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PROPOSED PROGRAMME BUDGET FOR THE BIENNIUM 1980-1981

JOINT INSPECTION UNIT

Establishment of the Information Systems Unit in the Department of International Economic and Social Affairs

Report of the Secretary-General

### SUMMARY

This document has been prepared in response to General Assembly resolution 33/116 A, in section II of which the Secretary-General was requested to report to the Assembly, at its thirty-fourth session, on the results of the two-year operation of the Information Systems Unit established in the Department of International Economic and Social Affairs.

The present report describes the role of information dissemination activities for the effective carrying out of United Nations programmes for economic and social development. The report outlines the activities of the Unit during its two-year pilot operation, principally (a) establishment of the minicomputer-based Development Information System to provide to the staff of the United Nations, to technical experts in the field, to regional commissions and to Member Governments a current awareness service and on-line access to a data base containing references to unpublished material produced by and for the Department;

<sup>\*</sup> A/34/150.

and (b) the establishment and maintenance of co-operative links with other substantive divisions of the United Nations and other organizations involved in activities relating to information for economic and social development.

The report refers to the study made by the Joint Inspection Unit (JIU), which recommended (a) that the pilot phase be extended for a further year in order to test the usefulness of the system and (b) that the Assembly make a final decision on the future of the Unit in 1980. The Secretary-General supports these recommendations, subject to the availability of extrabudgetary funds to ensure successful continuation of the project. Accordingly, should the General Assembly approve the above summarized proposals, there would be no financial implications for the regular budget in 1980.

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#### ABBREVIATIONS AND ACRONYMS

ACABQ Advisory Committee on Administrative and Budgetary Questions

AGRIS International Information System for Agricultural Sciences and Technology (FAO)

ARKISYST Architectural Information System (UNESCO)

CDPPP Centre for Development Planning, Projections and Policies

CEPAL Comisión Económica para América Latina (Economic Commission for Latin America, Santiago)

CLADES Centro Latinoamericano de Documentación Económica y Social (Latin American Centre for Economic and Social Documentation, Santiago)

CPC Committee for Programme and Co-ordination

CSDHA Centre for Social Development and Humanitarian Affairs

DEVSIS Development Sciences Information System

DIS Development Information System (United Nations)

ECA Economic Commission for Africa (Addis Ababa)

ECWA Economic Commission for Western Asia (Beirut)

EDPIS Electronic Data Processing and Information Systems Services

ESCAP Economic and Social Commission for Asia and the Pacific (Bangkok)

FAO Food and Agriculture Organization of the United Nations (Rome )

IAEA International Atomic Energy Agency (Vienna)

IDRC International Development Research Centre (Ottawa)

IESA Department of International Economic and Social Affairs

ILO International Labour Organization (Geneva)

INFOTERRA International Referral System for Sources of Environmental Information (UNEP)

INIS International Nuclear Information System (IAEA)

INRES Information Referral System (UNDP)

INTIB Industrial Technological Data Bank (UNIDO)

IOB Inter-Organization Board for Information Systems (Geneva)

ISB Information Systems Board

ISIS Integrated Set of Information Systems

ISO International Organization for Standardization (Geneva)

ISU Information Systems Unit

JIU Joint Inspection Unit

LABORDOC Data base of ILO Central Library and Documentation Branch

MACTIS Marine and Coastal Technology Information Service (UN/IESA)

MINISIS Minicomputer Software Package developed by IDRC

OECD Organization for Economic Co-operation and Development

OETO Ocean Economics and Technology Office

OST Office for Science and Technology

POPIN Population Information Network (United Nations)

SPINES Science and Technology Policies Information Exchange System (UNESCO)

TCD Department of Technical Co-operation for Development

UNBIS United Nations Bibliographic Information System (United Nations)

UNDP United Nations Development Programme (New York)

UNEP United Nations Environment Programme (Nairobi)

UNESCO United Nations Educational, Scientific and Cultural Organization

(Paris)

UNIDO United Nations Industrial Development Organization (Vienna)

UNISIST Programme of International Co-operation in Scientific and

Technical Information (UNESCO)

#### I. BACKGROUND

- 1. This report has been prepared in response to General Assembly resolution 33/116 A, section II, requesting the Secretary-General to submit to the General Assembly, at its thirty-fourth session, a report on the results of the two-year operation of the Information Systems Unit (ISU). 1/ In preparing the report, the Secretary-General was requested to take into account (a) the conclusions and recommendations of the Committee for Programme Co-ordination (CPC), the Joint Inspection Unit (JIU) and the Advisory Committee on Administrative and Budgetary Questions (ACABQ) contained in paragraphs 8 and 9 of document A/33/7/Add.2, and the results of a review of the operation by the Information Systems Board (ISB); (b) a detailed breakdown of the estimated start-up and operation costs of the Secretary-General's proposals; (c) utility of the information to actual and potential users of the system; and (d) the extent of compatibility and co-ordination achieved with the United Nations Bibliographic Information System (UNBIS), as well as with relevant information systems of other United Nations organizations.
- 2. The establishment of the Unit was initially proposed in recognition of a need to improve the utilization of substantive information generated and collected for the United Nations. The wealth of knowledge and experience stored in unpublished documents produced for the United Nations cannot be fully utilized if there is no mechanism for its rapid retrieval and wide dissemination. Also, the lack of such a mechanism increases the risk that research will be duplicated due to unawareness of the existence of previous related research reports.
- 3. Furthermore, the proposed unit was to provide guidance and assistance concerning information systems to various units of the former Department of Economic and Social Affairs, which, until the restructuring exercise, included the Office of Technical Co-operation, now the Department of Technical Co-operation for Development. The unit could then provide internal co-ordination of activities relating to information systems and services resulting from the demand by Governments for wider exchange and dissemination of substantive information essential for international development. These activities include numerous information-systems-related programmes, such as the Population Information Network (POPIN) and the Marine and Coastal Technology Information Service (MACTIS).
- 4. The unit could also act as a departmental focal point for developing closer working relationships with relevant substantive information systems established within the United Nations.

<sup>1/</sup> Formerly called Information Services Unit

- 5. The establishment of ISU was first proposed by the Secretary-General before CPC at its sixteenth session in 1976 as a part of the medium-term plan for 1978-1981 under "Interdivisional subprogramme 2: information systems". The cost of operating the unit was expected to be included in the regular budget after the conclusion of its pilot operation in 1979.
- 6. CPC "found the idea contained in this subprogramme an interesting one, but felt that further information was necessary before the establishment, on a permanent basis, of a system for the storage and retrieval of the Department's documentation could be considered". 2/
- 7. In responding to the Committee's request for more information, the Secretary-General prepared a report (A/C.5/31/69), including a work programme and details of financial requirements for the proposed three-year period for consideration by the General Assembly during its thirty-first session. The proposal suggested that the programme was to be financed from extrabudgetary resources for 1977, 1978 and 1979 and from the regular budget of the United Nations beginning with the biennium 1980-1981.
- 8. However, consideration of the report was postponed until the thirty-second session of the General Assembly, during which the reports of ACABQ (A/32/256 and A/32/256/Add.1), together with the Secretary-General's note (A/C.5/32/47), which contained the revised and updated proposal, were considered.
- 9. The recommendation for establishment of the Information Services Unit in the Department of Economic and Social Affairs was endorsed on 21 December 1977 in General Assembly resolution 32/212, "Questions relating to the programme budget for the biennium 1978-1979", section V, in which the Assembly also requested a progress report on the work carried out in 1978 by the unit so that it could decide whether a computer might be utilized by the Unit in 1979.
- 10. In section II of resolution 33/116 A, the General Assembly, at its thirty-third session, authorized the use of a computer following its consideration of the Secretary-General's progress report of the pilot operation of the Unit (A/C.5/33/4).
- 11. At its 540th meeting on 12 September 1978, CPC considered the Development Information Services in connexion with the medium-term plan for the period 1980-1983 and noted that, although continuation of the Development Information System (DIS) of IESA was contingent upon a decision by the General Assembly in 1979, its activities and those of TCD, involving the editing and dissemination of technical co-operation project reports, were mutually complementary and should be co-ordinated or integrated. 3/

<sup>2/</sup> Official Records of the General Assembly, Thirty-first Session, Supplement No. 38 (A/31/38), para. 102.

<sup>3/</sup> Official Records of the General Assembly, Thirty-third Session, Supplement No. 38 (A/33/38), para. 671.

#### II. ROLE OF INFORMATION SYSTEMS FOR INTERNATIONAL DEVELOPMENT

- 12. International bodies are becoming increasingly aware of the importance of facilitating access to substantive information necessary for international development programmes. This awareness has lead to the establishment of and continued support of such international information systems as AGRIS and INIS. Following the success of these systems and recognizing the need to fill existing gaps in various areas relevant to international development, Governments have requested that the United Nations provide sectoral information systems and services dealing with population, ocean economics, transnational corporations, environment, human settlements, natural resources and science and technology, among others.
- 13. These requests have resulted in the establishment of various complementary information systems and services, such as the International Referral System for Sources of Environmental Information (INFOTERRA), the Information Referral System (INRES), the Population Information Network (POPIN) and the Industrial Technological Data Bank (INTIB).
- 14 Such activities reflect the priority that Member Governments have placed on improving their capability to access and use of the information generated and stored by international organizations. Although it would appear that information systems and services are proliferating, each meets the unique information needs of its user group. Their development within the interorganizational co-ordinating mechanism of the United Nations is intended to avoid unnecessary duplication and to ensure that related systems and services are complementary.
- 15. Governments have also expressed the need for accelerating international exchange and dissemination of information at various international conferences that they have sponsored in recent years. The programme for the exchange and dissemination of information was one of the priority areas recommended at Habitat: United Nations Conference on Human Settlements as well as at the United Nations Conference on Technical Co-operation among Developing Countries. Exchange of scientific and technological information was one of the priority areas considered at the United Nations Conference on Science and Technology for Development.
- 16. In addition to their involvement in international information exchange and dissemination activities, organizations are also becoming aware of the need to streamline their internal mechanisms to make better use of the documentation they collect and generate, for without a means to recall and use their own internal memories, these organizations cannot hope to be effective in carrying out their programmes. Examples of such efforts can be seen in the Integrated Systems Improvement Project (ISIP) of UNDP and DIS.
- 17. A free exchange of experience and knowledge among international organizations and their member States is extremely important for the success

of international development programmes. However, unless each organization and Government develops a capacity to know what it has produced and to make use of it effectively, it cannot make a meaningful contribution to such exchange.

18. It was within that context that the establishment of ISU for the Department was initially proposed.

## III. ACTIVITIES UNDERTAKEN DURING THE PILOT PHASE

- 19. ISU was established in mid-March of 1978 in the Office of the Under-Secretary-General of the Department of Economic and Social Affairs and later transferred to the Office of the Assistant Secretary-General for Programme Planning and Co-ordination in the Department of International Economic and Social Affairs in the course of the restructuring exercise. The present report describes the activities undertaken during the 19-month period, from the establishment of the Unit until early August of 1979.
- 20. Also included in the report is a description of the work to be carried out during the remaining months until 31 December 1979, when the pilot phase of the project is expected to be concluded. As indicated in the phased work plan for 1978-1979, included in annex I of this report, the activities of the Unit have been concentrated in two areas: (a) the establishment of a document referencing system, i.e., DIS 4/ and (b) co-ordination and co-operation with substantive units involved in information analysis and dissemination activities.

## 1. Establishment and utilization of DIS

- 21. In establishing DIS, special attention was paid to four areas which affect the economics of the system, namely (a) compatibility with information systems relevant to the interests of the users of DIS, (b) cost of computer utilization, (c) appropriateness of the system in the international development environment and (d) application of readily available system components that have already been proved to be efficient and dependable.
- 22. Since numerous information systems similar in aim, though not in content, to DIS are already in operation in many organizations both within and outside the United Nations family, an effort has also been made to utilize the knowledge already acquired by others and to learn from their mistakes and achievements.

<sup>4/</sup> Approved by ISB on 23 June 1977.

- 23. Particularly relevant was Development Sciences Information System (DEVSIS), the design of which was laid out by a team of international experts who determined the data elements required for such an information system and the method by which such elements should be handled. 5/
- 24. Additionally, in order to observe consistency within the United Nations family and achieve compatibility with relevant systems, international guidelines and standards, such as the UNISIST Reference Manual for machine-readable bibliographic descriptions and ISO standards for geographical coding were adopted whenever they were available.

## (a) Collection of documents

- 25. When the Unit was first established in early 1978, the Department was still undergoing the restructuring process, and its organizational set—up was not fully defined. Therefore, five organizational units of IESA which were likely to remain in the Department the Centre for Social Development and Humanitarian Affairs, the Population Division, Ocean Economics and Technology Office, Office for Science and Technology, and the Centre for Development Planning, Policies and Projections were asked to conduct a preliminary inventory of their holdings by searching their files for information considered to be of value to technical experts in the field, economic commissions, Member States and the staff of the Department. The information thus selected was contained mostly in technical papers, studies, mission reports and project reports. The types of material selected were basically surveys, original research, methodological studies, analysis of conditions and trends, and commentaries, all of which had been produced at considerable expense to the organization and were not easily found elsewhere.
- 26. Published documents, such as those of the General Assembly and Economic and Social Council, were excluded, as access to them would be provided by the Dag Hammarskjold Library through its United Nations Bibliographic Information System (UNBIS). For the pilot system, neither the length of the document nor the quality of writing was used as the criterion for exclusion. Provision of timely access to the unpublished and difficult-to-locate materials generated within the former Department of Economic and Social Affairs was considered the primary objective of the system.
- 27. In early 1979, all IESA units, as well as the Department of Technical Co-operation for Development, were invited to participate in the collection of materials suitable for inclusion in the system. Approximately 4,000 items selected in this manner are expected to be computerized by the end of 1979, when the two-year pilot phase of the operation is concluded.

<sup>5/</sup> DEVSIS: The Preliminary Design of an International Information System for the Development Sciences, prepared by the DEVSIS Study Team on behalf of its sponsors: IDRC, ILO, OECD, UNDP, UNESCO and the United Nations.

## (b) Preparation of a thesaurus of indexing terms

- 28. Since a thesaurus of retrieval terms is one of the key elements in ensuring effectiveness of a system and compatibility among relevant information storage and retrieval systems, a large amount of effort and expense is often spent in thesaurus compilation. For this reason, the decision was made not to create a new thesaurus for DIS to index its material but to use the Macrothesaurus: A Basic List of Economic and Social Development Terms, developed by OECD and widely used by organizations within and outside the United Nations family. 6/
- 29. The decision was also based on a review of the contents of approximately 1,000 documents selected for the system which revealed that terms found in the Macrothesaurus were appropriate for indexing literature produced for the United Nations. Moreover, gaps in coverage were identified and submitted for inclusion in the revised version of the Macrothesaurus prepared and published early in 1979 by OECD with the collaboration of CLADES, ILO, UNIDO and UNDP, among others. As a result, the retrieval terms used for DIS are now compatible with all the systems established by users of the Macrothesaurus, such as the ILO LABORDOC and the UNDP INRES.
- 30. An additional advantage of the <u>Macrothesaurus</u> is that it is designed to be a multilingual thesaurus and is already useful for indexing in four official languages of the United Nations English, French, Spanish and Arabic a distinct advantage for a system intended to serve all States Members of the United Nations.

## (c) Systems adaptation and implementation

- 31. Rather than designing a completely new format for DIS, existing systems were examined. The design of DEVSIS was adopted because (a) its subject-matter was particularly relevant to potential users of DIS; (b) the designers of the system had based their recommendations on their experience with such successful systems as INIS and AGRIS; (c) the design had already been tested successfully; and (d) there already existed in developing countries a large number of trained personnel familiar with that system.
- 32. It was decided that the system should be computerized in order for it to be connected efficiently with other relevant systems, such as UNBIS and LABORDOC and an offer to test the appropriateness of MINISIS software on a minicomputer for the duration of the pilot phase was accepted.

<sup>6/</sup> Including FAO, ILO, UNIDO, UNDP, ECA, CEPAL and OECD, as well as institutions in Argentina, Canada, Egypt, the Federal Republic of Germany, Guatemala, Peru, Uruguay, and Venezuela.

- 33. The decision to establish a pilot system using MINISIS was based on the fact that (a) the cost of using a minicomputer would be minimal; (b) much useful experience could be gained from utilization of a minicomputer for that type of information storage and retrieval system; and (c) such an experiment could offer interesting possibilities for future adaptation by the developing countries.
- 34. MINISIS was originally designed by the International Development Research Centre (IDRC) in Canada as an inexpensive software package suitable for installation in institutions requiring a reliable low-cost information system. It has been installed at ILO, at the Agricultural University in Wageningen, Netherlands, at the Institute of Scientific Information for Social Sciences in the USSR and at various Canadian institutions; several African countries are also planning to install it. As IDRC made MINISIS software available to the United Nations at no cost, and as the system runs on a minicomputer, ISU was able to establish its computerized system at minimal cost.
- 35. The computerized system was fully installed in mid-May 1979, using a leased printer-terminal linked by a telephone line to a minicomputer shared with various other organizations on a time-shared basis.

## (d) Document processing for computerization

36. Using the worksheet designed for DEVSIS, each document selected for inclusion in DIS is described with an average of 10-15 retrieval elements, such as author, organization, title, subjects covered, country, location, language, and project value, and an abstract of 100-150 words. By the end of 1979, records for the 4,000 selected items are expected to be computerized. For the pilot phase of the operation, abstracting and indexing are carried out by trained staff members of ISU. However, in a fully operational system, the abstract would be written by the author of the document.

## (e) Establishment and maintenance of computerized file

37. All data are entered on-line via the printer terminal, which is used to enter complete bibliographic information, including the abstract, at a speed of 10-15 items per hour. The terminal is similar to an ordinary electric typewriter and has a print-out capacity of 180 characters per second.

## (f) Utilization of computerized file

38. In addition to creating a file of complete bibliographic references and abstracts to be used for on-line search and retrieval, DIS is capable of producing: (a) indexes to the literature by subject, author, title, document number, geographical names and many other data elements, such as project values, sponsoring organizations of the studies and projects, and types of

- materials; (b) bibliographies; (c) lists of recent additions to the file, (d) on-line searches for information requested by users and (e) referral or non-bibliographic information.
- 39. Although user feed-back data necessary to measure the usefulness of the system cannot be sought until a data base large enough to yield meaningful results is established, an attempt was made to obtain user reaction to the system and its capabilities when the size of the data base exceeded 1,000 items. In late June, invitations were issued to all heads of delegations to the United Nations in New York to attend a demonstration of the system. Demonstrations of the system were also provided for the staff of the Secretariat. The system was also demonstrated for review by a representative of CLADES/CEPAL, who found it to be useful in identifying the existence of difficult-to-locate materials and in keeping the staff of the regional comission and its member Governments well informed of the work produced by or for the United Nations.
- 40. Samples of the proposed monthly <u>Development Information Abstract Journal</u> containing citations and abstracts of documents processed, with various useful indexes, were distributed to potential users for comments in order that the DIS outpu' might reflect their information needs. Comments received to date have been enthusiastic, indicating that there is indeed an information gap which can be filled by the proposed <u>Journal</u> and by the provision of on-line access to a computerized file of abstracts and references to unpublished material produced by and for the United Nations. Annex IV contains a sample of the proposed <u>Journal</u>.
- 41. However, it is felt that the system can be better evaluated when the size of the data base is increased. Therefore, during the remaining four months of the project, efforts will be concentrated on selection, processing and computerization of relevant documents, at the same time making potential users more familiar with the services available from ISU by continued demonstration of the system and by the wider distribution of sample outputs.

# 2. Co-ordination and co-operation with substantive units relating to information analysis and dissemination activities

42. Numerous activities initiated by various substantive offices in response to continuing interest demonstrated by States Members of the United Nations for improved access to information generated and collected for the United Nations made it imperative to provide an effective mechanism for co-ordination of those activities. During the pilot phase of the operation of ISU a modest amount of resources has been allocated to addressing this need.

## (a) Co-ordination with substantive divisions

- 43. The IESA Information Systems Task Force established in 1977 continues to provide a mechanism for intradepartmental co-ordination and collaboration. The Task Force, consisting of one substantive officer from each division, office or centre, serves as a focal point for the various departmental units and, at the same time, provides assistance to ISU in selecting documents for the system. The Task Force also serves as the channel through which ISU communicates with the departmental units on matters concerning their information systems and related activities, in order to avoid unnecessary duplication of efforts and to promote a co-ordinated approach to these activities.
- 44. The Unit also provides information sciences expertise, as need arises, within the Department. For example, the Unit contributed on a continuing basis to the study on the technological information network carried out by the Office for Science and Technology. It also assisted the Population Division in its effort to design and implement POPIN.
- 45. Additionally, the Unit provided information systems evaluation expertise to UNEP for evaluating its system for INFOTERRA and to the working group charged with the in-depth evaluation study of the work programme of the Centre for Transnational Corporations. In order to contribute towards the use of a common indexing language within the Secretariat, the Unit encouraged the consideration of the Macrothesaurus in preparing the UNBIS thesaurus.
- 46. There is evidence that such collaboration enhanced the ability of IESA to contribute effectively to over-all co-ordination efforts of the United Nations family, in accordance with its mandate.

## (b) Co-ordination with regional commissions

- 47. As the need arose, ISU was invited to participate in formulating ways to strengthen the information activities of the regional commissions. Through meetings and joint projects with the regional commissions, solutions to information-systems-related problems were found in several instances; for example, the Unit contributed towards the finalization of the DEVSIS/Africa study as a member of the study team. Consequently, the DEVSIS/Africa programme was formulated on the basis of the experience already acquired by the Unit and the members of the study team, and the components of the system selected for application by ECA correspond to those of DIS. The system to be established at ECA will utilize the same data-entry worksheets, user manual, user handbook, and the Macrothesaurus, as well as the computer software used by DIS.
- 48. Plans are being formulated with CLADES, which already has a computerized information system that is compatible with DIS, to exchange computerized data bases. A copy of the computerized file of CLADES has already been received by the Unit. The Unit is also exploring the possibility of co-operating with

the Documentation Centre for the Caribbean Development and Co-operation Committee in Port-of-Spain, which intends to establish an information system compatible with CLADES and DIS.

## (c) Co-operation with other organizations

- 49. The International Development Research Centre of Canada has offered the Unit a copy of its DEVSIS data base containing much valuable information dealing with international development, including input from Canada, the Federal Republic of Germany, Morocco, the Netherlands, Pakistan, the Philippines, and the USSR, representing samples of their development literature.
- 50. The Unit participates regularly in the work of the Inter-Organization Board for Information Systems and thus has the opportunity of informing the Board of the progress made in DIS and of the Unit's involvement in various information systems activities.
- 51. Through active participation in various information systems meetings organized by international organizations within and outside the United Nations, the Unit maintains close contact with these organizations to ensure that the work carried out by the Unit is in harmony with the on-going trends and activities. For example, the Unit participated in the ACC Working Party on Indexing Documents which promotes the use of compatible indexing vocabularies and seeks to establish effective means of interorganizational exchange of Because of its interest in UNESCO sectoral information systems, such as the Architectural Information System (ARKISYST) and the Science and Technology Policies Information Exchange System (SPINES), the Unit has worked closely with UNESCO through its Division of General Information Programme, as well as directly with offices responsible for sectoral information systems and services. The Unit is working with the United Nations Centre for Human Settlements (Habitat) in setting up a system which is compatible with DIS, so that the contents of the document collection being transferred to Nairobi can be readily accessible to interested users and the Centre will be able to utilize the data base created by the Unit.

## 3. Administrative and secretariat support

## (a) Preparation of General Assembly reports

52. Two reports have been prepared during the two-year pilot phase of the operation of the Unit. The Secretary-General's report (A/C.5/33/4), which was considered by ACABQ and the Fifth Committee of the General Assembly, reported on the progress achieved by the Unit during the five-month period from mid-March 1978, when the Unit was established, to mid-August 1978. The present report covers the operation of the Unit from mid-March 1978 to early August 1979.

## (b) Other activities

53. The Unit served the Department of International Economic and Social Affairs by providing policy and management-oriented support concerning information systems and services activities.

## 4. Cost estimates and Expenditures during 1978-1979

- 54. Based on projections to the end of 1979, it would appear that the expenditures will be lower than the estimated cost of the Unit's operation for the biennium 1978-1979, owing to (a) the Unit's not having had a full complement of staff for a portion of the entire two-year period (amount unspent \$39,000), (b) postponement of the microfiche production of documents originally proposed until the future of the Unit is decided (amount unspent \$10,000), and (c) the fact that inexpensive minicomputer technology (including the free use of software) was tested (amount unspent \$35,000). Consequently, it is expected that approximately \$84,000 would be the difference between the total cost estimates projected for the biennium in document A/C.5/32/47 (\$343,680) and the estimated actual expenditure (\$258,910) at the conclusion of the two-year project on 31 December 1979. Annex II contains the detailed breakdown of the estimated and projected expenditures during 1978-1979.
- 55. In response to paragraph 2 of General Assembly resolution 33/116 A, Section II, which requested that unpublished material in the files of the Department of Technical Co-operation for Development (TCD) be fully utilized through appropriate arrangments with the Unit, a large number of documents produced for TCD has been computerized by the Unit, providing TCD with a useful working tool.
- 56. Since funds for "microfiche production and processing for computer storage and retrieval" 7/ are routinely provided for in the budget for report costs in TCD-executed projects, it is envisaged that TCD would share the cost of computerization. On the basis of the current allocation of funds for technical co-operation projects, 8/ it could be estimated that up to approximately \$65,000 might be available from 1979 through 1980 for both computerization and microfiche production. Assuming that 25 per cent of this amount would be adequate for microfiche production, then the remaining 75 per cent should be available to finance the cost of computerizing TCD material produced in 1979-1980. If the activities for technical co-operation are continued at the present level, it is conceivable that approximately \$25,000 per year might be available in the ensuing years for computerization of reports of TCD-executed projects. The

<sup>7</sup>/ UNDP/Policies and Procedures Manual, sections 3714/Rev. 1 and 3716/Rev. 1 of 1 January 1978

 $<sup>\</sup>underline{8}$ / Statement by the Assistant Secretary-General, TCD, before the UNDP Governing Council, 25 June 1979

arrangements for funding by TCD for computerization and microfiche production would be worked out in further detail at a later date, and would be subject to funds being available for project reports.

### IV. ASSESSMENT AND RECOMMENDATIONS

## (a) Evaluation by the Joint Inspection Unit

- 57. In response to a recommendation by the General Assembly, the Joint Inspection Unit conducted a study of the Unit's work in April 1979. 9/ The study considered four main issues need, costs, compatibility and relationship with other organizations in reaching a decision concerning the work carried out by ISU and DIS.
- 58. Need. The Inspectors felt that the assessment of the need for the proposed system was the most critical issue and that "the system must be in operation for a period of approaching one year before the need for the system can be demonstrated on the basis of the use made of it".10/ They also suggested that "use must be carefully monitored by valid statistical methods so that the results can be presented to the various bodies concerned, including the General Assembly".11/
- 59. Costs. Based on the funds allocated for the two-year experimental period, the Inspectors estimated the total annual cost of the Unit to be approximately \$250,000, including the sum of \$40,000 necessary to obtain EDPIS-NYCC support.
- 60. Compatibility with other systems. The report notes the difference in purpose between UNBIS and such systems as LABORDOC and DIS. The report also points out that UNBIS is primarily "oriented towards library requirements, such as the production of catalogues and indexes" but that the other systems, like DIS, are oriented towards providing timely and relevant information to researchers, officials and decision-makers. The Inspectors acknowledged the difficult choice faced by DIS between its need to maintain compatibility with other systems that are relevant to the information needs of its users, and its mandate to achieve compatibility with a local system having different functions.
- 61. The report suggests that it would be useful for the proposed system to be presented to IOB for review and comment, since one of the IOB functions is to assess the compatibility of new systems with already existing ones in the United Nations organizations.

 $<sup>\</sup>underline{9}/$  Report on Information Services Unit, Department of International Economic and Social Affairs (JIU/REP/79/12).

<sup>10/</sup> Ibid., para. 19

<sup>11/</sup> Ibid.

62. Relationship with other organizations. The Inspectors emphasized the advantages to be gained by close co-operation between the Unit and EDPIS in the computerization effort of the Unit. The Inspectors also noted that because the two functions of the former Department of Economic and Social Affairs - substantive work and project work - had been divided between IESA and TCD, the subject field of the Unit straddled the line between the two new departments. They pointed out that the Development Information System could perform a useful bridging function between the two by collecting and providing access to documents produced for both. They therefore suggested that the needs of both departments be borne in mind when selecting documents for entry into the computer.

## (b) Comments and recommendations of the Secretary-General

- 63. Since the early phase of its operation, the Unit's major areas of concern included four main issues raised by JIU in its report: need for the establishment of the Unit with the two-fold responsibility of developing an information system and promoting compatibility among relevant information systems. To carry out that responsibility, it was necessary for the Unit to work closely with other organizations. The establishment of the Unit was also intended to benefit from the investment already made in previous studies and project. In developing the system, particular attention was given to minimize costs through the use of inexpensive methods and technology.
- 64. Need. The Secretary-General agrees with the view expressed by the Inspectors that the question of the need for the system can only be answered after a minimum period of use. He therefore concurs fully with the recommendation of the Inspectors that subject to the availability of additional voluntary funds, the Development Information System be given approximately a year in which the need can be demonstrated, and that, in consequence, the General Assembly should take its final decision on continuance of the Unit at its thirty-fifth session in 1980.
- 65. As indicated in paragraph 54 above, approximately \$84,000 would be the difference between the cost estimates projected in document A/C.5/32/47 and the expected actual expenditure during the biennium 1978/1979. If this amount were to be made available from existing extra-budgetary resources, there would be a need for an additional amount of \$100,000 for which new voluntary contributions need to be sought to continue the operation of ISU for another year. At the time of this writing, however, no additional extrabudgetary resources have yet been offered to finance the continuation of the operation of the Unit beyond 1979.
- 66. Costs. The Inspectors estimated the annual cost of the Unit to be approximately \$250,000. However, in the opinion of the Secretary-General, funds required for the continuation of the Unit's operation can be reduced to approximately \$190,000, if the level of the Unit's involvement in information systems and services activities of IESA and TCD does not increase and the use of the minicomputer is continued in 1980.

- 67. The estimate of start-up and operating costs requested in Section II of General Assembly resolution 33/116 A is given in annex III to the present report. It takes into account the recommendation of JIU that DIS be tested by its users for a further year.
- 68. As described in paragraph 56 above, the cost of document processing and computer use could be shared with TCD, since that department sets aside funds for computerization in its budget. The use of the software will continue to be provided by IDRC free of charge.
- 69. The amount estimated for the continuation of the programme should be seen in the light of the over-all expenditures of the activities it covers and its value in support of these activities. If, through frequent and widespread use of the system, experience and knowledge already acquired from previous studies and projects can be reused repeatedly and if such ready access to previously acquired knowledge can prevent unnecessary duplication of effort, the cost of operating the system might well be balanced against economies achieved.
- 70. Compatibility with other systems. As noted by the Inspectors, compatibility has been established between DIS and a number of other relevant information systems in the United Nations family of organizations through the use of common system components such as indexing terms and software. Additionally, the technical compatibility dealt with in paragraph 24 of the JIU report between UNBIS and DIS was also established when the data base created by DIS was copied on magnetic tape according to ISO Standard 2709 format 12/ and transmitted to EDPIS, which processed the tape to be read by the UNBIS software.
- 71. As it is described in chapter III of the present report, one of the most important factors which dictated all decisions affecting the design of the system, including the selection of the thesaurus, was the compatibility with systems relevant to the information needs of the users of DIS. Compatibility with relevant systems was also a reason for the test use of MINISIS software and minicomputer technology for the pilot phase of the operation, in addition to finding inexpensive alternatives to information systems operated on large and costly computers. Additionally, through that exercise, it has been established that compatibility among systems that handle information in related fields can be achieved through strict adherence to international standards and guidelines, as recommended by ACABQ in its report (A/33/7/Add.2).
- 72. Relationship with other organizations. In establishing a new information system, there is often danger of wasting resources. This pitfall can be avoided by taking a step-by-step approach, as recommended by ACABQ, by thoroughly surveying the activities of existing information systems and by

<sup>12/</sup> Documentation - Format for Bibliographic Information Exchange on Magnetic Tape, International Standards Organization, 1973.

consulting with the IOB and others who are in a position to provide up-to-date information about information science and technology and about the on-going information-systems-related activities of the United Nations family.

- 73. The Secretary-General concurs with the suggestion of the Inspectors that close co-operation between ISU and EDPIS could prove fruitful in the computerization effort of ISU; therefore, a close working relationship has been established with EDPIS in solving various technical proplems. For example, (a) with the assistance of EDPIS, compatibility between UNBIS and DIS has been established; (b) the same thesaurus specialist who was engaged to revise the 1979 version of the Macrothesaurus on behalf of ISU is now finalizing the UNBIS thesaurus; (c) a specialist who is thoroughly familiar with ISIS and MINISIS has been assigned by EDPIS to the UNBIS project and (d) the data base created by ISU has been added to the UNBIS data base as its subsystem.
- 74. In order to ensure that the system being established meets the needs of IESA and TCD, an arrangement was formally established in late 1978 between them to collaborate in the establishment and the use of DIS and a complementary routine has been established between the two departments in the selection and processing of documents and the creation and use of the computerized file.

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Annex I
PHASED WORK PLAN FOR 1978-1979

	Activities	Staf	f-W/M	Pl	nase I	Pl	nase	11	Pha	se I	11	Phas	e IV	_ Pl	hase '	<u>v</u>	Phase	· VI	Ph	hase	VII
		P	GS	Ap	il-Jur	e Ju	ıly-	Sept.	- 00	tDe	ec.	Jan.	-Mar.	Λ,	pril-	June	July	-Sept.		Oct	Dec.
ι.	Establishment and utilization of DIS																				
	(a) Document collection	2	5		-	+					+	-						+	-		-
	(b) Thesaurus preparation	1	1		-		1														l
	(c) Systems adaptation and implementation	5	1		<b>→</b>								$+ \rightarrow$								
	(d) Document processing for computerization	15	15			-	+	+				_	+		-	-		_			-
	<ul><li>(e) Establishment and maintenance of computerized file</li></ul>	6	10		1																
	(f) Utilization of computerized file	6	1															4			— —
2.	Co-ordination and co-operation with substantive units relating to information analysis/dissemination activities																				
	(a) With substantive divisions	2	1		-	-	+	+			-	_	+								,
	(b) With regional economic commissions	2	1				+	+		4	_	_									
	(c) With other international organizations	1	1			-	+	+-			_										
3.	Administrative and secretariat support																				
	(a) Preparation of reports for the General Assembly	1	1																		
	(b) Other activities	5	6		_	-	+				+	_			-	_	_	-		_	-
_						$\perp$	_	-	$\vdash$		_	_		_		_	$\bot$	_	$\sqcup$	_	
	Total staff time allocated	46	43						1 1	- 1				- [							

Annex II

COST ESTIMATES AND EXPENDITURES: 1978-1979

			1978			1979					
		Cost	Ac	tual	Co	st	Estimat	ted			
	<u> </u>	estimates	a/ expend	ditures	estim	ates a/	expendi	tures b/			
			\$			\$	1,				
_											
1.	Staff										
	Salaries and common										
	staff costs for two										
	Professionals (1 P-5,										
	1 P-3) and two General Service (1 G-5, 1 G-4/1)	121 700	74	230	127	600	135 900	~ /			
	Service (1 G-5, 1 G-4/1)	1 121 700	/4	230	127	800	135 900	<u>c</u> /			
2	Travel	2 500	2	500	2	700	2 700				
-•	114,61	2 300	-		_		2 .00				
3.	Equipment	5 500	5	000	4	500	2 100				
4.	Specialized services	500		100	8	500	1 000				
5.	Supplies and services										
		_		_							
	(a) EDPIS support	0		0	39	800	4 500	<u>d</u> /			
	(b) Command committee										
	(b) General services	16 900	17	200	12	E00	12 500				
	and supplies Grand total	16 800 147 000		300 130	196	580	13 580 159 780				
	Grand total	147 000		130	130	000	139 700	-			
	Difference between cost	estimates									
	and actual expenditure		(197	3) 47 8	70	(197	79) 36 9	900			
	and and and		(	- , <u></u>		,23	,				
	Total difference for the	e biennium	n 1978–19	79 84	770						
	_		•			(19)	/9) <u>36 9</u>	300			
	total difference for the	. DIGINITUI	17/0 17	, , 04	. , ,						

 $<sup>\</sup>underline{a}$ / These cost estimates were provided in the note by the Secretary-General to the General Assembly at its thirty-second session (A/C/5/32/47, para. 11).

b/ Including projections from August to the end of 1979.

 $<sup>\</sup>underline{c}$ / Temporary assistance was engaged in order to recover some of the work-months lost in 1978 during recruitment phase.

d/ Word-processing machine only. NYCC computer was not used during the experimental phase of pilot system, since software and minicomputer were made available to the United Nations free of charge by joint effort of IDRC and Franklin Institute.

## Annex III

## COST ESTIMATE

				1980 Extrabut	_
1.	Staff				
2	Salaries of two Professionals (1 P-5, 1 P-3) and two General Service (1 G-5, 1 G-4/1) Common staff costs  Travel	ral Subtotal			500 100 900
۷.	ITavei				
	Consultations with agencies and regional commissions			4	000
3.	Equipment				
	<ul> <li>(a) Data-processing equipment         Lease of minicomputer         Maintenance at \$550/mong     </li> <li>(b) Word-processing machine 16</li> </ul>			6 6	400 600 000 000
4.	Specialized services and mater	ials			
	Reference resources Software up-date Data-processing supplies	Subtotal	••••	2	000 500 000 500
5.	Reimbursement for supplies and services provided to the Unit				
	Office space rented Communications Office supplies	Subtotal	•••••	1	500 500 500 500
		Annual to	otal	192	900

## Annex IV

## IESA/ISU DEVELOPMENT INFORMATION ABSTRACT JOURNAL

### PREFACE

This sample issue of <u>Development Information Abstract Journal</u> introduces to its potential users a variety of information dissemination services that the <u>Development Information System</u> can provide. The items cited in the <u>Abstract Journal</u> represent a sample of the computerized references to <u>unpublished material</u> produced by or for the United Nations in the field of economic and social development.

The main section of the <u>Abstract Journal</u> comprises a full citation for each item, including the title of the document, report number, place and date of conference, date of writing, number of pages, author and affiliation, performing organization, project cost (when available), an informative abstract and a number to which entries in the indexes refer. Although the main section of a full issue of the journal could be arranged in any way - for instance, by subject or date of writing - this sample issue is arranged in alphabetical order by document title.

The main section is followed by four indexes:

Personal author index:

Subject index - based on descriptors selected from the

Macrothesaurus for Information Processing in
the Field of Economic and Social Development;

Report number index;

Geographic index - which refers to countries when they are the subject of the document.

The computerized system can handle the data elements in any way, and the arrangement of the abstract journal can be changed easily to suit the requirements of the user. For example, the system can produce an institution index, a project number index, a list of projects with their costs, or a list of documents by location.

All documents cited in the <u>Abstract Journal</u> can be made available to users on request, as the system also provides the location of the documents.

Additionally, on-line searches of information contained in the system may be provided for any staff member or delegate. These services are available from the Information Systems Unit of the Department of International Economic and Social Affairs.

IESA/ISU DEVELOPMENT INFORMATION ABSTRACT JOURNAL

\* COMPUTER CONTROL OF WATER RESOURCES SYSTEM IN THE MORAVA RIVER BASIN: [PROJECT] YUG/72/019: YUGOSLAVIA: APPLICATION OF SYSTEMS ANALYSIS TECHNIQUES FOR MANAGEMENT AND CONTROL OF WATER RESOURCES IN SERBIA.

1978
99 p.: ill.
Prepared for the Government of Yugoslavia.
Weiss, A.O.
UNDP, New York, N.Y. US

Report summarizes 5-year technology transfer project to develop computer capabilities and programme applications for control and management of water resources in Morava River Basin in the Republic of Serbia. Describes systems analysis models and data management techniques implemented, and types of professional personnel training received. Considers major unresolved water problems and needs and makes recommendations regarding future planning, design, operations control, and data bank development activities. A detailed description of a curently operational storage and retrieval system (HIDROMET) is given. Supporting charts and maps are included.

DATA PROCESSING CENTRE AT CARICOM SECRETARIAT, GEORGETOWN, GUYANA (UNDP PROJECT RLA/74/077): REPORT ON A MISSION TO GEORGETOWN, GUYANA, 28 JANUARY - 3 FEBRUARY 1979; PORT-OF-SPAIN, TRINIDAD AND TOBAGO,

3-7 FEBRUARY 1979 and KINGSTON, JAMAICA, 7-8 FEBRUARY 1979.

Apr 1979

10 p. : ill.

Dittoed report. Includes addendum 1 dated 4 May 1979

Berggren, G.A. (UN. Inter-regional Adviser on Computer Methods, New York, N.Y. US).

Report makes recommendations for a computer-based system for the collection of statistics at the CARICOM Secretariat in Georgetown, Guyana. It is suggested that a foreign trade statistics system be established first, and that the project budget be revised to accommodate the necessary purchase of equipment and hiring of personnel. A description of a trade data base is appended. (0002)

FACT FINDING REPORT ON STATISTICAL TRAINING IN THE CARIBBEAN, DECEMBER 13 1978 - JANUARY 11 1979: UNDP PROJECT RLA/74/077.

> [Mar 1979] 25 p. + app. Unpublished typescript Richards, W.A.

UNDP, New York, N.Y. Development of Regional Statistical Services Project cost: \$684 740

Report on a fact-finding mission in the Caribbean in preparation for a survey of training needs in statistics to be conducted in 1979. Reviews previously issued studies and proposals, examines existing training courses in Kingston and Port-of-Spain, and outlines a sequence of training courses bases patterned after existing programmes. Proposals are made for the establishment of a regional training centre for statistical officers. Tables show staff size of national statistical offices in the Caribbean. Appendices include outlines of courses and programmes being offered in various Caribbean countries. (0003)

INTERPRETATION OF RELATIONS AMONG MORTALITY, ECONOMICS OF THE HOUSEHOLD, AND THE HEALTH ENVIRONMENT.

DSI/SE/WP/79.15

(WHO. Meeting on Socioeconomic Determinants and Consequences of Mortality, Mexico City, 19 - 25 June 1979).

1979 35 p.

Unpublished typescript. Prepared with support from Population and Labour Policies Branch, Employment and Development Branch, ILO, Geneva

Schultz, T.P. (Yale University, New Haven, Conn. US).

Meeting paper discusses variations in mortality in low-income countries. The health environment, physical capabilities of the people and their human resources are considered. Child mortality is the basis of mortality measurement. The education of the mother is discussed. Statistical tables are appended. (0004)

PEAT STUDY IN BURUNDI: [PROJECT BDI/71/517].

8 Sept 1978

ca. 500 p. in various pagings : ill.

UNDP, New York, N.Y. US

Project cost: \$2 924 893

Consultant report on UNDP project, purpose of which is to assist the Government of Burundi in planning the utilization of peat reserves, both for the production of laterite and for electric energy production. Results of lab tests to determine peat's suitability for fuel for power plant and for use as raw material for producing ammonia and methanol are given, as are capital and operating costs for peat production and power plant. Recommendations for site for power plant and its design are included. Concludes that production of ammonia and methanol would be double the cost of their importation; however, peat could be used in electric energy production and laterite process. In first phase of study, all available data in Pinland on peat was collected. (0005)

POLICIES AND TECHNIQUES FOR MOBILIZING PERSONAL SAVINGS IN DEVELOPING COUNTRIES WITH SPECIAL EMPHASIS ON AFRICAN COUNTRIES: REPORT OF AN INTER-REGIONAL WORKSHOP, ALGIERS, 1 - 14 FEBRUARY 1978.

TCD/SEM.79/1

(UN. Interregional Workshop, Algiers, 1 - 14 Feb 1978).

Apr 1979

55 p.

UN. Department of Technical Co-operation for Development, New York, N.Y. US

Report discusses specific factors relating to mobilization of personal or household savings in developing countries, particularly in Africa. Savings policy is discussed in the larger context of an over-all monetary and fiscal development policy. Contractual savings schemes are explored, especially those designed to promote investment in housing. Types of savings institutions, their organization and management, and their function in rural areas are considered. Publicity techniques are briefly noted. (0006)

\* POPINS: STRATEGIE POUR L'ETABLISSEMENT DU SYSTEME: PROPOSITIONS.

POPINS/WP.2

16 June 1978

1 v. in various pagings

Mimeographed report

POPIN. Paris FR

Discusses strategy for establishing POPINS, a proposed population information system. Compares the objectives and required scope of coverage with UNISIST, AGRIS, DIRR and ISIS, outlines the history and advantages of POPINS, and proposes specific phases of implementation. (0007)

PROPOSALS FOR THE ORGANIZATION AND MANAGEMENT OF A LOCAL GOVERNMENT CREDIT INSTITUTION: REPORT ON A MISSION REQUESTED BY THE MINISTRY OF FINANCE, GOVERNMENT OF THE PHILIPPINES, 5 - 23 MARCH 1979

2 Apr 1979

18 p. : ill.

Dittoed report.

Villanueva, B.M. (UN. Department of Technical Co-operation for Development, New York, N.Y. US)

Mission report recommends creation of a national credit institution to assist local governments to participate in the over-all development process in the Philippines. Following a brief discussion of the financial advantages of such an institution, possible organizational forms (bank or non-bank), basic structure and management, as well as suggested sources of capital, are outlined. Supporting statistical tables are included. (0008)

QUESTION OF AN ARAB REGIONAL DOCUMENTATION CENTRE AND OF DATA PROCESSING EQUIPMENT FOR ECWA: REPORT OF A MISSION TO BEIRUT (26 - 29 MARCH AND 15 - 18 APRIL 1979).

14 May 1979

41 p. : ill.

Unpublished typescript.

Berggren, G.A. (UN. Inter-regional Adviser on Computer Methods, New York, N.Y. US)

Mission report discusses 1) computerization and basic procedures for application of process in Arab Regional Documentation Centre for Economic and Social Development and 2) arrangements of equipment for ECWA (Economic Commission for Western Asia). Recommends development of national investigative capability and use of DEVSIS. Supporting documents are annexed. (0009)

\* REPORT OF THE AD HOC WORKING GROUP ON APPROPRIATE TECHNOLOGY: ANNOTATED OUTLINE FOR THE REPORT OF THE ADVISORY COMMITTEE ON APPROPRIATE TECHNOLOGY FOR POLICY MAKERS.

E/AC.52/XXV/CRP.6

(UN. Advisory Committee on the Application of Science and Technology to Development, 25th session, Geneva, 5 - 16 Mar 1979).

9 Feb 1979.

25 p.

Mimeographed report. Item 4 of the provisional agenda

UN. Advisory Committee on the Application of Science and Technology to Development, New York, N.Y. US

Discusses origins and concept of appropriate technology, including criteria for appropriateness and levels of compatibility. Summarizes approaches, activities and interests of agencies witin the UN system, particularly ACAST. Outlines appropriate technology policies and programmes of Canada, the Netherlands, Sweden, UK, USA, Bangladesh, China, India, the Philippines, Sri Lanka, and Thailand, as well as efforts by several private, semi-private, voluntary and non-governmental organizations. Stresses need for research to solve the deficiencies and problems of appropriate technology. Brief recommendations are made to institute research and development programmes on the national and international levels. (0010)

\* REPORT ON A MISSION TO BOLIVIA (30 Nov. - 9 Dec. 1977).

1978.

28 p.

Unpublished typescript.

Sadowsky, G. (UN. Statistical Office, New York, N.Y. US)

Examines the largest of the computer installations in Bolivia, CENACO (Centro Nacional de Computacion), including the electronic equipment and computer programmes. The consultant offers an evaluation of electronic data processing capability for statistical data. Suggestions are given for processing population and housing censuses and recommendations are made for improvements in staff. (0011)

REPORT ON MISSION TO BUENOS AIRES, 8 TO 12 JANUARY [BY TECHNICAL ADVISER ON DATA PROCESSING, STATISTICAL OFFICE: PROJECT RLA-78-RO1].

16 Jan 1979.

18 p. in various pagings : ill.

Appendices in Spanish. Dittoed report

Lackner, M.R. (UN. Statistical Office, New York, N.Y. US).

Mission report outlines increased computer facilities required for Argentina's Hydrics Informatics Center of the Instituto Nacional de Ciencia y Tecnica Hidricas. To be financed by the Inter-American Development Bank, new data-processing equipment will enable the Center to co-operate on a regional scale in a technical co-operation programme among developing countries. Detailed recommendations include use of vendor suggestions and a preliminary proposal for facilities design. (0012)

- 75 -

REPORT ON MISSION TO SYRIAN ARAB REPUBLIC FROM 1 TO 10 DECEMBER 1978
[TO REVIEW THE RESULTS OF THE FIRST YEAR OF THE VITAL STATISTICS SAMPLE SURVEY AND TO ADVISE ON VARIOUS TECHNICAL QUESTIONS].

[1979].

3 p.

Dittoed report.

Kannisto, V. (UN. Inter-regional Adviser on Demographic and Social Statistics, New York, N.Y. US)

Mission report reviews vital statistics survey sample in Syrian Arab Republic. Describes methodology, and notes migration as a complicating factor. Sampling indicates high fertility and reduced mortality resulting in a natural population increase. Concludes future migration patterns are difficult to predict. (0013)

RURAL DEVELOPMENT PLANNING, ADMINISTRATION AND RESOURCES MANAGEMENT:
 REPORT OF THE WORKING GROUP ON RURAL DEVELOPMENT.

TCD/ARRD/CRP/1.

3 July 1979.

21 p.

Unpublished typescript.

UN. Department of Technical Co-operation for Development, New York, N.Y. US.

Report discusses role of the UN in providing assistance to member governments for rural development within national development schemes. Through the Department of Technical Co-operation for Development, the UN employs an integrated, multi-sectoral approach, and offers expertise at national, regional, and local levels, for development and administration planning, natural resources management, and population policy-making and planning. (0014)

SCIENCE AND TECHNOLOGY FOR DEVELOPMENT IN THE UNITED NATIONS: CONTRIBUTIONS OF UN ADVISORY COMMITTEE ON APPLICATION OF SCIENCE AND TECHNOLOGY TO DEVELOPMENT: REVIEW OF ACTIVITIES 1964 - 1979.

(UN. Advisory Committee on the Application of Science and Technology to Development, 25th session, Geneva, 5 - 16 Mar 1979).

[1979].

105 p.

Dittoed report.

UN. Office for Science and Technology, New York, N.Y. US
Reviews the history, activities and programmes of ACAST. Describes
origins, methods, strategy and involvement in the World Plan of Action.
Summarizes activities in the areas of appropriate technology, technology
transfer and assessment, institution building and policy making, science
education, natural resources and energy, natural disasters, human environment, population, food, health, housing, building and urban development,
industrialization, and computer and space technology. Presents an overview of ACAST programmes classified by subject area. Annexes include a
list of reports and publications relating to ACAST, and a list of past and
present members.

(0015)

\* SOCIOECONOMIC DETERMINANTS OF MORTALITY IN LATIN AMERICA.
DSI/SE/WP/79.6

(WHO. Meeting on Socioeconomic Determinants and Consequences of Mortality, Mexico City, 19 - 25 June 1979).

1979. 25 p.: ill.

Unpublished typescript.

Behm, H. (Centro Latinoamericano de Demografia, Santiago CL). Meeting paper discusses socioeconomic determinants of mortality in Latin America and in individual Latin American countries. Statistical tables relating mortality with rural environments, income, occupation, social class, and educational level are analysed. Recommendations relate to improvement in the health sector. (0016)

\* STRENGTHENING OF THE NATIONAL COMPUTER CENTRE IN NEPAL: REPORT ON A PROJECT FORMULATION MISSION TO KATHMANDU, 22 November - 13 December 1978: [PROJECT INT-75-R04].

Feb 1979.

33 p. in various pagings

Dittoed report.

Berggren, G.A.

UNDP, New York, N.Y. US

UNFPA, New York, N.Y. US

Project Cost: UNDP-\$1 353 000 Project Cost: UNFPA-\$605 600 Draft report of project to strengthen National Computer Centre of Nepal for data entry and processing for population and housing census 1981 and other priority tasks. Development objectives include automatic data processing in government, public institutions and corporations by a national staff. Immediate objectives relate to equipment, maintenance, training, and other census geocoding priority areas. Report concludes IBM 1401 is unsuitable, staff and premises are inadequate, computerization would be beneficial, and massive and systematic educational programme is needed. Concentration of data processing in a single centre in the country has not been questioned. Supporting documentation is appended.

\* TECHNICAL ASSISTANCE IN STATISTICAL DATA PROCESSING.

ST/12/7

(UN. ACC Sub-committee on Statistical Activities, 12th session,

New York, 6 - 10 Feb 1978)

1978.

32 p.

Unpublished typescript.

UN. Statistical Office, New York, N.Y. US

Paper provides an overview of the technical assistance offered by units in the UN system in statistics data processing. Included are activities in selling computers to developing countries and estimates of the amount of money spent for technical assistance. Reviews activities by ECLA, ESCAP, FAO, UNESCO, WHO and ECE. (0018)

TECHNOLOGY ASSESSMENT FOR DEVELOPMENT.

S/AL THOME VCRP.5

(GM. Assumery Committee on the Application of Science and Technology to Development, 25th session, Geneva, 5 - 16 Mar 1979).

3% 3e5 1979.

Line F.

- fittoed report. Item 4 of the provisional agenda
- UN. Advisory Committee on the Application of Science and Technology to Development, New York, N.Y. US.

Report of the UN Seminar of Technology Assessment for Development, held in Bangalore, India, 30 Oct - 10 Nov 1978 for the purpose of formulating criteria and guidelines for management and application for technology assessment techniques for development. The need for more technology is emphasized. Introductory material includes the preliminary contents of a study on guidelines for technology assessment, a follow-up of one of the recommendations of the seminar. (0019)

#### IESA/ISU DEVELOPMENT INFORMATION AUTHOR INDEX

Behm, H. (0016)

Berggren, G.A. (0002)

(0009) (0017)

Kannisto, V. (0013)

Lackner, M.R. (0012)

Richards, W.A. (0003)

Sadowsky, G. (0011)

Schultz, T.P. (0004)

Villanueva, B.M. (0008)

Weiss, A.O. (0001)

#### IESA/ISU DEVELOPMENT INFORMATION SUBJECT TERMS INDEX

#### ACAST

- Report of the Ad Hoc Working Group on Appropriate Technology:
  annotated outline for the report of the Advisory Committee on appropriate technology for policy makers. (0010)
- Science and technology for development in the United Nations: contributions of UN Advisory Committee on Application of Science and Technology to Development: review of activities 1964 - 1979. (0015)

#### APPROPRIATE TECHNOLOGY

Report of the Ad Hoc Working Group on Appropriate Technology:
annotated outline for the report of the Advisory Committee on
appropriate technology for policy makers. (0010)

#### CARIBBEAN

Fact finding report on statistical training in the Caribbean,
 December 13 1978 - January 11 1979: UNDP Project RLA/74/077.
 (0003)

#### CAUSES OF DEATH

Socioeconomic determinants of mortality in Latin America. (0016)

#### CHILDREN

Interpretation of relations among mortality, economics of the household, and the health environment. (0004)

#### COMPUTER CENTRES

Report on a mission to Bolivia (30 Nov. - 9 Dec. 1977). (0011)

- Report on mission to Buenos Aires, 8 to 12 January 1979 [by Technical Adviser on Data Processing, Statistical Office: project RLA-78-R01]. (0012)
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