in the productive sector. Twenty per cent were in the field of science and technology policy and 15 per cent represent computer-related activities providing technical information and support to information systems. The balance dealt with a variety of activities designed to strengthen internal science and technology capacities.

24. These projects cover a number of sectors, although agriculture, industry and energy are the primary focus, followed by science education, health and mineral resources. Because of the decline in core resources over the years, the most significant projects are financed from non-core resources.

25. At the interregional level, the Technological Information Pilot System (TIPS) has now moved into its operational phase. This project links 10 developing countries through existing telecommunication techniques to exchange current technology information.

26. Strengthening the Computer Faculty at Asian Institute of Technology is also oriented to improved training in computer skills. The project has now become fully operational. Another project geared to the application of computer technologies is the Computer-based Management Training Programme for China, which is implemented by the Chinese Enterprise Management Association under the sponsorship of the State Science and Technology Commission. It involves intensive training in China and Norway.

27. Projects aimed at improving agriculture and fostering rural development include Appropriate Technologies for Rural Communities in Indonesia. It operates within the framework of the Indonesian Institute of Science. The project is developing new technologies and disseminating proven ones for rural populations. Assistance to Senegalese Institute for Agricultural Research is financed from core resources and is the central information system for all agricultural research in the country. Two projects, one in Yemen and the other in Madagascar, specialize in oceanographic research. The latter, fully funded from core resources, has



attracted international attention by the work it has carried out in physical, chemical and biological oceanography.

28. Among activities designed to improve food production and increase productivity is the National Food Technology and Quality Control Research and Development Center in China. Short-term training in food technology and quality inspection, as well as research in such areas as soybean derivatives, is now under way.

29. A unique initiative launched by UNFSSTD is the Regional Non-destructive Testing Network in Latin America, which has already attracted important follow-up funding by other multilateral and bilateral resources. So far, 5,000 technicians have been trained, i.e. one fourth of the estimated 20,000 persons involved in the activities of the network in the region. The Latin American network is now being linked with a similar Asian network.

30. One of the most cost-effective initiatives of the Fund has been science and technology policy activities, such as those carried out on a national level in 1986 in Ethiopia or on an international level, through the series of Beijing International Conferences on Strategic Orientation of Technology for National Development, the second of which took place in April 1986.

31. The Fund continued to utilize its special position within the UNDP system to foster collaboration with the private sector. In addition to its traditional partners, such as universities, research institutes and professional associations, a new dimension has been added. Private corporations, many of them multinationals, are now offering in-kind contributions to developing countries. These are channelled through the Fund to those countries interested in such activities. The Fund, in co-operation with the UNDP field network, is now carrying out the essential task of matching supply and demand. The administrative cost for these activities is covered by specific contributions.

32. Another private sector initiative now under implementation is the creation of an African International Consulting Consortium, which brings together selected African and non-African engineering firms to broaden the opportunities for consulting opportunities and to improve African capabilities in this area.

#### B. Energy Account

33. The principal function of the Energy Account is to identify and promote activities in the energy sector of developing countries that will contribute to a more efficient and rational use of limited foreign exchange that goes towards importing fuel. The emphasis has been on the use of new and renewable sources of energy, particularly since the United Nations Conference on the subject in 1981 and the resulting Nairobi Programme of Action. The Energy Account is actively involved in the transfer of technology, primarily through training, and works in co-ordination with other bilateral and multilateral organizations working in this field.

34. Currently some 17 projects, representing a total value of approximately \$15.5 million, are being implemented directly or jointly with DGIP. An additional \$3 million will be available from the Fund for Development of the Organization of Petroleum-Exporting Countries (OPEC) for implementing projects in the future, while other contributions from other donor countries are received on an ad hoc basis, as and when projects are identified. A list of ongoing energy projects is contained in annex III.

35. The limited funds available to the Energy Account necessitate concentration in areas which are not normally served by conventional sources such as UNDP/IPFs or bilateral aid programmes. Examples of such approaches are evident in two programmes in technology assessment, namely the Global Biomass Gasifier Programme, and the Global Wind Pumping Evaluation Programme. The objective of both is to monitor current operational activities in these two fields and develop procedures and guidelines for field testing and monitoring of equipment and systems for wider application. In the use of photovoltaics for the production of energy in locations where access to conventional power through the grid is not available, a major shortcoming to be addressed is a lack of awareness of the technology among planners and decision-makers dealing with energy sector investment. For this purpose, two photovoltaic workshops were organized in 1986 as a pilot exercise; the results have been encouraging.

36. The merger of Energy Account operations within the integrated management structure of the Division for Science, Technology and Energy is expected to strengthen the technological focus of projects funded from this source. This would apply not only to projects dealing with specific energy sources and applications, but also to the formulation of technology strategies for energy alternatives in the national context.

### III. APPROACHES FOR THE FUTURE

37. Under the terms of General Assembly resolution 41/183, the IGC will provide policy guidance and priorities for the activities of the Fund within the framework of the Vienna Programme of Action. The Administrator will take recommendations of the Committee into account in identifying projects to be financed from the Fund. The views provided by the Committee on New and Renewable Sources of Energy will continue to be a valuable source of advice in this field.

38. There is already a considerable body of experience on which to begin formulating some approaches for the future operations of the Fund. This would include the project experience both of the Financing System and UNDP in appraising and implementing over 800 projects in these fields since 1980.

39. In view of the obvious resource constraints, but also in recognition of its strengths as a special focus within the strong institutional base of UNDP, it is suggested that the Fund should attempt to maximize the impact of resources available to it or through it, rather than try to address directly major problems of science and technology in the development process.

40. Within this framework, some operational options could be outlined as follows:

(a) Utilize the limited financial resources of the Fund as seed money to open interesting new possibilities for follow-up activities. Indeed, the experience of the Financing System confirms this approach. For instance, an input of \$106,000 to the Latin American Non-Destructive Testing Network has led to considerably larger contributions from the Governments of Italy, Canada, the Federal Republic of Germany and the International Atomic Energy Commission (IAEC) as well; a small contribution of \$30,000 for a preparatory phase has now resulted in a regional UNDP/IPF project of \$2 million to establish the African Biological Network; and the success of the UNFSSTD-supported technology transfer on carbon fibre composites to Brazil, conveyed to other countries through an international workshop, has now led to a similar project in China.

While seed money from general resources would necessarily be provided in small amounts (say, under \$100,000 per project), larger projects could be undertaken through sub-trust funds or management service contracts, as appropriate.

(b) Adopt a more active role in helping Governments identify problems and in organizing to tackle them. The solutions now available through frontier technologies - and the blending of the advanced with the traditional - can be actively promoted together with the new national policies which require staying abreast in a rapidly changing environment or even leap-frogging where conditions warrant. The UNFSSTD-sponsored series of Beijing International Conferences have given significant impetus to this process.

(c) Mobilize the considerable goodwill and scientific know-how available in professional societies, universities, non-governmental organizations and in the corporate sector, to mutual advantage. Networking gives the third world scientist access to the knowledge of the scientific community and establishes longer-term twinning arrangements. A start has already been made in this direction in collaboration with major professional societies, universities and with private corporations.

(d) Rely to the optimum extent on national experts and Government execution of projects as a means of technical capacity building. The Financing System experience since 1980 (in which roughly half of all projects were government executed), warrants an enlargement of this approach. For science and technology in particular, giving a fledgling institution responsibility to invite scientists, procure equipment and arrange training programmes is itself a means of capacity-building.

(e) Systematize the use of high-level expert services and others in order to engage the world scientific community on science and technology programmes. As the state of the art is advancing rapidly, it is not feasible to cover all the expertise needed within UNDP. But, as a focal point for science and technology within UNDP, the Fund can organize to access the full range of specializations - through referral to FSTD-established consultant rosters and expert consultations, primarily on a voluntary basis. Such peer review, by correspondence, by electronic communications and occasionally by panel discussions, is the normal practice in the

scientific field. In-house professionals could provide first-level advice to the Regional Bureaux and Governments on request and, as required, mobilize the specialized knowledge needed in the design and appraisal of bankable science and technology projects.

The linking of the TOKTEN and STAS programmes to work in science, technology and energy will provide additional mechanisms to match the practical skills available in different disciplines to the problems at hand.

In the scientific field, significant benefits can be achieved by practitioners meeting regularly in technical workshops, while major penalties can result from the lack of prompt, accurate information flows. With rather small grants, such interchanges of ideas can be supported by the Fund and thus promote the internationalization of science.

(f) Experiment with innovative ways of transferring technology and with approaches not utilized before. Some recent examples include the establishment of the African International Consulting Consortium, which could help nascent African firms acquire consultancy skills and experience from their international partners through learning-by-doing. The TIPS project is an example of an innovative activity which can be enlarged, if warranted, to other information sectors and additional countries.

#### A. Suggested areas of concentration

41. In light of the clear potential for applying technology to developing country problems and the realistic possibilities of the Fund, concentration of its efforts could be considered in the following:

(a) Formulating science policies, policy instruments and plans to strengthen endogenous capacities, particularly in the least developed and small island countries. This could cover issues in technology forecasting/assessment/impact. In these exercises, national organizations would undertake primary responsibility, with selected external assistance to supplement local effort;

(b) Enhancing local knowledge and skills to upgrade traditional technologies in order to meet the special needs of rural communities and other disadvantaged groups according to their definitions and priorities;

(c) Providing access to expertise and hardware needed to acquire and adapt advanced technologies appropriate to countries which have the required technical infrastructure. This would include aspects of biotechnologies, computing and communications, new materials;

(d) Improving the management of scientific research and development and its commercial utilization, including the proper use of pilot plants;

(e) Strengthening the establishment and use of relevant scientific and technological information systems, together with information policy.

42. In addressing the above themes, emphasis would be on "hand-on" practical training programmes or through technical workshops, both preferably in the developing countries themselves, with UNDP supplementing inputs. (In this context, it should be noted that of the 3,500 persons trained under the Financing System, fully two thirds went to other developing countries in a true manifestation of technical co-operation among developing countries (TCDC).

43. Training in various aspects of energy constitutes an important need. The training programmes currently initiated, such as the exploitation of geothermal resources (New Zealand) and coal resources (Australia), should be continued. Developing internal capacities for energy sector planning and the ability to deal with new and renewable sources of energy systems in this context is particularly crucial, considering the pace at which these new technologies are coming into use.

44. This strengthening of human resources in technology could be focused on such priority sectors as technologies of food processing; health and nutrition; renewable energy and productivity/quality in the industrial and agricultural sectors.

45. In considering these possibilities, the special needs and situations of the least developed countries would be given priority attention. This important consideration would be facilitated by the open allocation principle followed by both the Fund and the Energy Account, i.e., there is no pre-determination or designation of resources on a geographic or country basis.

#### IV. CO-ORDINATION - COLLABORATION

##### A. With other United Nations organizations

46. As requested, the Administrator, together with the Director-General for Development and International Economic Co-operation are developing a basis for close working relationships between the Fund and the Centre for Science and Technology for Development (CSTD) on programmatic and substantive matters. The importance of achieving effective collaboration between CSTD and the Fund is recognized and careful thought is being given to ways and means to maximize the complementarity of their specific capacities and mandates so as to strengthen their respective outputs.

47. Co-operative arrangements with other agencies and organizations of the United Nations system will continue both through bilateral working arrangements and through the co-ordinative mechanism of the Administrative Committee on Co-ordination (ACC) Task Force on Science and Technology for Development.

48. On energy matters, the working relationships already established with the World Bank and other United Nations organizations, including the Office of the Director-General and the Inter-Agency Working Group on New and Renewable Sources of Energy, will be continued on the implementation of the Nairobi Programme of Action on New and Renewable Sources of Energy.

B. With other scientific and technical bodies

49. As indicated above, UNFSTD is establishing an active network of contacts and scientific technical sources in both developed and developing countries. This will be based on arrangements recognizing mutual interest between the Fund and counterpart institutions, such as research institutes and laboratories, professional and technical societies and private sources of scientific and technical knowledge. This would include co-operation on research topics, for instance, on the application of emerging technologies to upgrade traditional practices, and active collaboration designed to increase technical capacities to improve productivity and quality in industrial and agricultural activities.

V. CONCLUSION

50. The decision to place UNFSTD organically within the UNDP structure and to merge activities of the Energy Account with it provides the opportunity to improve programme impact, to achieve operational economies and to widen the resource base. This is a difficult challenge which also holds potentially significant benefits for UNDP and the developing countries it serves.

Notes

1/ See also document DP/1987/53 - dealing with this subject.

Annex I

UNITED NATIONS FINANCING SYSTEM FOR SCIENCE AND TECHNOLOGY FOR DEVELOPMENT  
RESOURCE AVAILABILITY AND UTILIZATION

Table 1. Consolidation of core and non-core resources  
(in millions of US dollars)

	ACTUAL		ESTIMATED		
	1984	1985	1986	1987	1988
<b>I. Availability of resources</b>					
Balance as at 1 January	14.74	12.97	8.21	6.62	3.72
Additional resources received					
Voluntary contributions	0.35	0.30	0.89	1.50	4.00
Cost-sharing contributions	0.01	0.06	0.06	0.13	0.07
Sub-trust funds contributions	4.74	2.67	5.90	6.00	4.00
Extrabudgetary contributions	0.00	0.00	0.20	0.00	0.00
Interest and other income	1.20	0.58	0.51	0.36	0.38
	6.30	3.61	7.56	7.99	8.45
<b>TOTAL</b>	<b>21.04</b>	<b>16.58</b>	<b>15.77</b>	<b>14.61</b>	<b>12.17</b>
<b>II. Utilization of resources</b>					
Project expenditure	6.15	6.46	7.90	9.42	6.62
Reimbursement of agency support costs	0.43	0.44	0.31	0.47	0.35
Programme support and administrative costs	1.49	1.47	0.94	0.90	1.02
Extrabudgetary expenditure	0.00	0.00	0.00	0.10	0.10
<b>TOTAL</b>	<b>8.07</b>	<b>8.37</b>	<b>9.15</b>	<b>10.89</b>	<b>8.09</b>
<b>III. Balance of resources as at 31 December</b>					
Core resources <u>a/</u>	9.13	6.01	3.95	1.71	2.36
Non-core resources <u>b/</u>	3.84	2.20	2.67	2.01	1.72
<b>TOTAL</b>	<b>12.97</b>	<b>8.21</b>	<b>6.62</b>	<b>3.72</b>	<b>4.08</b>
<b>IV. Resources available for further programming</b>					
Total resources as at 31 December (as in III above)	12.97	8.21	6.62	3.72	4.08
Less: Unspent project allocations	12.42	17.82	13.59	4.94	3.04
Balance available as at 31 December <u>c/</u>	0.55	(9.61)	(6.97) <u>d/</u>	(1.22)	1.04 <u>e/</u>

a/ For activities financed from voluntary contributions.

b/ For activities financed from sub-trust fund, cost-sharing, and extrabudgetary contributions.

c/ Please see annex II, table 3 - "contributions receivable".

d/ Including non-convertible currencies amounting to \$0.14 million as at 31 December 1986.

e/ Interest income on sub-trust funds included in the balance of resources and to be used for project activities in consultation with trust fund donors.

Table 2. Core resources  
 (in millions of US dollars)

	ACTUAL		ESTIMATED		
	1984	1985	1986	1987	1988
<b>I. <u>Availability of resources</u></b>					
Balance as at 1 January	14.31	9.13	6.01	3.95	1.71
Additional resources received					
Voluntary contributions	0.35	0.30	0.89	1.50	4.00
Interest and other income	1.16	0.31	0.35	0.16	0.20
	<u>1.51</u>	<u>0.61</u>	<u>1.24</u>	<u>1.66</u>	<u>4.20</u>
TOTAL	<u>15.82</u>	<u>9.74</u>	<u>7.25</u>	<u>5.61</u>	<u>5.91</u>
<b>II. <u>Utilization of resources</u></b>					
Project expenditure	4.91	2.45	2.50	3.00	2.50
Reimbursement of agency support costs	0.30	0.26	0.10	0.15	0.15
Programme support and administrative costs	1.48	1.02	0.70	0.75	0.90
TOTAL	<u>6.69</u>	<u>3.73</u>	<u>3.30</u>	<u>3.90</u>	<u>3.55</u>
<b>III. <u>Balance of resources as at 31 December a/</u></b>					
	<u>9.13</u>	<u>6.01</u>	<u>3.95</u>	<u>1.71</u>	<u>2.36</u>
TOTAL	<u>9.13</u>	<u>6.01</u>	<u>3.95</u>	<u>1.71</u>	<u>2.36</u>
<b>IV. <u>Resources available for further programming</u></b>					
Total resources as at 31 December (as in III above)	9.13	6.01	3.95	1.71	2.36
Less: Unspent project allocations	6.20	6.24	3.40	1.05	1.50
Balance available as at 31 December	<u>2.93</u>	<u>(0.23)</u>	<u>0.55 b/</u>	<u>0.66</u>	<u>0.86</u>

a/ For activities financed from voluntary contributions.

b/ Including non-convertible currencies amounting to \$0.14 million as at 31 December 1986.



Table 3. Non-core resources  
(in millions of US dollars)

	ACTUAL		ESTIMATED		
	1984	1985	1986	1987	1988
<b>I. <u>Availability of resources</u></b>					
Balance as at 1 January	0.43	3.84	2.20	2.67	2.01
Additional resources received					
Sub-trust funds contributions	4.74	2.67	5.90	6.00	4.00
Extrabudgetary contributions	0.00	0.00	0.20	0.00	0.00
Cost-sharing contributions	0.01	0.06	0.06	0.13	0.07
Interest and other income	0.04	0.27	0.16	0.20	0.18
	<u>4.79</u>	<u>3.00</u>	<u>6.32</u>	<u>6.33</u>	<u>4.25</u>
<b>TOTAL</b>	<u>5.22</u>	<u>6.84</u>	<u>8.52</u>	<u>9.00</u>	<u>6.26</u>
<b>II. <u>Utilization of resources</u></b>					
Project expenditure	1.24	4.01	5.40	6.42	4.12
Reimbursement of agency support costs	0.13	0.18	0.21	0.32	0.20
Programme support and administrative costs	0.01	0.45	0.24	0.15	0.12
Extrabudgetary expenditure	0.00	0.00	0.00	0.10	0.10
	<u>1.38</u>	<u>4.64</u>	<u>5.85</u>	<u>6.99</u>	<u>4.54</u>
<b>TOTAL</b>	<u>1.38</u>	<u>4.64</u>	<u>5.85</u>	<u>6.99</u>	<u>4.54</u>
<b>III. <u>Balance of resources as at 31 December</u></b>					
Sub-trust funds	3.84	2.20	2.42	1.85	1.72
Extrabudgetary	0.00	0.00	0.20	0.10	0.00
Cost-sharing	0.00	0.00	0.05	0.06	0.00
	<u>3.84</u>	<u>2.20</u>	<u>2.67</u>	<u>2.01</u>	<u>1.72</u>
<b>TOTAL</b>	<u>3.84</u>	<u>2.20</u>	<u>2.67</u>	<u>2.01</u>	<u>1.72</u>
<b>IV. <u>Resources available for further programming</u></b>					
Resources as at 31 December (as in III above)	3.84	2.20	2.67	2.01	1.72
Less: Unspent project allocations	6.22	11.58	10.19	3.89	1.54
Balance available as at 31 December	<u>(2.38)</u>	<u>(9.38)</u>	<u>(7.52)</u>	<u>(1.88)</u>	<u>0.18 a/</u>
<b>V. <u>Contributions receivable</u></b>					
Prior and current years	0.03	5.59	2.90	2.50	0.40
Future years	6.91	6.15	3.11	0.55	0.75
	<u>6.94</u>	<u>11.74</u>	<u>6.01 b/</u>	<u>3.05</u>	<u>1.15</u>
<b>TOTAL</b>	<u>6.94</u>	<u>11.74</u>	<u>6.01 b/</u>	<u>3.05</u>	<u>1.15</u>

a/ Interest earnings included in the balance of resources and to be used for project activities in consultation with trust fund donors.

b/ An additional \$2.5 million of contributions will be receivable as soon as the agreements are formally signed by the donor Government.

Annex II

## UNFSTD ONGOING PROJECTS

Country projects

<u>Africa</u>		<u>\$US</u>
Cape Verde	Structuration de l'Institut National (CVI/82/T01)	10 000
Ethiopia	Development of Capacity in Remote Sensing (ETH/84/T01)	53 000
	Planning and Managing Science and Technology for Development (ETH/85/T01)	30 000
Ivory Coast	Medical Research on Maemostasis in Black Africans (IVC/81/T01)	24 000
Madagascar	Centre for Oceanographic Research (MAG/81/T01)	50 000
Mauritius	Wind Power Evaluation (MAR/81/T01)	7 000
Senegal	Senegalese Institute for Agricultural Research (SEN/80/T01)	170 000
Seychelles	New and Renewable Energy Project (SEY/81/T01)	30 000
Zambia	Upgrading of Pre-University Science Training (ZAM/81/T01)	77 000
<u>Arab States</u>		
Yemen Arab Republic	Establishment of an Oceanographic Institute (YEM/84/T01)	250 000
<u>Asia and the Pacific</u>		
Banladesh	Strengthening of the Research Laboratory in Chittagong (BGD/81/T01)	50 000
China	Beijing National Food Technology (CPR/84/T01)	1 800 000
	Computer-based Management Training Programme (CPR/84/T02)	591 000
Indonesia	Appropriate Technology for Rural Communities - Phase 2 (INS/83/T01)	480 000
Maldives	Strengthening National Planning Capabilities in Science and Technology (MDV/82/T01)	30 000

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<u>Latin America</u>		<u>\$US</u>
Bolivia	Assistance to the Instituto Minero Metallurgico (BOL/82/T01)	10 000
Brazil	Optimization and Development of Carbon Fiber Technology (BRA/81/T01)	20 000
Costa Rica	Reconnaissance and Exploration for Geothermal Resources (COS/83/T01)	1 817 000
Uruguay	Inactivacion des Virus de Fibre Aftosa en Carne (URU/81/T01)	160 000
 <u>Regional projects</u>		
Africa	Lagos Plan of Action in the Area of Science and Technology (RAF/81/T02)	69 000
Asia and Pacific	Strengthening Computer Faculty at Asian Institute of Technology (RAS/85/T01)	2 383 000
Latin America	Sistema Andino de Informacion Technological (RLA/81/T01)	170 000
	Regional Non-Destructive Testing Network (RLA/84/T01)	220 000
 <u>Interregional projects</u>		
	Agricultural Information Systems (INT/81/T01)	26 000
	Technological Information Pilot System (INT/83/T01)	3 430 000
		<u>11 957 000</u>

Annex III

PROJECTS APPROVED IN 1986

UNFSSTD contributions

<u>Recipient country/Project title</u>		<u>Recipient Government contribution</u> \$	<u>Financed from general resources</u> \$	<u>Financed from other resources</u> <u>Amount</u> \$	<u>Donor</u>	<u>Total project value</u> \$
Yemen	Establishment of an Oceanographic Institute	330 550	13 000	261 600 <u>a/</u>	OPEC	274 600
Ethiopia	Planning and Managing Science and Technology for Development	<u>27 240</u>	<u>10 000</u>	<u>90 000</u> <u>a/</u>	UNDP	<u>100 000</u>
<b>TOTALS</b>		<u><u>357 790</u></u>	<u><u>23 000</u></u>	<u><u>351 600</u></u>		<u><u>374 000</u></u>

a/ Cost-sharing contribution.

Annex IV

UNFSSD CONTRIBUTIONS RECEIVED IN 1986

Table 1. Voluntary contributions

Donor	For 1986 and prior years				
	Balance	Additions	Collected	Balance	Pledges
	31 December 1985	and adjustments		31 December 1986	for 1987
	\$	\$	\$	\$	\$
Algeria	100 000	-	-	100 000	-
China	-	-	-	-	250 000
Cuba	25 000	-	-	25 000	-
Ecuador	30 000	-	-	30 000	-
Ethiopia	-	60 000	-	60 000	-
India	100 000	-	-	100 000	-
Indonesia	15 000	-	15 000	-	15 000
Kenya	236 964	(452)	49 012	187 500	49 080
Netherlands	-	688 889	688 889	-	-
Pakistan	55 831	52 238	54 878	53 191	53 191
Republic of Korea	30 000	-	30 000	-	30 000
Sudan	10 000	-	-	10 000	-
Sweden	-	-	-	-	300 000
Thailand	-	10 000	10 000	-	-
Yugoslavia	-	-	-	-	25 000
Zambia	862	13 940	7 576	7 226	-
Other contributions	68 071	18 551	41 661	44 961 a/	30 174 b/
<b>TOTAL</b>	<b>671 728</b>	<b>843 166</b>	<b>897 016</b>	<b>617 878</b>	<b>752 445</b>

a/ Contributions from: Bangladesh, Congo, Guyana, Jamaica, Malawi, Panama, Paraguay, Senegal, Seychelles, Sierra Leone, Somalia, Tunisia, Turkey, Zaire, Lesotho, Sri Lanka, United Republic of Tanzania.

b/ Contributions from: Bangladesh, Bhutan, Cyprus, Fiji, Laos, Lesotho, Madagascar, Mongolia, Panama, Philippines, Senegal, Zaire, Paraguay, Sri Lanka, United Republic of Tanzania, Zimbabwe.

Table 2. Cost-sharing, sub-trust fund and other contributions

	<u>Donor</u>	<u>Contributions received in 1986</u>	<u>Due in 1987 and future years</u>
<u>Cost-sharing contributions</u>	OPEC	<u>56 600</u>	<u>204 800 a/</u>
		<u>56 600</u>	<u>204 800</u>
<u>Sub-trust fund contributions</u>	Italy	3 792 400	3 122 400 a/
	Norway	<u>2 105 490</u>	<u>2 685 910</u>
		<u>5 897 896</u>	<u>5 808 310</u>
<u>Other contributions</u>	Netherlands	<u>200 000</u>	<u>-</u>
		<u>200 000</u>	<u>-</u>
<b>TOTAL</b>		<u>6 154 490</u>	<u>6 013 110</u>

a/ Includes contributions due for 1986.

Annex V

RESOURCE AVAILABILITY AND UTILIZATION OF THE ENERGY ACCOUNT

(in millions of US dollars)

	ACTUAL			ESTIMATED	
	1983	1984	1985	1986	1987
<u>I. Availability of resources</u>					
Balance as at 1 January	3.787	5.778	6.649	4.327	3.221
Additional resources received -					
Voluntary contributions	0.841	0.073	0.040	0.039	0.081
Cost-sharing contributions	4.008	3.665	1.730	4.200	2.228
Interest and other income	0.316	0.695	0.480	0.270	0.250
	<u>5.165</u>	<u>4.433</u>	<u>2.250</u>	<u>4.509</u>	<u>2.559</u>
TOTAL	<u>8.952</u>	<u>10.211</u>	<u>8.899</u>	<u>8.836</u>	<u>5.780</u>
<u>II. Utilization of resources</u>					
Project expenditure	3.094	3.438	4.333	5.300	3.000
Reimbursement of agency support costs	0.040	0.054	0.081	0.095	0.054
Programme support and administrative costs	0.040	0.070	0.158	0.220	0.200
	<u>3.174</u>	<u>3.562</u>	<u>4.572</u>	<u>5.615</u>	<u>3.254</u>
TOTAL	<u>3.174</u>	<u>3.562</u>	<u>4.572</u>	<u>5.615</u>	<u>3.254</u>
<u>III. Balance of resources as at 31 December</u>					
Balance of voluntary and cost-sharing contributions	5.778	6.649	4.327	3.221	2.526
	<u>5.778</u>	<u>6.649</u>	<u>4.327</u>	<u>3.221</u>	<u>2.526</u>
TOTAL	<u>5.778</u>	<u>6.649</u>	<u>4.327</u>	<u>3.221</u>	<u>2.526</u>
<u>IV. Resources available for further programming</u>					
General resources as at 31 December (as in III above)	5.778	6.649	4.327	3.221	2.526
Less: Unspent project allocations	1.529	6.985	5.590	5.298	2.244
	<u>4.249</u>	<u>(0.336)<sub>a/</sub></u>	<u>(1.263)<sub>a/</sub></u>	<u>(2.077)<sub>a/</sub></u>	<u>0.282</u>
Balance available as at 31 December	<u>4.249</u>	<u>(0.336)<sub>a/</sub></u>	<u>(1.263)<sub>a/</sub></u>	<u>(2.077)<sub>a/</sub></u>	<u>0.282</u>

a/ Allocations to be met from cost-sharing contributions pledged but not yet paid.

Annex VI

## ONGOING PROJECTS APPROVED FROM THE ENERGY ACCOUNT

<u>Project title</u>	<u>Project number</u>	<u>Energy account contribution</u> (In US dollars)
A. <u>National projects</u>		
<u>Africa</u>		
Zambia - Wood Energy Consumption Resource Survey	ZAM/82/E08	392 000
<u>Arab States</u>		
Djibouti - Geothermal Exploration	DJI/84/E04	999 888
<u>Asia</u>		
Viet Nam - Offshore Technical School, Ba Ria	VIE/83/E03	1 500 000
Solomon Islands - Energy Planner	SOI/84/E02	47 600
Tonga - Energy Planner	TON/84/E02	58 600
Fiji - Mini-hydro Study - Somo-Somo	FIJ/86/E01	142 041
<u>Latin America</u>		
Colombia - Management Programme and Control of Hydroelectric Projects	COL/82/E38	774 950
Dominican Republic - Rio Ocoa Hydro-Electric Power Development	DOM/85/E01	500 000



<u>Project title</u>	<u>Project number</u>	<u>Energy account contribution</u> (In US dollars)
<u>B. Interregional projects</u>		
Workshop on Mini-Hydro Power Development, Austria	INT/85/E02	71 000
International Training Programmes in Coal Technology, Australia	INT/85/E03	220 688
Monitoring of Biomass Gasifiers - Phase II	INT/86/E03	528 433
<u>C. Global projects</u>		
UNDP/UNITAR Centre on Small Energy Resources	GLO/85/E01	521 500
Global Wind Evaluation Programme	GLO/86/E01	235 000
UNITAR/UNDP Information Centre for Heavy Crude and Tar Sands - Phase III	GLO/86/E02	572 840
		<u>6 564 540</u> a/

a/ In addition, the Energy Office co-manages, with the Division for Global and Interregional Projects, the Energy Sector Management Assistance Programme for approximately \$9.0 million.

## ENERGY ACCOUNT: APPROVED PROJECTS IN 1986

(in US dollars)

Recipient country/Project Title	Recipient Government contribution	Financed from general resources	Contributions				Total project value
			Financed from other sources		Other contributions		
			Cost-sharing contributions	Donor	Amount	Source	
	\$	\$	\$		\$	\$	\$
<u>Arab States</u>							
Sudan - Forestry/Fuelwood Pre-Investment Study - SUD/86/E01	-	-	73 418 87 379 51 210	Denmark Finland Netherlands	-	-	212 007
<u>Asia</u>							
Fiji - Mini-Hydro Feasibility Study - Somo-Somo - FIJ/86/E01	4 425	52 041	90 000	OPEC	-	-	146 466
Vanuatu - Energy Planner - VAN/86/E01	-	35 000	-		2 000	JPF	37 000
<u>Interregional</u>							
Energy Sector Management Assistance Programme - INT/85/E05	-	-	2 023 765	Denmark Netherlands Sweden Switzerland United Kingdom	-	-	2 023 765 a/
International Training Programme in Coal Technology - INT/85/E03	-	220 688	419 857	Australian organizations	75 600 182 000	ADAB RBAP	898 145
Monitoring of Biomass Gasifiers - Phase II - INT/86/E03	-	50 000	100 000 218 433 60 000 100 000	Belgium EEC OPEC Fund Netherlands			528 433
<u>Global</u>							
Global Wind Evaluation Programme - GLO/86/E01	-	48 240	51 760 60 000 75 000	EEC OPEC Fund Netherlands			235 000
<b>Total</b>	<b>4 425</b>	<b>405 969</b>	<b>3 410 822</b>		<b>259 600</b>	<b>-</b>	<b>4 080 816</b>

a/ Represents approvals only in 1986. Total approvals since 1983 amounted to \$8,515,053.

Annex VIII

ENERGY ACCOUNT: CONTRIBUTIONS RECEIVED IN 1986

(in US dollars)

A. Voluntary contributions

Donor	For 1986 and prior years				Pledges for 1987
	Balance 31 December 1985	Additions and adjustments	collected	Balance 31 December 1986	
	\$	\$	\$	\$	\$
Austria	56 497	13 926	-	70 423	-
New Zealand	-	38 990	38 990	-	-
<b>Total</b>	<b>56 497</b>	<b>52 916</b>	<b>38 990</b>	<b>70 423</b>	<b>-</b>

B. Cost-sharing

<u>Donor</u>	<u>Contributions received 1986</u>	<u>Due in 1987 and future years</u>
	\$	\$
<u>Countries and intergovernmental bodies</u>		
Belgium	100 000	-
Denmark	310 976	238 049
EEC	51 60	219 558
Finland	87 476	-
Japan	-	-
Netherlands	1 415 272	15 556
Norway	761 017	-
OPEC Fund	11 008	1 498 605
Sweden	270 882	-
Switzerland	537 634	-

<u>Donor</u>	<u>Contributions received 1986</u> \$	<u>Due in 1987 and future years</u> \$
United Kingdom	373 134	-
UNITAR	-	495 000
Subtotal	<u>3 919 159</u>	<u>2 466 768</u>
<u>Others</u>		
Membership Contributions	<u>280 380</u>	-
Subtotal	<u>280 380</u>	-
Total	<u>4 199 539</u>	<u>2 466 768</u>

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