R E P O R T

OF THE EVALUATION OF

O E C S I N F O N E T

Based on a Mission to Five Member Countries of

THE ORGANIZATION OF EASTERN CARIBBEAN STATES

12 - 23 February, 1989

At the Request of

THE INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

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C O N T E N T S

1. EXECUTIVE SUMMARY

(i) Purpose of the Evaluation

A final external evaluation of the OECS INFONET project and of the network which it supports, was conducted from 12-23 February, 1990.

The evaluation, which covers the period July, 1987 - February, 1990, was designed to determine if the objectives of the network, as delineated in the Project Document, had been met, and the contributing factors.

It was also intended to assess the extent of impact on both users and national and regional development; gaps in the system and its services in the areas of human resources, training requirements, information resources and communication; role of the Advisory Committee, role of innovation in the management of the system; and future directions of the system, including the possibility of long-term sustainability.

(ii) Main Findings

The evaluation found that the network has achieved success in realizing its general objective of providing "information support to major development activities, through access by local and regional users to current (1980 -), locally generated and locally relevant information in priority areas".

The modality for the provision of information support has been the establishment of a regional database, by which the first specific objective of the network has been achieved. The database consists of the holdings of the national documentation centres of a set of small, dependent or newly-independent member states, together with those of the parent institution, the Secretariat of the Organization of Eastern Caribbean States.

The production and provision of analytical tools, coupled with the development of skills in all aspects of network development, has improved access, of planners and policy- makers, in the countries and Secretariats, to in-house, in-country or external documentation, thereby assisting the growth of their technical capabilities and productivity.

The viability of the output the regional database depends on inputs from national documentation centres. In fulfillment of the third specific objective, the network has also expanded the institutional capacity of these participating national focal points for information, resulting in improvements in the volume, character and quality of their collections.

Linkages of these small, dispersed and resource-poor information units with other Caribbean information systems have been strengthened through participation in OECS INFONET which is fully compatible with, and integrated into, both the national and regional information sectors and reflects needs, policies and priorities of both the host governments and Secretariats.

Some structural weaknesses in the formulation and execution of the plan of action caused the project to achieve less than anticipated success in realizing its outputs. The lack of clear distinctions between immediate and long-term objectives, of an identifiable goal, of quantitative and other indicators of project achievement and of an adequate system for monitoring, tracking and reporting progress, hampered the application of suitable measures of performance, at both formative and summative evaluation stages.

The chief problem found to exist was the under-utilization of services. Contributory factors identified were insufficient service promotion and publicity, logistics, including location, size and facilities of the physical plant and the great variance in the quality of the current awareness tools, together with their frequency, outreach and use by patrons.

The impact of OECS INFONET on its chief beneficiaries was not considered substantial, largely because of some major assumptions which had a direct bearing on operation and activities: Popular perceptions of the value and utility of information and established patterns of information search militated against direct use of the system at the different service points.

This notwithstanding, the information resources available to the primary audience were considered technically sound and well-organized, although gaps in coverage were identified.

While the network amply allows for bibliographic data entry and search, systems are not yet in place for performing non-textual applications. Collections of statistics are paper-based for the most part, making the data, by the time they are available, of limited use for policy or administrative decision-making. Efforts are in progress to disseminate on-line numerical data from selected statistical databases also to integrate collections of audiovisual materials existing in the sub-region.

Despite reports of staff shortages in key areas of the system, the mission observed that the network was well-serviced by a trained and able cadre of professionals. Nevertheless, management forms and tools, such as policy and procedural manuals have yet to be formally developed at the requisite technical level, and the basic documentation of subsystems and applications was found to be inadequate in most centres.

Although training is one of the major areas of achievement in the project, some planned interventions, such as scholarships, were never carried through, resulting in staff shortages in some areas. Training initiatives also lacked adequate follow-up and reinforcement.

A fair amount of systems development is taking place to enable online data exchange and interface with other systems. This phase of the operation has been well-conceived and provision has been made to ensure that the necessary expertise and skills are available within the network. Despite the system's many problems, computerization is firmly entrenched and there is a constant demand for new applications and enhancements.

(iii) Recommendations

Key needs identified are:

- improvement of the physical plant and infrastructure; provision of additional computer and telecommunications hard- and software to permit expanded applications, microfiche capability, printing and publishing, with the future possibility of public end-user access to the network;

- increased human resource development and enhanced deployment of staff in critical areas;

- intensified marketing and promotion to create a demand for services within the client population;

- application of standardized tools and procedures to permit more efficient monitoring, record-keeping, documentation and communication;

Recommendations for OECS INFONET are:

- increase and intensify information support
- facilitate improved impact on target users
- strengthen technical and operational capacity
- equip the Technical Advisory Committee with wider powers and functions
- develop new and innovative approaches to programme management
- Provide for the future long-term growth and expansion of the network

I. BACKGROUND

1.0 Description and Rationale of OECS INFONET

1.1 Description

OECS INFONET became operational in July, 1987 as a result of a request to the International Development Research Centre (IDRC) from the Organization of Eastern Caribbean States (OECS), for funding to support the development of a sub-regional information network linking government documentation centres in member states of the OECS[1] as well as those within its two Secretariats.

The ten participating centres of the network are located in each of the eight OECS Member States and in the OECS Central (OECS/CS) and Economic Affairs (OECS/EAS) Secretariats, in Saint Lucia and Antigua, respectively. Funding for the first three years of the existence of the project to support the network's development was jointly provided by the IDRC and OECS/Member governments. The IDRC provided grant funds of Can$ 473,585.00, matched by a local contribution of Can$ 771,850.00, either as an actual allocation of funds, or their monetary equivalent in staff or material input.

The basic configuration of the network is a focal point or node at the core of a cluster of geographically dispersed units, each with its bank or base of data, which have been organized and stored with the aid of intelligent micro-computer technology.

These databases are the future online successors of still existing manual files maintained by the centres, which are in the process of being fully computerized and which build up the central database. Participating centres feed their data to the focal point on input sheets if operations are still manual, and on diskette if computerized.

The databases comprise bibliographic information in critical development areas falling within the scope of OECS sub-regional operations, viz. Agriculture, Trade, Industry, Health, Tourism, Energy, Housing, Education, Law and International Affairs. Machine-readable records of the national databases are periodically transmitted to the OECS INFONET central database, containing approximately 7,000 items.

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[1]Antigua/Barbuda, The Commonwealth of Dominica, Grenada, Montserrat, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines and Tortola (British Virgin Islands).

Current holdings of the comprehensive database comprise 15,000 titles, ranging from 7,000 in the OECS/EAS (highest) to 100 in the BVI Documentation Centre (lowest). Table I gives a breakdown on database development by centre:

CENTRE	DATABASE NAME	ITEMS INDEXED	CAB'S ISSUED	CIRCU-LATION
OECS CENTRAL SECRETARIAT	OECSCS	1300	31	100
OECS ECONOMIC AFFAIRS	OECS.EAS	7000	14	
OECS FISHERIES UNIT	OECSFU	50	--	--
WINBAN	LCWINBAN	50	--	--
ANTIGUA & BARBUDA	AGDOC	2000	5	
BRITISH VIRGIN ISLANDS	VGDOC	100	2	
DOMINICA	DMDOC	500	--	--
GRENADA	GDFIN	1500	5	
MONTSERRAT	MSDC	800	2	
ST KITTS & NEVIS	KNDOC	200	4	
ST LUCIA	LCDOC	200	2	
ST VINCENT & THE GRENADINES	VCMF	1300	6	
TOTAL NUMBER OF ITEMS INDEXED	-	15000		

Compatibility, systematization and interconnection of the bibliographic records are achieved through use of identical computer hardware (IBM-PCs) and data management software - UNESCO'S Computerized Documentation Services/Integrated Set of Information Systems (CDS ISIS), also an adapted version of CARISPLAN's indexing and abstracting format and the OECD Macrothesaurus.

The monthly "Current Awareness Bulletin" (CAB), published by the national centres (periodically) and OECS/CS (monthly), provides a hard-copy update of the electronic databases, keeping users informed of recent publications in their spheres of interest. Back issues of these bulletins, hence, provide a retrospective listing of items in the databases. Copies are provided free of charge to government personnel who may request titles using the in-bound document photocopy order form.

The documentation centres also maintain a monthly hard copy service of current contents of periodicals to which they subscribe and a Union List of Serials is being compiled by the OECS/EAS. "INFONET News", a monthly news feature service, is issued alongside the CAB from the OECS/CS documentation centre. It highlights recent events of interest in the network, gives personal profiles of network personnel, traces developments in the regional information sector and provides a calendar of forthcoming activities.

The gradual emergence of remote online communication within the system, to permit access to one another's databases, is being accomplished by the installation of modems, which have enabled interconnections among the computers over telephone lines.

These technological applications tried by the network have offered these small, island-nations of the OECS sub-region an unparalleled opportunity to exploit the most appropriate and effective mechanisms for data transmission to a wide spectrum of users, irrespective of their geographical separation.

At the hub of the system is the documentation centre in the corporate headquarters of the Organization, which provides co-ordination, guidance and direction.

This centre plays both a coordinating and participating role in the network; it is the core centre of the documentation centres and databases of the Secretariat[2], also the chief node and regional focal point of the comprehensive OECS INFONET network, comprising the above documentation centres/databases and "satellite" stations located in the countries.

Its participating role is reflected in its data collection, data sharing and document delivery functions, which are performed in tandem with, and in a manner similar to, the other documentation centres.

The databases of the two main documentation centres reflect the particular political and macro-economic emphases of the host secretariats. The OECS/CS collection comprises protocols, treatises, resolutions and materials on the sub-regional integration movement, while the OECS/EAS centre provides the economic sub-set of the Secretariat data base. It is, hence a more operational collection, providing data to backstop efforts of the EAS in assisting the socio-economic development of member states.

The databases of the national documentation centres are country-specific in content, operating as national focal points of the network. They also function as national nodes for regional information systems[3]. They also serve as national focal points for databases of international organizations, such as INFOTERRA of the United Nations Environmental Protection Agency (UNEP).

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[2] In Saint Lucia, in the OECS Documentation Centre and the Legal and Natural Resources Management Units; in Antigua, in the OECS/EAS Documentation Centre; and in St. Vincent in the OECS Fisheries Unit. Another centre has recently (March,1990) been made operational - the Eastern Caribbean States Export Development Agency (ECSEDA) in Dominica.

[3] Include CAGRIS (Caribbean Agricultural Information System), CARSTIN (Caribbean Science and Technology Information System), CEIS (Caribbean Energy Information System and CARISPLAN (Caribbean Information System for Economic and Social Planning).

Each of the centres has its own strong local organizational policies and governance. The national centres are mandated by their governments to be primarily responsible for the provision and coordination of technical information services specifically to government personnel, a function which they render as "arms" of ministries with portfolios in economic development, planning or finance.

However, while all centres maintain a functional attachment to these ministries, by virtue of their mandate, the nature of their collections and official designation, some are structurally and logistically linked to Ministries of Education as part of the national Library service system.

Within OECS INFONET also, specialist cooperating centres facilitate linkages between the network and other subject-specific databases in the areas of disaster preparedness - the Pan Caribbean Disaster Preparedness and Prevention Project (PCDPPP) and banana production - the Windward Islands Banana Grower's Association (WINBAN). (Annex 1B).

A database on transnational corporations - the "Billion Dollar Club (BCD)" database has been installed at the OECS/EAS as a means of strengthening the OECS database on foreign investment and technology transfer. It is proposed to expand the utility of this database by adding data on companies operating within the sub-region, using the same format.

Varying levels of cooperation are also maintained with the Government Information Services in the participating countries. A good indication of the network's impact on the regional information system is the interest demonstrated by these units in formally participating in the network.

Services of the network centres range from serials collection, in-house abstracting and indexing, circulation reference and referral to data searching, geared to meeting the information needs of specific groups of users, drawn mainly from the technical and decision-making ranks of the governments of member countries and of the Secretariats.

This audience, estimated at approximately 3,000 - 5,000 users, comprises, in the main, policy-makers, planners, administrators and researchers. However, the needs of other groups of users, particularly students and private sector personnel, are increasingly being addressed by the centres, in response to insistent demand for services currently unmet by the public libraries and other information sources in the countries.

This has created a range of planning, logistical, administrative and procedural requirements which the centres have begun to address, but without the benefit of clear policy guidelines as to how best to proceed.

1.2 Rationale

The mission confirmed that the network's establishment was justified by the expanding volume of information being generated by individuals and institutions in the different countries of the sub-region, and the need to capture and organize it for use by development personnel, whose work dictated that they be kept abreast of important advances and trends in their fields of expertise.

OECS INFONET responds to yet another need articulated by its primary target audience: for reliable, relevant and current information, delivered as speedily as possible, to assist functionaries in making the right decisions at the right time so as to avoid costly mistakes, improve their technical competence and decision-making capabilities and contributing to overall productivity.

The network is fully integrated into the regional information system and adheres to the emerging and established strategies governing the value, availability, accessibility, access and use of information, as reflected in the "Regional Information System Strategy for the Caribbean for the Year 2000" which provides a framework for systematic coordination.

The network is represented on the Caribbean Consultative Committee on Regional Information Systems and regularly participates in data exchange with CARISPLAN, CAGRIS and CEIS. For example, a total of 1,197 documents from OECS INFONET now form part of the CARISPLAN database, while 69 have been made available to CEIS and 270 to CAGRIS.

Harnessing the power of telecommunications technologies to organize, record, process, repackage and disseminate data has increased the availability of options for data storage and retrieval to the network en bloc, as well as its individual participating centres.

The tele-computing capabilities of the network, linked with the corresponding training for staff in the different centres of the system, have revolutionized the information sector in the sub-region. The results have been greatly improved and facilitated data sharing among dispersed sites, faster access speeds, a wider range and higher quality of information and the elimination of much of the duplication and overlap in information storage and delivery which have plagued library services in the past.

The documentation centres have, therefore, been equipped with the capabilities to respond to search requests which would have been difficult or even impossible in the traditional library setting.

2.0 Institutional Framework

2.1 Relationship to Policies and Priorities of OESC Member States

The network is fully supported by the host governments and reflects needs, priorities and policies in the institutional framework.

A preliminary needs assessment for the project was conducted in 1985 in order to determine ways in which the existing national information base could be enhanced to serve more effectively the use patterns and retrieval needs of the intended target audience.

Planners of the project opted for a resource-sharing modality for the network, indicating awareness of the urgent need for member states to establish cooperative arrangements for information management and delivery, in view of major budget cuts and the high costs involved in acquiring, processing and distributing information resources on the level of the individual library..

OECS INFONET has, therefore, provided the countries a means of sharing costs, as well as human resources and skills required in the execution of complex, time-consuming professional tasks involving considerable intellectual effort, such as cataloguing and abstracting. Where such skills are shared among centres, certain posts do not have to be created in all the centres, thereby relieving governments of the need to fill posts where trained personnel might not be available.

The network also adheres to current developments towards the formulation of national information policies and plans in the respective countries. In these plans, the national documentation centre has been designated the catalyst for spearheading information systems development. Its role involves sensitization of planners and decision-makers whose policies have bearing on implementation of the Plan.

OECS INFONET has enabled government functionaries to recognize that the documentation centre has an important role to play in the development process. In all countries visited on the mission, the national documentation centre has acquired a much stronger bargaining position vis a vis their parent institutions, than formerly, in terms of influencing policy decisions affecting the future of national information services or the status of information in general.

There is a limit to the amount of pressure which a regional project can exert on national policy, irrespective of the benefits it proposes to deliver, because of vastly different perspectives. The mission found it commendable that OECS INFONET was able to impact on national governments to the extent that it has instigated certain positive actions in support of national information systems development.

It is fair to say that, as a result of OECS INFONET, the databases of national documentation centres have now become institutionalized within the participating countries' information structures, coordinating the collections of ministries of government and guiding users to holdings on particular subjects.

OECS INFONET has also helped to create an enhanced image of the national documentation centre, through its association with the "icon of the information age" - the computer, which greatly enhances its integrity. By acquiring computers, the documentation centre is also seen as a more modern and up-to-date facility, possessing a level of efficiency and sophistication, not normally considered inherent in the conventional library setting.

Through OECS INFONET, IDRC, which has provided sustained support to the development of information activities in the Caribbean, has acquired a system for interfacing with the documentation centres in member states, which, because of their small size, fragmentation and infrastructural limitations, required a concerted approach to their problems. Their interests are, therefore, more effectively served as part of a community of centres bound by common issues and concerns, than as isolated units.

2.2 Relationship to Policies and Priorities of the Host Secretariat

The OECS is mandated to provide technical and advisory services to government programmes in a broad range of areas, including external relations, international trade, economic integration, finances and banking, statistics and income tax administration, inter alia.

In order to enable technical personnel in the Secretariats discharge their functions efficiently, a constant inflow of current and relevant data on new developments in the various fields is required, so that staff can improve their interpretive and analytical skills as well as their knowledge base.

Respondents referred to a common tendency in bureaucratic and non-academic settings, which is for the staff to accumulate in their offices a large body of documentation comprising personal collections and office files. These are regarded as the primary source of information needed in the context of their work responsibilities.

Prior to the establishment of OECS INFONET, such data would remain untapped and inaccessible on office shelves or in filing cabinets. Likewise, data generated by the different entities of the Organization were virtually " locked" into the units which had produced them, hence their value remained unexploited.

The establishment of OECS INFONET offered a practical response to the problem by systematically locating and retrieving documents of relevance to technical officers, organizing them according to clear guidelines and facilitating wide and unrestricted access to their contents, except in cases where confidentiality was dictated.

Much remains to be done in stimulating greater utilization of the services offered by the system within the Secretariats. However, OECS INFONET has laid the groundwork for enabling the institution's documentation centres to be viewed as important access points for meeting the information needs of its small and specialized community.

It has also injected an element of selectivity into the acquisitions process of the documentation centres, requiring purchase/acquisitions decisions to be made, not only in relation to the particular needs of the secretariat served, but also to the subject emphases of other centres in the network, in order to avoid undue duplication in the holdings of the databases.

OECS INFONET has also provided an additional resource for fostering collaboration and cooperation between the officers of the Secretariats and government policy-makers, strengthening the provision of technical cooperation and support to the field.

3.0 Evaluation of the Project

3.1 Purpose

A final evaluation of the OESC INFONET project and the related network, covering the period July, 1987 - February, 1990, was conducted by an independent consultant in five of the participating OECS member states - Saint Lucia, St. Vincent, Dominica , Antigua and Montserrat - during the period 12-23 February, 1990. (Annex 1A)

This summative, as distinct from formative, ongoing and internal evaluation, was scheduled in the original project design, to be undertaken in the 30th month of the project. Its purpose was to review and assess the process of means and ends whereby the stated objectives and planned benefits of the project had been realized through its execution, as well as the concomitant implementation of the network. Evaluation was, therefore, not solely project-oriented, but also, by association, covered the system which the project supported.

The purpose of the evaluation was to determine how effectively the system was working, how efficiently it was being managed in order to enable it meet its objectives and, whether support was justified by the impact of the system and services on beneficiaries.

3.1 Terms of Reference

The terms of reference for the evaluation of OECS INFONET, as established by the IDRC, were to determine if the objectives of the project had been met, and the contributing factors; impact of the project on target users; successes and problems; quantitative and qualitative aspects; gaps in the system and its services in the areas of human resources, training requirements, information resources and the communication of information; role of the Advisory Committee;, role of innovation; and future directions of the system, including the possibility of long-term sustainability.

In order to ensure that the project was adequately conceived and designed , so as to provide a firm foundation for the effective implementation of the network, required an examination of its goal, objectives, targets and institutional arrangements for management and administration.

In the process, inputs necessary for the achievement of objectives, such as physical facilities and infrastructure, human resources, financing and the monitoring and management reporting system, were critically assessed.

3.3 Methodology

Evaluation was based on site visits, field observation, discussions with key personnel and users of the system, and a review of relevant documentation on the project and network.

Prior to the mission, a visit was paid to the office of the OECS Eastern Caribbean Investment Promotion Service (ECIPS), to meet with the Director, who had been Director of the OECS/EAS at the time that the project was being conceived and negotiated.

During the conduct of missions to the five countries, discussions were held, primarily, with the Network Manager, the OECS Director General, the Director of the EAS and documentalists in each of the centres of the network. The consultant also met with representatives of the target audience, who were drawn mainly from the Secretariats and Government ministries in OECS Member countries.

After conducting missions to the OECS project countries, the consultant made an unscheduled stop in Barbados to meet with personnel whose contact with the network, either directly or peripherally, could shed interesting light on its operations as seen from a different and more objective perspective. This was considered important, although the State is not an OECS country.

Interviews were held, therefore, with relevant personnel in the Barbados-based Caribbean Development Bank (CDB), the Caribbean News Agency and the newspaper "The Nation" which publishes "EC News", the only newspaper serving the OECS sub-region, which is currently in abeyance. Since scope was not provided in the schedule of appointments for visits to media personnel, interviews with media representatives, who were seen to play a potentially vital role in future operations of the system, were considered highly necessary.

A meeting was also held, in the neighbouring territory of Trinidad & Tobago, with the Project Coordinator Of UNECLAC. (Annex 2).

The mission had limited access to quantitative data and relied extensively upon subjective reports which were elicited by means of an evaluation checklist developed as a convenient feedback mechanism. (Annex 3).

Findings of the mission were also drawn from a review of relevant documentation comprising the project proposal document, project reports, TAC meeting reports, issues of OECS INFONET News and the Current Awareness Bulletin and other publications. (Annex 4).

II. PROJECT DESIGN AND IMPLEMENTATION

4.0 Formulation and Execution of the Plan of Action

4.1. Objectives

In order to measure the effectiveness of the implementation of the project and system, results were compared with envisioned benefits, taking a critical look at the original objectives to determine whether they had been clearly defined and had practical and measurable targets.

This revealed that the way in which the project objectives had been defined made it difficult to determine actual levels and extent of achievements. In the first place, there was no clear statement of the goal of the project, which would describe, both its scope and the expected/desired scenario after all planned interventions had taken place.

Secondly, no distinctions were drawn between the immediate and long-term objectives. This which would have facilitated ordered and phased planning of the specific accomplishments designed to address the problem, indicating the time by which each should be completed, and the degree/extent of progress expected, so that, at any given time, an accurate assessment could be made of how much progress had been achieved.

Quantitative targets, or other measurable indicators of each objective's achievement were also considered necessary to help project monitoring assess how close particular objectives were to being reached, how far short they were off the mark or whether they had been reached or surpassed. Without these concrete measures of progress, only vague generalizations could made about the extent to which each objective had been realized.

In the mission's view, these shortcomings in project design had implications for the sustained, formative monitoring of the project and system by the TAC, in that there were no guidelines which could be followed to justify the accuracy of their assumptions.

The mission also considered that the "general" objective as stated encompassed a very broad range of anticipated accomplishments, placing the onus on project management to carry out a number of different activities simultaneously instead of in a pre-established sequential and developmental manner. The result has been that, while the objectives as stated in the project document were realized, the degree of success was moderate.

4.2 Impact

Considerable time, effort and money has been invested in OECS INFONET. Observable results of investments made in human, material and financial inputs are the physical outputs such as the regional database, better organized national collections, a pool of efficient, able and trained professional and the tangible products of these centres, in the form of current awareness bulletins, periodical current contents pages and issues of "INFONET News", of which 26 issues have so far appeared.

More difficult to quantify are the less tangible results of inputs, such as the gradual honing of the analytical, problem-solving and decision-making skills of the project beneficiaries, by means of the exposure gained to INFONET's services and products.

These beneficiaries of the project include the decision-making structure in the governments and Secretariats at policy level, as well as the technocrats and other functionaries at operational level.

4.2.1 Impact at Policy Level

The extent to which the governments perceived the need for, and were committed to, the concept and presence of OECS INFONET was determined to be an important component of impact.

The impact of OECS INFONET as a regional project was not considered strong within the policy-making echelons of the governments. All officers interviewed were appreciative of the efforts made to equip and expand the national documentation centres. However, it was noted that, while they approved of the concept of networking and resource-sharing among different countries, they appeared far more interested in how the project was assisting in the growth of the national facility.

One basic fact emerged - even as the national governments are committed to the regional scope of OECS INFONET, their primary allegiance is to its national operationalization, and the ability of its resources and infrastructure to respond to national requirements, priorities and policies.

Hence, the extent to which documentation centres gain support from the political directorate will depend increasingly upon how they are seen to function as viable instruments of national development.

In order to recoup investments made in the project, the governments require greater evidence of a functioning network. The value to governments of their national documentation centres will be the ability of each to perform rapid searches of its own holdings database, as well as of those of other centres in the system, in order to retrieve current availability information on priority subjects in a timely and efficient manner. These capabilities are not yet realized.

However, respondents felt strongly that to dispense with INFONET at this point, would be akin to "felling a tree just before it was beginning to bear fruit". Discussions with top and middle management personnel in the Government ministries revealed that the overall impression of INFONET 's benefit to national development was positive and that it should be sustained.

Respondents revealed awareness of the services offered and their potential value, although they admitted that they did not actually use these services to the extent anticipated by the project.

Much of the sponsorship and support of OECS INFONET emanated from personnel who displayed a keen awareness of the role and value of information and the importance of receiving it in a timely and efficient manner. This kind of awareness was not widely apparent. The absence of a clear-cut and operational national information policy and system in the countries was a recurrent topic. This appeared to affect attitudes towards information and its management, as well as decisions on the location, scope and operations of national documentation centres.

In this context, garnering the much-needed support for the continuation of the project will depend upon the government's perception of the importance of information, compliance with the establishment of a system to facilitate its smooth and effective management through a strategically-located national institution, and endorsement of the process of resource-sharing to provide for wider access to information from national as well as regional and extra-regional sources.

This will have implications for the development of a national information policy and system for the rationalization, planning and coordination of all information activities, as well as their liaison with external information systems, such as INFONET.

When INFONET is viewed within a context wider than being merely supportive of the national documentation centre, and a keen understanding gained of its institutional capabilities in this regard, it will have made the kind of impact on the government upon which its long-term sustainability depends.

4.2.2 Impact at Operational Level

Impact of OECS INFONET at operational level was examined in relation to two groups of beneficiaries:

(a) In the OECS Secretariat
(b) In the government ministries of member countries.

The mission detected, common to both groups of users, a low recognition of the value of information and how it could be used to increase productivity. Coupled with this was a negative view of libraries as trusted and reliable information sources.

In terms of the use of an information source, staff members from both sectors tended to rely almost exclusively on their personal collections of documents, as well as newspapers, colleagues, the government printery, statistical office and government information services, rather than library-based services.

Most users of the documentation centres indicated that they used its services on the basis of referrals from their traditional information sources, also consulted the centres only when their need for information had reached crisis proportions.

For example, before the national elections in one of the countries, there was a rush to use the documentation centre in order to search back issues of newspapers for copies of budget speeches, etc..

(a) Among users in the Secretariat, such as economists, statisticians, sector analysts, demographers and planners, the consultant observed a high degree of underutilization of the services.

In the OECS/EAS in 1989, for instance, loans reflected a decrease of 39% , while the number of queries (questions/answers) increased by roughly 10% between 1988 and 1989, sharply contrasting with a 15% drop in use of the Current Awareness Bulletin. This suggests that there is a demand for information, as reflected in the increase in requests, but this is not matched by sufficient service delivery.

As the mission, however, was unable to collect additional statistics which would show trends and patterns in service usage and delivery, no conclusive inferences could be drawn from such meagre data.

In the OECS/CS, although staff members knew of the centre's existence, they were grossly unaware of its capabilities, in terms of their specific needs.

While no formal system of user education had been initiated, observations showed that invitations had been issued by the Network Manager to visit and use the facilities of the centre, but these had not stimulated the desired interest and action on the part of the staff.

The fact that the services of the OECS/EAS were more extensively used by the staff of that institution, was attributed largely to its pre-project existence, which had enabled it to build up an identifiable profile and a regular clientele.

Discussions with the chief clients in this centre, such as Senior Economists in Sector Policy and Planning, Chief Statistician, Sector Analyst and Planner, indicated that there was a heavy demand on the centre's services from users in the institution.

The most urgent need expressed by senior management in these institutions was for speed of access to the information. An example proffered of the kinds of information required, illustrate the crucial importance of this requirement:

A foreign minerals exploration company wished to work in one of the member countries and the officer assigned to the project needed background data on the company profile and work record, rapidly as well as with a high degree of confidentiality, in order to make a crucial decision upon which a great deal was at stake.

Users in the Secretariat, specifically, were found to require rapid access to raw statistical data which could be broken down in various ways for the purposes of making comparisons and analyses.

At present, the statistical information which is disseminated through the OECS INFONET databases is contained in published reports, periodicals and government publications, e.g. population census reports, manpower and labour studies, national budgets, trade reports and sector studies. These data are already analyzed, compiled and published, hence are of limited use to users of statistics who need to process the raw data for their own purposes.

An urgent need was identified for an integrated statistical database which would bring together basic quantitative data, in numerical form, from different sources and fields and recompile them for different purposes.

Also identified in the OECS/EAS was a need for access to complete sets of country documents in specific areas e.g taxation, and current awareness searches to enable specific issues to be tracked, researched and recorded over time to permit proper analytical reporting.

Access to extra-regional databases, either directly by the individual centre or through an intermediary, was also considered vital.

Failure of the database to meet the information needs of all users, and the particularly low coverage reflected in certain sectoral areas, such as Tourism and Energy, was viewed as a problem. Also mentioned was a lack of key periodicals in certain fields, largely because of their cost.

While the CAB was circulated to all the departments of both Secretariats, a low level of interest and usage was reflected. Respondents who used the centre regularly reported that, by the time issues of the bulletin had appeared, they had already visited the centre and seen the new acquisitions. Respondents who used the centre only on an ad hoc basis, or not at all, indicated that they used the CAB only infrequently to learn of new additions to the collection, and more to update their own collections in specific subject areas.

These problems affected the ability of the documentation centres in the Secretariats to provide consistently high levels of service to their clients or to generate the interest needed, in both the existence of the centre and its operations.

(b) Main users in the government documentation centres are economists, agriculturalists, architects, urban planners , statisticians, management/administrative staff and researchers.

Centres reporting a higher level of usage were, as in the case of the OECS/EAS, those which had existed prior to INFONET's establishment and had built up credibility within the institutions to which they were affiliated, as well as within the wider government circle, such as St. Vincent. Nonetheless, these centres reported that levels of use still fell short of expectations.

Newly-established centres, or those which had recently acquired new premises and were in the process of moving, e.g. St. Lucia and Antigua, reported some degree of difficulty in attracting their clientele. This was compounded by the fact that they had not yet built up their resource base to a point where services were fully functional and could be promoted to users. The mission considered that this was a major reason for the previous reluctance of many centres to advertise their services.

In all countries visited, the skills of the documentalist were held in high regard by government personnel, particularly those who made use of the centre's services. However, as in the case of the government policy level personnel, such persons perceived the value of OECS INFONET from a strictly national rather than sub-regional standpoint.

The concept of networking appeared alien and irrelevant to some respondents, suggesting than an understanding of the operational profile and raison d'etre of the system should be communicated to this level of government personnel.

This could be achieved by the development of a clear statement of purpose for the network, outlining its guiding policy, principles, procedures and functions.

Regular communication should be maintained, particularly, between the documentalist and management level personnel in the ministries, for the purpose of acquainting them with up-to-date statistics on the operations of the system and centre.

The value of a regional resource-sharing facility to governments should be strongly emphasized, particularly in view of the linkage of national with sub-regional and regional databases, to capture elusive information not easily obtained locally. The possibility of access to technical reports, project reports, legal documents etc. which could easily be lost in files, should be stressed. The aim should be to help the government technocrat appreciate the advantages of access to a system for obtaining locally-inaccessible data, also for locating and identifying valuable regional materials.

5.0 Machinery for Implementation of the Project

The key issue in this component was to determine whether the administration, management and organization of the project has ensured that the flow of information from the units of the project to its primary audience was expeditious, was facilitated by sufficient human, financial and physical resources and enhanced by regular communication between the administrative and implementing levels of the project so that the directions of the project, including new information demands, could be anticipated and accommodated.

5.1 Administrative and Management Issues

5.1.1. Within the OESC Secretariats

Co-ordination of the documentation centres within the Secretariats as well as of the wider sub-regional network is carried out by the OESC Central Secretariat, through the Network Manager who also assumes the role of Documentalist in charge of its Documentation Centre.

As this documentation centre is located in the headquarters and political arm of the Organization, its activities and collection reflect non-technical subject areas, such as reports of meetings held by the Secretariat, speeches and papers on the issue of political unity. As such, it does not have the subject biases of its counterpart network focal point - the Economic Affairs Secretariat, or of the other subject-specific documentation centres within the Organization. Hence, it is the logical base for the coordinating machinery of the project.

Having been established after the inception of the project, it does not have the breadth and volume of the collection or services of the EAS; neither has it built up such a highly visible profile. The EAS has, in turn, progressed to a point where it has become incorporated into a unified Intelligence Unit within the organizational structure, thereby is slated to perform a new range of functions related to <u>internal</u> information management in addition to its regular <u>external</u> information management tasks.

It serves a larger clientele largely comprising information - conscious officers who are fully familiar with all information management functions performed as well as with the capability of the centre to cater to their needs.

Questions relating to the comparative work output and level of efficiency of the two centres as well as to either's suitability for the network coordinating role, should be viewed in light of the above considerations.

Because of its dual role of project/network "nerve center" and documentation centre, the OECS/CS centre has evolved in a different direction. This has occurred less from user demand than from the extent to which it must increasingly respond to the network's growing needs for more effective methods of finding, storing, processing and retrieving high-quality, current and timely information, as well as performing specialized services.

As a result, the OESC/CS has arrived at the stage where it now requires greater, more specialized and more skilled input than the present incumbent is now able to perform if she must simultaneously juggle the conflicting demands of network management and documentation centre organization.

A clear line of demarcation has to be drawn between the responsibilities of each of the two operations now co-existing within OECS/CS. Because of the project's increasingly public profile and the shifts in information demand within the sub-region, the network management structure will have to becoming increasingly responsive to network issues which will require being freed from documentation centre responsibilities to be able to cope with a whole gamut of complex tasks not currently performed.

The documentation centre should continue to function as a clearing house in order that it can locate, from any source, information required at particular service point which cannot be provided in-house.

Other roles identified for the OECS/CS include maintaining database backup files on microfiche, also microfiche collections of items, such as national newspapers, which are not currently in the database. Building the capability for accessing extra-regional databases, maintaining a desktop publishing and printing facility and a CD-ROM catalogue - these are viewed by the mission as the range of new directions which could be pursued by the central, coordinating centre. It is also not inconceivable that in the future, the possibility of marketing the regional database commercially could be explored, with the centre as the principal actor in this process.

Role of the Network Manager

The creation, in the OECS/CS Secretariat, of the position of documentalist made possible the establishment of an in-house facility which had not previously existed, for the acquisition and processing of documents directly pertaining to its mandate, functions, external relations and activities, as distinct from its substantive work areas. It also facilitated the transmission of this information to the public, both within and outside the Organization.

INFONET, therefore, has enabled the functioning of a public information resource in and for the OECS, inasmuch as no such localized facility exists. The presence of the network has enabled senior clerks in charge of OECS documentation centres to receive critical training in library/information science procedures related to their role and function. INFONET has also acted as a conduit for the wider circulation and use of vital but generally inaccessible data which has traditionally been kept in office files in the units of the Secretariat.

A role must be defined for the Network Manager which separates network management functions from those performed as documentalist. The post of documentalist, as well as that of documentation assistant, could also both be absorbed by the Secretariat at the end of external project funding.

The terms of reference for the post of Network Manager would relate to ensuring that the concepts, intents, goals, objectives, policies, procedures and tasks of the network are all linked in a coherent service activity.

Management tasks would include planning, budgeting and monitoring the internal workings of the service; data gathering and record keeping; developing staff recruitment policies, work profiles and training guidelines; coordinating networking and automation activities; and providing advisory services to support such activities. Functions would also include the co-ordination of information activities in the OESC, liaison with professional organizations and interest groups on networking issues and leadership of the TAC.

Role of the Technical Advisory Committee

The TAC should have widened powers and functions to include policy direction, monitoring, advocacy, management reporting and coordination. It should represent the mechanism through which the parent institutions - the Secretariats and governments of the OECS - are advised about the progress of the network and be an integral part of its management structure.

Roles would include the formulation of policies on various issues affecting the network; discretionary powers with regard to the adoption of policies and practices; advice on the development of a plan of action for the network, including standards, policies and procedures to be followed in key areas.

The Committee should be a more multidisciplinary group than at present and would comprise nominees of the Ministries of Planning/Economic Development or Finance and of the Ministries of Education from member countries, heads of regional information networks and representatives from the private sector. Observers, drawn from different development sectors of the countries, should be invited to attend meetings. Observers from major funding and collaborating agencies and institutions in the region, should also attend.

5.1.1. Within Member Countries

The changing climate of information delivery under the INFONET project, coupled with the expanded scope of documentation centres in the OESC member countries, have created some administrative and organizational requirements which need to be urgently addressed, in the first instance at country level, in order that consistency and efficiency of the network can be maintained at regional level.

Member countries all have their own "housekeeping " arrangements which are dictated by their national policies, priorities and agenda. Some aspects might not necessarily mesh with the project's design, orientation, practices, or overall guiding philosophy.

It cannot be overstressed that points of divergence which could pose potential problems for the future survival of the network and system should be resolved. Particularly, if the attitudes of key decision-makers are not consonant with the goals, aims and objectives of the network, attempts should be made to clarify important points of policy and procedure.

What appears to be lacking on the part of some key government policy-makers, is a clear understanding of information management requirements and how they fit into the government administrative structure.

During discussion on the development of national information plans documentation centres were proposed as primary agencies for the planning and coordination of all library and information activities, also for liaison with external bodies.

These centres were generally located within the establishment of either the Ministry of Finance or Planning or the Ministry having the portfolio for Economic Development.

However, the lack of guidelines on information service management and organization, due to the absence of a policy, has led to inconsistencies and wide variations in the location of the centre.

While, in the majority of cases, it is under Finance/Planning, some countries have elected to put it under Education, together with Library Services.

Under the terms of the project, responsibility for national documentation centres is vested in the Ministry of Planning or Finance, which constitutes the productive or "growth" sector of the government machinery. This Ministry tends to be comparatively well-funded and to attract a sizeable portion of donor funding.

In countries which have pursued this trend,the project is thereby linked with a growth-oriented ministry rather than one which is "non-productive" and human resource development-oriented, as in the case of the Ministry of Education, which does not generally attract as much financial support and has a smaller budget.

Where the documentation centre is sited in the Ministry of Education, as part of the Library structure, it has to compete for scarce financial resources and in most cases the documentation centre does not have a separate budget from the Library.

Furthermore, there are instances in which even where the centre is affiliated with the Ministry of Planning, the staff belongs to the Ministry of Education, and the documentalist in charge of the centre reports to the Librarian, as in the case of Montserrat.

This centre was formerly attached to the Ministry of Finance, located in its Development Unit, but was later transferred to Education, where it now remains. While under Planning it had its own budget, but now shares the Library budget.

Dominica is another case in point. The documentation centre, which occupies handsome, purpose-built facilities on the grounds of the government complex, was originally based in Planning, but is now under Education. Up until its relocation, it shared quarters with the Library and some expenses were absorbed by the Library head in the Ministry of Education's budget.

Another aspect noted was that, whether or not the staff of the centre belongs to the Ministry of Education or Finance, does not prevent a free movement of staff between the two locations, whenever the need arises for additional human resources. As a result, lines of authority and command are blurred, creating administrative and procedural problems.

For instance, the mission found that, in cases where the staff of the documentation centre and Library are shared, there was considerable backlog in the documentation centre tasks, e.g. indexing and abstracting, while all library operations were up-to-date.

This was even more curious in light of the fact that the library had two full-time professional librarians as well as a library clerk, yet the documentalist performed duties in the library from time to time.

In this atmosphere of informal staff interchange incumbents of particular posts in the documentation centre could well be deployed for a large portion of their time, in tasks falling outside the scope of documentation centre activities. This could affect work output and ultimately the delivery of services.

Another potential problem is that staff hired under one or the other ministry could be transferred to another office or position in that same ministry but outside the ambit of information, which could have serious implications for effective human resource development in the network.

The mission recommends that, where the organizational policies and governance of the documentation centres could result in reduced impact of the network's operations, opportunities should be sought to engage in dialogue with the administrative machinery, in order to clarify thorny issues.

Within the centres themselves, lines of authority and reporting should be clarified for the staffs of the documentation centre and library, and a demarcation drawn between the responsibilities of each. Official, rather than ad hoc arrangements should be worked out between the management of both institutions for the sharing of staff, in order to maintain the normal flow of work.

5.2 Staffing and Training

5.2.1 Staffing

The mission noted with satisfaction the existence of a pool of well-trained and qualified staff in place at all national documentation centres and in the Secretariats. The project made provision for the following staff to operate the network centres:

OECS/CS

Network Manager; Clerk/Library Assistant

OESC/EAS

Documentalist
Information Specialist (Part-time)
2 Clerks (Library Assistants)

Member Countries

All have a trained documentalist on staff, and, depending on the size of the centre, support staff ranges from one to two clerks.

According to the terms of the project, funds were to be made available to specific centres, namely St.Vincent, St.Lucia and Dominica, for Indexers and an Indexer's Workshop was conducted by the staff of the United Nations Economic and Social Commission for the Caribbean and Latin America,(UNECLAC).

There has been some difficulty encountered in filling the posts in St. Lucia and Dominica, due to the lack of continuity in funding beyond one year. Funds have been provided by the project for contracting out indexing jobs "by piecework" where indexers have not been included in the staffing structure.

This has also created a problem, associated with the uneven quality of the output. Also, funds were disbursed to the OECS/EAS for piecework indexing, under the assumption that the abstracting would be done by the documentalist. However, this centre has been somewhat behind in completing its abstracts, resulting in incomplete entries for the database.

The team works as a tightly -knit, supportive unit, under the leadership of a skilled Network Manager possessing the requisite qualifications and experience for the post.

5.2.2 Training

The efficiency of the network for information retrieval has been largely due to the strength and quality of the interaction and linkages existing between the various nodes. A spirit of reciprocity and co-operation flourishes among the staff in the different centres, facilitating a great deal of informal resource-sharing.

Respondents indicated that the seminars and workshops funded by the project helped to reinforce the feeling of "community" and fostered a sympathetic learning environment in which an element of "mentoring" enabled less experienced participants to gain reinforcement and reassurance. These have also helped to maintain staff currency and quality, and have provided opportunities for staff to report on new technical developments and share insights on problems and solutions.

These seminars and workshops have transferred the needed skills

These seminars and workshops have transferred the needed skills in computers, abstracting and indexing and the CDS-ISIS software, thereby preparing the staff the cope with the myriad duties and responsibilities involved in managing an information service as distinct from a straightforward library operation.

Table II gives a breakdown of training activities undertaken by the project over the period of the grant:

TABLE II

ST LUCIA				ST KITTS			
SEMINAR ON INFONET PROCEDURES	NATIONAL CENTRES: 8 OECS : 2 OTHER REGIONAL : 4	3	OCT 87	CDS/ISIS (VERSION 2.3) WORKSHOP	NATIONAL CENTRES: 8 OECS : 4 OTHER REGIONAL : 1	3	NOV 89
INDEXING WORKSHOP	LOCAL (ST LUCIA): 3 OVERSEAS - BVI : 1 DOMINICA : 1 ST VINCENT : 1	4	JUN 88		DOMINICA		
				COMPUTER LITERACY/ PUBLIC RELATIONS/ PROJECT PREPARATION	NATIONAL CENTRES: 10 OECS : 3 OTHER REGIONAL : 4	2 1 1	JUL 88

One of the most positive features of the project is the development of the professional and personal competencies of all levels of staff to cope with a range of new service functions. INFONET has, therefore, opened up a range of training possibilities for library personnel in the sub-region, ranging from on-the-job, to short- and long-term trainINg and workshops.

The project has also provided some training through attachments for documentalists and indexers to the OESC/CS and OESC EAS. Supervisory visits were also undertaken, outside the scope of the project, by consultants from UNESCO and UNECLAC, to some of the centres.

A problem identified as serious is a failure to attract and maintain qualified professional staff. This appears to stem from the fact that the prevailing profile of the Library and Information profession in the sub-region is very low, resulting in a lack of interest in the training opportunities made available by the project.

Two post-graduate scholarships in Library and Information Science were offered under the project to nationals of Antigua and the British Virgin Islands, however, no candidate was identified for either award, indicating that the type of training being offered may be inappropriate, in light of current realities which indicate a greater need for undergraduate than post-graduate courses.

While the scholarship available in Tortola has remained at the post-graduate level, the Antigua award has been changed to accomodate a three -year undergraduate library degree course tenable at the UWI, which is currently being pursued. The issue of the BVI scholarship remains unresolved but a suggestion has been made to use the funds to employ a foreign national to fill the post for one year, with the proviso that the Government would then absorb it.

In this context also, the needs of incumbents of posts who do not have university qualifications or other equivalent certification, should be considered, by giving them opportunities to pursue such training. Where possible, "blocks" of training, undertaken on a quarterly basis or during the summer, over a period of two to three years, should be selected over long-term training.

Training of support staff has been undertaken through on-the-job tutoring and two attachments to the OESA/EAS centre for documentation assistants from the BVI and St.Kitts-Nevis. In-house training of support staff was found to be an unsatisfactory arrangement, due to the fact that the documentalists are often caught up in a spiral of increasing demands from clients as well as daily operations of the centre, which encroach heavily on their time.

The mission felt that this component needed additional support and that a new phase of the project should begin with retraining of documentalists and library assistants in library automation skills, in order to increase their competence and confidence in this area.

It was also noted that, although all the documentalists in charge had been exposed to some amount of training in computers and use of the CDS-ISIS software, they are not, in general, sufficiently au fait with the technology to cope with unanticipated technical problems which might arise or to "troubleshoot" when the equipment or programmes do not perform at peak efficiency.

A need was expressed for follow-up individual and personal consultation for documentalists in their normal work setting, after receiving formal training. This should focus on computer hardware, use of the software, PC/MS-DOS, of which some of the documentalists confessed to have only a peripheral understanding, computer interfaces, desktop publishing and printing and new technologies.

Informal relationships have been established with some local computer companies which provide assistance on requests, but a need was strongly identified for hands-on , on site training in computers and tele-computing at the base facilities, which could be undertaken on either an interpersonal or group basis.

Cable & Wireless also expressed an interest in training groups of documentalists in aspects of tele-computing, particularly in light of

Cable & Wireless also expressed an interest in training groups of documentalists in aspects of tele-computing, particularly in light of the installation of modems in some of the centres and the limited telecommunications and telecomputing capability of most incumbents.

Installation, testing and use of the modems for telephone data transmission may be a simple or complicated procedure relative to the amount of prior training or exposure received. Lack of familiarity with the system has been identified as the chief factor responsible for the slow process in online data transmission between the centres which now have modems in place.

Apart from a few abortive trial runs, in St. Lucia between the OESC/CS, Central Library and Government Information Service, no online communication has been established on a sustained basis. Initial or refresher hands-on training in this area is, therefore, urgently needed.

Training Methodologies

Training to increase the skills of the documentalists in the different areas impinging upon data retrieval operations of the centres should also be explored. Many different instructional options now available should be considered, in order to find the most appropriate training modalilties which might not necessarily involve sending the incumbents away for training and leaving the centres short-staffed during that period, which is viewed as a problem.

In the emerging automated environment of the network, computer-assisted instructional programmes, including printed texts, videotapes and diskettes, supplemented by practice time at the computer and part-time attendance at a local training facility, offer a feasible alternative to external training.

Use of the UWIDITE distance teaching network, offers another mechanism for cooperation and interaction among the incumbents of the system. Groups of trainees brought together for different small-group training events at the UWI Extramural centres hooked up to the system, should be examined as a serious option.

Using this approach, courses on the improvement of data management skills could be taught periodically to reinforce previous training and upgrade the competence of staff. Aspects to be covered could include clarifying information needs and search objectives, formulating basic search logic and identifying strategies, search terms and commands, database structure and development and non-bibliographic data entry and search. A portable microcomputer should be considered an essential component of such training.

Training Tools

Another dimension to the training currently offered to service staff is the improvement of work methods and techniques through the use of appropriate tools which will simplify operations carried out in the centre. The CARISPLAN formats for standard bibliographic description are currently used in preparing records and analytic summaries for the database, with modifications as necessary, to accomodate requirements for both textual and audio-visual entries.

With the exception of the OESC /EAS centre which has created a simple manual of procedures for in-house use, the mission did not locate in any of the other centres handbooks or guides which clearly describe the adapted formats being used in the centre for indexing and data entry functions.

Since these procedures are now standard practice throughout the network, the development of a policy and procedures manual incorporating information on the standards used to create and input records and other decisions relevant to database planning and design, is recommended.

The manual would not be intended to duplicate information given in instructions on use of the software, but to describe the unique fields and structure of the INFONET database and how the CDS-ISIS software can be adapted for specific applications.

It would include specific examples, illustrations and samples of forms like the user profile, search request form, logsheet, search results cover-sheet, evaluation forms and monthly statistics, also a section on "troubleshooting". The manual would, further, be an important component of continuing education efforts in the network, a useful complement to training activities and an important tool for building awareness and familiarity with the basic tools and procedures of the service into training for all levels of staff.

Training should also be provided in areas for which a need has been dictated by emerging directions and emphases, such as Communication and Public Relations, Desk-top Publishing and Printing, Records Management and Tele-computing.

5.3 Space, Equipment and Infrastructure

5.3.1 Spatial Considerations

This aspect of the evaluation was aimed at examining the physical environment and facilities of the network and determine the extent to which it served the served the end of efficient and effective information delivery to the primary audience.

The mission noted, primarily, that in the main, the atmosphere and general conditions prevailing in most of the centres visited were not conducive to use by patrons.

On the national scene, of the centres visited by the consultant, settings range from a purpose-built unit in Dominica and a specially-designated, adequately-sized section in the Ministry of Planning (Antigua and St. Lucia) to small, cramped quarters in Montserrat and St. Vincent.

Reports also indicated that spatial considerations have not been adequately addressed in the remaining national centres, with the St. Kitts/Nevis centre, particularly, needing urgent relocation from its present small room in the Public Library building. It should be noted in this context, that the INFONET network of documentation centres is located in a hurricane zone, the consequences of which have already been experienced in the devastation sustained by the centre in St. Kitts, which reports claim, served to worsen an already unsatisfactory situation.

This fact raises the important issue of creating and maintaining duplicate collections of database holdings in other formats e.g. microfiche, for storage in alternative locations under conditions which can withstand the effects of natural disasters. It also suggests that appropriate building codes should be applied in the construction of these centres, a matter which should be seriously considered in construction or relocation decisions.

The overriding impression gained by the mission in both the OESC/CS and OESC/EAS is one of poor space allocation to accomodate daily operations, collections, normal traffic flow and user seating.

In the OESC/CS, network/project management does not have an office which is separated from the operations of the documentation centre, and where the Network Manager can concentrate without interruptions on the business of coordinating and managing complex network operations, writing reports, preparing budgets and other items requiring privacy and peace.

There is also no workspace for centre operations, apart from desks for Network Manager/Documentalist and Clerk, which are used for a variety of tasks related to administration as well as information processing.

This crowding of both inert and mobile entitities into a very small area has created an inconvenient and distressing condition in which the centre's ability to provide good service to patrons has been stretched to the limit.

There is absolutely no space for a circulation desk, book-trucks, filing cabinets or other items of library furniture and hardware. The computer also does not occupy a safe, secure or adequate location in respect of the proper installation and use of telephone and electrical facilities as well as data entry and search operations.

The problem is especially acute in the OECS/EAS which serves a larger client body. A specific area of the EAS's operations has been delineated for the centre prior to the start of the project, but over time, the functions have outgrown the already deficient area. The majority of space is committed to the centre's expanding collections, which has forced service staff to occupy quarters in the adjacent Registry where the computer terminal is located.

In centres of the network where the rate of growth has outpaced earlier estimations, decisions must urgently be made on how to achieve the right balance between collections, staff and users in the existing physical plant. Where possible, decisions should be made on major facilities changes and improvements, such as the construction of a new building or relocation, as in the case of centres where the problem assumes critical proportions.

To influence such specific budgetary decisions will require involvement of network management in order to build awareness of the interaction between the physical plants of the network and the services they are expected to offer. The urgent need to improve these conditions should also be viewed in the context of network promotion and marketing which will be virtually ineffective if the centres are unable to deliver the services promised because of space and other physical limitations.

5.3.2 Equipment, Materials and Information Delivery

The OECS INFONET database is a computer-based database made up of collections dating from 1980 onwards, existing in the in-house databases of participating national documentation centres and in the Secretariat of the OECS. Bibliographic description of each item includes its physical location in the OECS/INFONET network.

The materials include books, journal articles, directories and other publications acquired by the centres, as well as original materials like proposals, treatises and research reports generated by the centres. Consideration is now being given to the inclusion of non-bibliographic materials, such as audio-visuals, maps and numerical statistics.

Compatible microcomputers (IBM PCs) and software written for the MS DOS system are used throughout the network for data entry and search. The coordinating centre at the OECS uses an IBM System 2 computer with a 40 mg byte hard disk and 1 megabyte of memory, equipped with a direct-connect Hayes 1200 bps modem for full-duplex operation.

The limited hard disk capacity of the computers is viewed as a problem since it limits the power and capacity of the computer to run large programmes and give fast response. A suggestion has been made to upgrade the capacity to 300 MB, in order to enhance the performance of the software.

For hard-copy reproduction of the database in the form up a current awareness bulletin, print-outs of other bibliographical listings and other publications, the centre uses an IBM draft printer.

This is considered inadequate, particularly in view of the poor quality of the printed output and the critical need to enhance the appearance of the publications. Purchase decisions on new equipment favour acquisition of desktop publishing equipment to permit publication-quality text and graphics in the office environment.

Additional modems, using the Hayes SMARTCOM communications programme, have been installed in four centres besides the OECS/SC. Plans are to install modems throughout the network, in order to link the databases and enable the centres to download records as well as transmit data by telephone.

The modems are the internal type which require hook-up to the telephone system, but problems have been reported with regard to the installation of direct telephone lines in the remaining centres, for which government approval appears to be difficult in forthcoming.

The microcomputer system used is the single-user variety, but current needs dictate that it should be upgraded to a multi-user system. Since the system requires local input at more than one location, a central database with remote access will make it easier to maintain data integrity.

Multi-user access will be possible via local area networks. With this system, a microcomputer at each user station performs local processing of the materials and shares files among all the other computers that are attached to the network. The coordinating centre computer will be dedicated to the file server role, providing access to all the other machines and files on the network.

In view of the investment of time, effort and money in building up the OESC INFONET database, the mission recommends that full support should be given to ensuring its growth through the provision of additional equipment and enhanced features.

Special attention should be given to ensuring that the database, which is the largest single investment, is properly maintained and backed-up by the most reliable system. Floppy disks are already in use as a back-up option, also we understand that the OECS/EAS has acquired a cartridge disk system.

Consideration should be given to the most practical and cost-effective options, including microfiche, videotape (VIDEOTRAX), cartridge disk systems or optical disk technology, whichever is feasible and affordable.

Sensitivity of the database to power loss is another important consideration, hence power conditioning equipment, such as surge suppression devices, standby and uninterruptible power supply reserve systems, should be considered critical purchase items, particularly in the Caribbean context of the project.

Database Access

Currently, access to the materials in the collections is provided manually. Photocopies are the preferred format used when filling requests for materials. Due to an efficient postal service in the sub-region, mail transmission of documents has been the most common route, although in the relaxed and informal resource-sharing environment which prevails, an unofficial "personal courier" system is often used.

The equipment is in place for online linkages between the two Secretariats, but the EAS is still awaiting telephone connection. To test the feasibility of online data transfer, test usage took place between the OECS/EAS, Saint Lucia Central Library and the G.I.S.

To facilitate the rapid establishment of online access throughout the network, discussions should be held with the responsible government personnel to obtain permission for the installation of the necessary direct telephone lines, if this is a problem, also with the local telephone company for the installation of dedicated lines.

With the gradual emergence of on-line capability on the network, data transmission costs, which have so far been kept within limits insofar as the system is a manual one, will begin to surface. If the centres are charged on a per-minute basis by the telephone companies, online services will be prohibitively expensive.

However, Cable & Wireless has established toll-free, packet switching networks in some countries of the network, which require users to pay no more than the local telephone charge in order to sign on to the service.

The availability of packet in all the project countries would allow INFONET to link with the countries' long distance communications networks and transmit/receive information at a flat rate based on the amount of information sent, instead of paying long-distance charges.

Whether or not to charge fees for online services will also have to be decided in light of connect time, number of items received, whether the system has to pay for use of the public data network, costs of accessing remote databases, etc.

Maintenance of the System

Maintenance of the system- preparing the records, filing, etc. - is done by the documentalist or assistant in each centre. This has been reported to be a time-consuming procedure, particularly in view of the technically complex nature of the work and the need for care and precision which is difficult to achieve in the understaffed work environment of most centres.

The CDS ISIS Data Management software used is adequate for most applications. New fields are being added where necessary to process non-textual data. Prior to the acquisition of the revised version of CDS ISIS (2.3) a large segment of the country collections were duplicated in other databases. However, the new version has facilitated the writing of a duplicate check programme which is now being undertaken.

The desired system for the database has been identified as one which will allow direct public access by end-users. In planning for the future of the network and system, consideration should be given to whether it can develop in this direction, which will bring into play issues such as increase in points of access to the database, training for end- users and the need for more user-friendly software features.

Documentalists reported an increase in requests for more specialized forms of service such as locating strategic information, also extrapolating, summarizing, consolidating and providing analysis and interpretation of the information.

However, due to staff constraints and the lack of full automation, the system is not equipped at present to meet needs for information prepared according to specialized formats,or which has been"massaged" or repackaged.

Requests received suggest that an emerging role for the centres was to present the client with a series of options which went beyond what was requested, thereby increasing, both the value of the service to users and the value of the data retrieved from database searches.

SDI or Current Awareness Services

When the OESC/INFONET network becomes fully automated it will increase its capability for more efficient current awareness/Selective Dissemination of Information(SDI) services which are now done only on a ad hoc and manual basis.

Software features for saving and rerunning services can be investigated, in order to allow the centres design searches for locating information of continuing interest to particular clients and storing the data which is then rerun at a frequency specified by the user, then printed to await collection by the user.

Repackaging of Information

Currently in the network, once the basic "hard data" have been retrieved from the database, they are sent/given to the user. However, the possibility exists for going the extra mile and manipulating the data before presenting them to the user. The acquisition of desktop publishing capabilities and appropriate software will enable the network to enhance the data with graphs, charts and clip-art.

Data retrieved from the database can also be downloaded onto a diskette and edited using word processing software, with due attention given to copyright requirements. Text can be added or deleted, rearranged and summarized at will, offering new and exciting prospects for presenting the user with highly readable, useful data.

As forms of service in the network acquire greater sophistication, OECS/INFONET should explore diverse ways of enhancing its image to the public. Data which have been rigorously and painstakingly searched should not be merely thrust into the hands of patrons, without so much as a brief explanation of the effort involved.

The mission recommends that details of the search - locations accessed, access time, by whom performed and results - should be recorded onto a "search cover sheet" affixed to the document/photocopy given to the client. Further, the system should use standardized folders, imprinted with the network distinctive logo and with different colours denoting the different centres, for transmitting the hard copies.

5.4 Marketing, Promotion and Communication

In light of low user awareness of the network, respondents overwhelmingly concurred with the need for greater publicity and promotion of the system. However, caution was stressed in balancing such initiatives against the adequacy of the centres to cope with increased requests, since once users became aware of the services offered, the centres would be swamped by a barrage of requests.

One reason may be that the centres have not, up to this point, considered their capabilities ready to be advertised. Their reluctance is justifiable since the extent to which the network publicizes its operations will depend on how efficiently services are being performed in the individual centres.

Previous efforts at publicity were noted: These included the Current Awareness bulletins, "INFONET News", open houses, open days, exhibitions mounted at the Heads of Government Conferences, media appearances and articles in journals.

The preparation of customized subject-specific printouts from the database, which was noted at the OECS/EAS, was viewed as a positive image-building tool.

User Education workshops, while occurring on a ad hoc and sporadic basis, were useful avenues for forging communication and collaboration with users, and should be increased and regularized, in view of the high turnover and mobility of staff in the ministries.

The existing user profile system offers a useful departure point for initiating a marketing strategy since it is a means of providing information on the audience. It should be more widely implemented in all centres, following modifications along lines previously described.

Other suggested vehicles for promoting the system which are not currently employed are well-designed brochures, posters, flyers, newspaper stories and advertisements, bookmarks, business cards, bumper stickers, T-shirts and an institutional logo imprinted on letterheads, stationery and all printed materials.

These could be built into the framework of a sustained promotional campaign which would have an incremental effect. In this effort, collaboration with local and regional media is imperative and the services of a professional should be used to design and co-ordinate the entire operation.

These materials could also be used to supplement and reinforce formal presentations at meetings, exhibitions at in-house, local and national events, demonstrations and tours.

A "bone of contention " among network staff has been the marked absence of any mention on INFONET in a promotional video on the Secretariat which was recently produced, despite involvement of staff in planning discussions.

Since the service is computer-based, an attempt should be made to use computerized techniques as far as possible in publicity efforts, e.g. sending messages online to computers in other networks, use of electronic bulletin boards and the formation of computer user groups in the countries to give talks and seminars about the network.

A recommendation has also been made for the purchase of a lap-top computer by the OECS/CS to add a tactile and visual dimension to external demonstrations of database entry and search.

5.4.1 Communication

Much scope exists for establishing continuous communication with the patrons of the centres and inviting their active participation in relevant decision-making on aspects of the centres' operations. Gathering user profiles and obtaining detailed search requests will also help to improve the quality of service rendered and improve communication with clients.

Regular communication should also be maintained between the centre and the government ministry /division to which it is connected. The documentalist should attend meetings and be kept informed of new projects and activities taking place, in order to determine how the centre staff and resources can best serve these ends.

Likewise, the government functionaries should be made aware of new developments in the centre, apprised of new additions to the database, equipment, staff and services and given copies of current bulletins, newsletters, brochures,etc.

5.5 Financial and Budgetary Aspects

This component examined the budget for the OECS\INFONET project and reviewed patterns of expenditure over the past three years of the project's and system's operation, to rationalize costs allocated to various line items and determine whether funding was adequate, realistic and could be justified, in light of emerging needs.

The mission confirmed that the first three years of the project's operation have provided participants with a useful introduction to the management of a computer-based information retrieval service.

In addition, awareness of the range of existing and potential demands made on staff and resources, has been created, resulting in adjustments in and reorganization of resources, both human and financial, for reasons of efficiency and economy.

The issue of cost recovery loomed large in discussions, since, for the first time in the experience of the service providers, a direct rather than indirect and "hidden" cost of providing services could be determined, thereby providing a sound basis for assessing user fees.

As the centres are now poised to embark upon online data search and retrieval and will be faced with a whole gamut of hitherto unknown expenses, realistic appropriations will be both possible and necessary.

The execution of computer-assisted services which the project has facilitated, has opened up new areas on which to base decisions regarding financing of information services operations. Several viewpoints converged on the issue of charging fees to users; some emotional, others political, philosophical or procedural.

On the one hand, there was a marked reluctance or failure to recognize that information is a commodity which attracts a cost and that someone has to pay for it. Allied to this view was the standard library caveat against charging fees, also the argument that the primary end users of the system are already indirectly paying for these services through their member governments who pay membership dues to the Secretariat.

The mission noted that the system has already begun to charge fees to some non-OECS users, on an ad hoc basis, and recommends that, as the demand for service escalates, this issue should be regarded as a feasible financing option.

New directions, already being pursued, indicate that the centres' already scarce financial resources will be severely overstretched, if they must increasingly cater to an unanticipated body of users who require services over and above those rendered to the primary audience.

Where these users are from the public sector, e.g. the growing numbers of secondary school students doing term papers, provision will have to be made for increases to the budget allocated to the documentation centre to cover additional operating expenses, library materials and supplies. This increase should be proportional to the existing and anticipated increase in service delivery.

Where users are from the private sector, fees should be charged based upon the nature of the search performed, its complexity (applying a sliding scale), duration, costs involved i.e. telephone charges, and overheads. Hence, a new budget category - "receipts" - should be added to cover pricing mechanisms applied for services such as photocopying, searches and the delivery and distribution of information products.

Growth and expansion of services will also place heavy demands on the existing human resource base, requiring creation of new posts, The most urgent need identified is funding to support a new post of Documentalist for the OESC/CS.

Responses showed that management of the disposition of project funds to assure quality service and cover all necessary expenses was achieved with difficulty.

Cost control, particularly with regard to information delivery activities and priorities, was a problem, since difficulties were encountered in keeping to a minimum the costs for highly-variable components such as equipment maintenance which, due to the lack of reliable maintenance and repair services, proved repetitive and costly.

Repairs in the case of malfunctioning hardware and software, especially photocopying machines, absorbed savings which had been earned under the equipment budget head, due to the purchase of less expensive models than those for which budgetary appropriations had been made.

Under-budgeting in this area was symptomatic of a general difficulty in recognizing and anticipating factors in the project which could influence the budgetary process.

An effort should be made to anticipate and plan for those budgetary needs, particularly non-capital expenditure items, which are demand-driven, such as the repair and replacement of equipment where services are heavily based on hardware.

Normally, initial purchases of hardware are regarded as a capital outlay falling under implementation costs of the project. However, if equipment is heavily used it might have to be replaced every two years or so, hence there should be an additional line item for equipment under operating costs.

It was also felt that inadequate provisions were made in the project budget for some essential components, such as improving the on-the-job capabilities of staff, for example by attending professional meetings related to the nature of the project.

Hence, an additional line item for attendance of the Network Manager, and other staff as appropriate, at professional meetings, should be put under the travel head.

This is justifiable in light of the fact that the Network Manager was only able to attend a regional meeting on information systems, which was highly relevant, by using the savings incurred on the BVI scholarship fund.

The existing travel allocation for supervisory staff visits to documentation centres also proved inadequate. Provision was made for only 2-3 days at each centre per year which is unrealistic in light of the need for in-depth, ongoing support to the centres, and should be increased.

The budget for training was also found to be insufficient to cover meeting costs such as rental of premises, equipment and incidentals. The budget for this item was overrun by using the savings accruing from scholarships, also from the vacant documentalist post at the EAS.

The fact that savings were obtained from as important an area as training suggests that the issue of scholarship funding is very murky and has to be reassessed in light of appropriate training modalities to fit needs. Similarly, areas of the budget reflecting deficits need to be revaluated in terms of expansion of the revenue base.

5.6 Monitoring and Reporting

5.6.1. Project/System

The mission was not able to identify a systematic plan in place for monitoring project progress during implementation, showing how progress towards objectives was measured, what systems and tools were used for record-keeping and reporting and who was involved in the process.

There was also a marked absence of appropriate forms and procedures for collecting the information on activities, results and resources needed to document progress.

The responsibility for overall internal and ongoing monitoring of project progress is vested in the Technical Advisory Committee (TAC) consisting of the Director-General of the OECS, the Network Manager, the OECS/EAS documentalist and three documentalists from participating national centres who attend the annual meetings on a rotating basis.

The second meeting of the Committee was in June, 1989. We understand that membership has been widened to include selected and potential users, representatives of local telecommunications systems and representatives of organizations whose work has a bearing on OECS/INFONET, in order to permit more comprehensive coverage of relevant issues.

The TAC also has advisory and directing powers and functions, for which it relies extensively upon progress reports prepared by the Network Manager, also, to a lesser extent, on information yielded by committee members.

Project monitoring, as undertaken by the TAC, did not appear to the mission to involve sustained and in-depth formative assessment of the physical progress of the project, of the system it supported and their corresponding financial, human and service components.

Three Project Reports prepared by the Network Manager for March, 1988, September, 1988 and July, 1989, were reviewed. These provided a general overview of progress, rather than specific hard facts drawn from periodic statistics compiled by the participating centres, giving the impression that the Network Manager did not have such data available.

The mission noted in the OESC/EAS a simple system in place for collecting data on activity/use levels in the centre. However, there was no indication that record-keeping, including the gathering of data on activities and continuous day-to-day monitoring of operations to assure quality control, budget accountability and performance, was formalized, developed and used throughout the system.

Scanty or unavailable statistics compiled in the centres was identified as the contributory factor to the lack of analytical interpretation and in-depth reporting on project performance, in which there was a marked absence of quantitative data.

The limited availability of such data affected the ability of both the Network Manager and TAC to make precise measures of project performance and to draw correct inferences which could be applied to forecasting new directions and making mid-stream adjustments in expenditure, staffing and service offerings. These tasks are viewed as vital components of the role of this Committee, and were not, in the mission's opinion, adequately performed.

As services expand, use of reliable, systematic and standardized procedures for tracking and monitoring progress should be integrated into the project's management reporting system. The design and use of standardized service logsheets to gather data on user "demographics", activity patterns and service statistics, such as direct costs of searches performed and comparative workload of the various staff, should be explored.

These records, built up cumulatively and incrementally, will give an in-depth profile of the system's performance, gauging progress achieved, showing whether more effort is needed with particular audiences than with others and providing insight into trends and service needs, also have implications for the marketing of the service as well as financing mechanisms to be considered.

IV. FUTURE DIRECTIONS

6.0 Emerging Priorities

6.1 Future Sustainability of OECS INFONET

The return on the investment made in establishing the network will not be optimized until all the centres in the system are fully equipped, both in terms of human and material resources to maximize the use of the database and share in the products which are generated.

The network must systematically plan for and be supported in fulfilling its mandate and making the desired impact upon beneficiaries at both policy and operational level. This process will be realized only if it is underpinned by a support system that recognizes the developmental nature of the project and makes due allowances for the "teething problems" that occurred during the first three years of its execution.

It should also be borne in mind that the project has embarked upon an ambitious undertaking, various components of which have proved to be inappropriate and unrealistic in terms of their response to new and emerging needs, thereby creating gaps in service offerings. OECS INFONET has reached a stage where it can build on lessons learned and put into place a range of new methods, strategies and activities to ensure the provision of consistently improved levels of performance.

The host institutions, while being committed to the existence and survival of INFONET, are not now in a position to financially sustain the network in the absence of donor funding. Once decisions are made upon which costs can be borne, questions to be addressed will focus on the identification of sources of supplementary funding for maintaining the system adequately. This requires exploring internal as well as external funding sources.

The pursuit of entrepreneurial options by the network, such as the production and sale of a wide range of database products, the implementation of a fee-paying structure for certain categories of user and the future possibility of commercial marketing of the database, warrant serious examination as potential financing mechanisms which could be applied in the long run.

In order to enable the network carry out actions to maintain its viability and dynamism, commitment and support should continue from the donors and host institutions.

The mission, therefore, recommends that OECS INFONET be given the necessary funding by the IDRC, backed by contributions from the Governments, to enable the network execute a second phase of operations, during which it will capitalize upon past achievements and implement concrete, cost- generating actions which will contribute to ensuring its long term sustainability.

6.2 Key Areas Requiring Special Intervention

6.2.1 Target Audience

Data Needs

The mission noted a high regard for the needs of the user throughout the network, coupled with widespread commitment to locating the right information and providing it to the user in a timely manner.

Several persons considered the rapid retrieval of data one of the strong points of the network. However, what was apparent in all centres, particularly the OESC/EAS and St. Vincent centres, was that a small coterie of "regulars" from within the ranks of the target audience repeatedly used the services, but awareness that they existed "under their noses", so to speak, was simply not filtering through into the wider government decision-making community. In fact, the largest body of users was said to be students who had research papers to prepare.

Responses also indicated an increasing need among the chief target audience for macro-economic data for analysis and assessment of development issues and preparation/comparison of country and sector strategies, particularly in numerical format.

Also evident was a need for marketing and commodities information to serve ministries of agriculture and trade. However, in view of the fact that institutions, such as IICA are in the process of establishing their own databases, there is a strong possibility of overlap, hence a high degree of selectivity should be pursued in collections development.

Linkages should, therefore, also be established with a wide spectrum of development agencies and institutions for the purpose of data sharing to reduce the need for acquiring large collections in certain areas and at the same time, help users to locate the correct information for their purposes.

User Profile

The project has made provision for obtaining data on the target audience by means of a standard "User Profile" form which enables the centres identify clearly the different user populations served and the specific requirements of each.

Because of the small size of the centres, this kind of highly personalized form is most appropriate, although there is room for improvement in methodology,content and format. Limitations were noted, primarily, in the gathering on data only on one specific category of user, e.g. as in the case of the OECS/EAS where only staff members were targeted.

This causes the centre to cater only to a small cross-section of its entire user group, resulting in certain unidentified needs being overlooked, such as those of an emerging client population not hitherto served by the system.

Insufficient data are provided to allow an accurate profile to be drawn of the entire user group, also to categorize different user groups by size, composition, specific areas of interest, and levels/ patterns of usage. Accurate predictions could then be made on whether more collections are needed in certain groups than in others, or the linkages among the groups, in terms of kinds of information required.

Feedback Mechanisms

While the user profile has merit in terms of its highly personalized nature, it lacks the capability for tracking changes in user requirements over time and eliciting feedback on a continuous and basis.

Some centres e.g. the OECS/ECS have instituted document search forms which have a space at the bottom for recording user's comments, although this was not the original intention of the space. The fact that users are providing unsolicited feedback suggests that a feedback is warranted in the system and should be standardized and made operational.

Search request forms should also be widely used throughout the system, to define the parameters of each request made and specify the variables which could affect the nature of the search performed.

Direct feedback from users would enable the documentation centres track and measure issues such as the effectiveness of search procedures, the adequacy of the database to meet needs, relevance and utility of the information to cater to changing needs of the client population, and other critical service variables.

It would also help the documentalist assess the efficiency, cost effectiveness and speed of certain kinds of searches compared to others, which will be especially relevant when online access is possible on the system.

User feedback would also provide data for the TAC and support its efforts at monitoring and reporting. Without a two-way flow of information from network to users and vice versa, the service will lose its thrust and dynamism.

Emergence of other Categories of User

The consultant noted that the original project design accomodated only the needs of a narrowly defined target group drawn from within the ranks of the Secretariats and government ministries.

This reflected inadequate perception of the broad information needs existing in the region; the decreasing inability of present information sources to meet those needs; the fact that needs are becoming more specialized; and the escalating demand for information.

OEDCS INFONET should,therefore, give due recognition to the needs of other categories and levels of audience existing in the wider community of member countries.

An important fact was that public libraries tend to acquire their holdings through extra-regional sources, so the materials are not necessarily relevant to the needs of an increasingly more articulate, demanding and intellectually sophisticated body of users.

Their budgets cannot adequately respond to needs that are now being felt within the community from students, researchers, as well as small private sector entrepreneurs who need important "how to" information in order to improve their productive skills and income - generating capacity.

While technocrats were identified as the main audience, the mission maintains that, if the network's services are restricted to this small group, the increasingly strident needs of a substantial segment of the development community will remain unmet. INFONET has to respond to this need if it is to function effectively as an agent in the development process.

A paradox exists in the fact that, while the public's needs remain underserved and they are clamouring for information, the technocrats maintain an indifferent posture towards the centres' services.

As the system becomes more user-oriented, the development of tools to facilitate access by the target audiences, such as well-designed manuals to introduce users to the services and provide answers to questions most commonly asked, cannot be too strongly emphasized. If developed according to a standard format, such manuals could play very important roles in the overall marketing strategy which should be formulated to publicize the network's operations.

6.2.2. Areas of Special Need

Certain centres in the network, particularly St. Kitts and Nevis, encounter problems not experienced in the other centres, which require special attention. These centres do not have established documentation centres, and are operating out of the Public Library and within the severe constraints of insufficient staff, inadequate space and a decentralized collection of documents which are scattered throughout the various Government ministries and Departments.

Despite these problems, the centres actively participates in data sharing and human resources development activities of the network. OECS INFONET has had a very positive impact in these countries, since the St. Kitts centre has been able to respond to many requests for information, However, in common with the other centres, the use made of the service by Government officials leaves much to be desired.

6.2.3 Policy Making Role of OESC INFONET

Within the "Regional Information System Strategy for the Caribbean for the Year 2000" OECS INFONET should an important advocacy role, particularly at the stage where policies are being formulated and projects planned and negotiated. Involvement of key network personnel in the decision-making processes of projects with information components will ensure that this element is identified and addressed at an early stage in the cycle.

6.2.4 Role of Innovation

Worthy of note are specific innovative activities which the system has implemented. These include adaptation of the CARISPLAN format for bibliographical description, in order to facilitate entry of non-book materials into the database. This has created the possibility for the Government Information Services , which currently act as the repositories of audiovisual materials in their countries, to be admitted into the network as full participants.

Individual documentation centres in the network also embarked on a range of innovative projects - in Dominica, for instance, an additional entry point to the database is provided by the publication of the "Annual Abstracts" which is a hard-copy listing of the year's acquisitions.

In the OECS/EAS one of the outputs of the user profiles in a customized print-out of the holdings of the database by subject area prepared for new staff members on the basis of their interests and priority areas as delineated on the user profile.

Notable also, have been the contributions to data to the three regional information systems - CARISPLAN, CAGRIS AND CEIS - and the fact that INFONET has enabled small documentation centres in the countries to build up reciprocal arrangements with these regional systems.

Innovation should continue to play a role in the management of the system and measures, such as cost recovery and new forms and strategies of service provision warrant experimentation.

V. RECOMMENDATIONS

(1) Increase and Intensify Information Support

The provision of information support to major national development activities should be intensified through participation in the network of a critical mass of regional information services and integration of their specialized holdings.

The integration into the network of subject-specific collections and their host institutions should be pursued with vigour.

All centres in the network should be equipped with modems, other telecommunications and computer technologies, and training in their use, to improve their capabilities for engaging in online reciprocal resource-sharing and performing applications for creating non-bibliographic files.

(2) Facilitate Improved Impact on Target Users

The impact of OECS INFONET on target users and on national and regional development should be enhanced through the development of a strategy for marketing and promotion of the network and its services, targeted primarily to the chief audience, also by the application of communication methods and techniques to improve interaction among participants in and beneficiaries of the network.

(3) Strengthen Technical and Operational Capacity

The technical and operational capacity of the network and system should be strengthened through the development of appropriate training and continuing education programmes, also the expansion, and diversification where necessary, of the human resource base.

Training opportunities should be provided to strengthen the skills of the Network Manager in database management, telecommunications and computer applications and networking policies and procedures.

Funding should be sought to create a new post of Documentalist for the OECS/CS.

(4) Enhance Quality and Impact of Products Generated By the Network

Methods for improving the quality and outreach of products generated by the system should be initiated and specialized services provided to meet emerging needs.

The scope of the database should be made more multi-disciplinary, including a wider range of developmental issues and catering to a broader spectrum of users.

More targeted services for meeting the specialized needs of users should be provided, e.g. information analysis, consolidation and repackaging, current awareness/SDI searches and electronic messaging.

Desktop publishing and printing equipment and capabilities should be acquired and a printing unit established for in-house production of network outputs.

(4) Clarify the Role of the Technical Advisory Committee

The project monitoring and advisory powers and functions of the existing Technical Advisory Committee should be expanded through greater involvement in policy, planning and co-ordination. Structure of the Committee should include heads of major information systems in the region, nominees of Ministries of Planning/Finance/Economic Development and Education in member countries and representatives of the private sector, including the media. The Committee should coordinate and monitor the activities and operations of the system and bridge the gap between policy and implementation.

(5) Develop Innovative Approaches to Programme Management

New and innovative approaches to the development, maintenance and management of the network should be sought, including cost recovery mechanisms, creation of a duplicate and supplementary collection(s) on microfiche, and the introduction of new forms of service provision., such as records management, preservation and conservation of holdings.

(6) Provide for Future Long -Term Growth and Expansion of the Network

A clear mission and policy statement for the network should be formulated, clarifying the goal, objectives, audiences, services and specialized functions, within the framework of of a comprehensive national/regional information system which reflects national/regional policies and priorities in information status and delivery.

A long -range plan for the development of the network and system should be developed, including standards, policies and procedures governing all aspects of network operations and a plan for monitoring and management reporting.

To create a congenial and facilitative work environment and permit more effective and efficient service delivery, the physical plant and facilities should be upgraded where necessary, to provide easy accessibility, privacy, adequate work space for both workers and users, access to the database and security for the equipment.

V. ANNEXES

1. REGIONAL AND NATIONAL FOCAL POINTS OF THE NETWORK AND COOPERATING CENTRES

1A. FOCAL POINTS[4]

*OECSCS; Documentation Centre
OECS Central Secretariat, St. Lucia

*OECSEAS; Documentation Centre
OECS Economic Affairs Secretariat, Antigua

*LCCL; The Central Library
Castries, St. Lucia

*LCDOC; Documentation Centre
Ministry of Planning
Castries, St. Lucia

VGP; The Public Library
Roadtown, Tortola
British Virgin Islands

*MSDC; Documentation Centre
c/o Montserrat Public Library
Government Buildings
Plymouth, Montserrat

*VCMF; Documentation Centre
Ministry of Finance
Kingstown, St. Vincent and the Grenadines

GDFIN; Documentation Centre
Ministry of Finance
Government Buildings
St. George's, Grenada

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[4] * denotes centres visited on the mission.

KNBPL; Basseterre Public Library
KNDOC; Basseterre, St. Kitts and Nevis
KNDAG:

KNEVPL; Nevis Public Library
Charlestown, St. Kitts and Nevis

*AGDOC; Documentation Centre
Ministry of Economic Development
St. John's, Antigua

*DMDOC; Documentation Centre
Government Buildings
Roseau, Commonwealth of Dominica

*OECSFU; OECS Fisheries Unit
Cane Garden, St. Vincent and the Grenadines

1B. CO-OPERATING CENTRES

In addition to the above regional and national focal points of OECS INFONET, the following national and regional organizations and information systems have been cooperating in its operations:

Specialized Organizations Within the OECS

Eastern Caribbean States Export Development Agency
(ECSEDA)
Roseau, Dominica

Directorate of Civil Aviation (DCA)
St. John's, Antigua

Sub-Regional Organizations

Windward Islands Banana Grower's Association
(WINBAN)
Castries, St. Lucia

The Pan Caribbean Disaster Preparedness and Prevention Project
(PCDPPP)
St. John's, Antigua

National Institutions

Government Information Services in all participating member countries of the OECS.

ANNEX 2; SCHEDULE OF APPOINTMENTS AND INTERVIEWS

Washington, D.C., U.S.A.

29 January

Mr. Swinburne Lestrade, Executive Director
OECS Eastern Caribbean Investment Promotion Service
(ECIPS), Washington, D.C., U.S.A.

St. Lucia

12 February

Dr. Vaughan Lewis
OECS Director-General

Ms Sandra John
OECS INFONET Network Manager

Ms Dierdre Lewis-Jessamy
OECS Research & Conference Officer

Mr. Brian Challenger
OECS Communications/Policy Officer
and Acting Head, Natural Resources Management Unit (NMRU)

Mr. Augustus Compton
Director, OECS/CS

Mr. Timothy James
Chief Information Officer
Government Information Service (GIS)

Ms Rosemary Harris, Secretary, GIS

Dr. Franz Alexander
Representative
Inter-American Institute for Cooperation in Agriculture
(IICA)

13 February

Mr. Brian Boxill
Director of Statistics
Ministry of Finance

Ms Vonesta Moses-Felix
Documentalist
Ministry of Planning, Personnel Establishment & Training

Ms Juanita Pancham, Librarian
Ministry of Trade

Ms Denise Richards, Administrative Officer

Ms Naula Williams
Chief Librarian\Director of Library Services
Central Library

Mr. David Tucker
Cable & Wireless

Antigua

14 February

Dr. Carlyle Mitchell
OECS/EAS Director

Ms Sue Evan-Wong
Information Specialist
OECS/EAS

Ms Claudette DeFreitas, Documentalist

Ms Janet Williams, Documenation Assistant

Mr. Gregory Rennick, Senior Economist

Ms Hortense Brooks, Tourism Analyst

Mr. Junia Knibbs, Energy Statistician

Ms Yolanda Goodwin
Chief, Statistics & Intelligence

15 February

Ms Sue Evan-Wong

Ms Avna Barronville
Assistant Documentalist
Ministry of Economic Development

Ms Myriam Skerritt
Library Assistant

Dr. George Daniel
Director of Research

Mr. Eden Weston
Director of Planning

Montserrat

15 February

Ms Gracelyn Cassell
Documentalist

Ms Jane Grell
Principal Librarian

Ms Beatrice Allen
Librarian

Ms Teresina Bodkin
Statistician
Ministry of Finance & Economic Development

Ms Rose Willock
Former Programme Manager
Radio Antilles

Mr. Franklin Mitchell
Director of Agriculture

16 February

Visit to the Public Library and Documentation Centre

17 February Sunday

Dominica

18 February

Ms Cornelia Williams
Librarian

Ms Magdalene Robin
Assistant Librarian

Ms Anne Lewis
Documentalist

Ms Paula Giraud
Documentation Assistant

Mr. Eliud Williams
Permanent Secretary
Ministry of Agriculture, Trade & Natural Resources - Agriculture, Lands, Survey, Forestry & Fisheries Portfolio

Mr. Wolsey Lewis
Permanent Secretary, Ministry of Agriculture - Trade, Industry & Tourism Portfolio

Mr. Alick Lazare
Fiscal Adviser, Ministry of Finance

St. Lucia

20 February

Ms Sandra John

Ms Bernadine Louis
Chief Librarian/Documentalist
Tortola Public Library

Dr. Vaughan Lewis

St. Vincent & the Grenadines

21 - 22 February

Ms Pearl Herbert
Documentalist

Ms Cecile Comp
Researcher/Indexer

Meeting with:

Mr. Ashley Caine, Ministry of Agriculture
Mr. Bentley Browne, Central Planning Unit
Ms Cecily Norris, Min. of Foreign Affairs
Mr. Festus Toney, UWI Extramural Dept.
Mr. Joseph Narty, Statistical Office
Mr. Oscar Allen, Walter Rodney Centre

Visit to UWIDITE

Mr. Wilfred Ollivere
Chief Statistician

Dr. Adrian Fraser
Coordinator
Caribbean People's Development Agency(CPDA)

Mr. Winfield Williams
Programmer, CPDA

22 February

Ms Anselma Soso
Permanent Secretary
Ministry of Education, Youth & Women's Affairs

Mr. Daven Joseph
Development Officer
OECS Fisheries Unit

Ms Pearl Herbert

Mr. Randy Cato
Director of Planning
Central Planning Unit

Barbados

23 February

Telephone Conversations with:

Mr. Hubert Williams
Communications Director
Caribbean Development Bank

Mr. Trevor Simpson
Caribbean News Agency, Ltd.

Meeting with:

Mr. Charles Simpson
Caribbean Editor
The Nation, Ltd.

Trinidad & Tobago

25 February

Ms Wilma Primus
Project Coordinator
United Nations Economic and Social
Commission for Latin America and
the Caribbean (UNECLAC)
Trinidad & Tobago

ANNEX 3: EVALUATION CHECKLIST

This checklist was developed by the consultant as an aide-memoire, also a tool to elicit precise responses from persons interviewed and ensure full coverage of the relevant issues, as described in the Terms of Reference for the evaluation. The items are not all-inclusive, were not arranged in any priority, did not follow a particular sequence and were randomly selected in relation to the category(ies) of person being interviewed;

A. Needs Assessment

Need and extent of demand for system and services.
Level/volume/potential of use.
Extent of system's capability to meet identified needs. Reasons for unmet needs and possible solutions.

B. Network Development

Institutional framework. Extent of network's integration into policies, operations of host/parent institution.
Existence of policy/procedures manuals/policy statements/norms,standards, guidelines relating to system's operations.
Telecommunications networking - development of databases, data access, progress in, systems used, problems and constraints and how overcome.
Governance and control. Organizational and management factors. Roles and responsibilities of Network Coordinator, Technical Advisory Committee, National documentalists.
Staffing - how complete. Competence, task specialization, lines of authority/command, assignment/distribution of work responsibilities.
Promotion and Marketing. Public awareness/recognition of network.
Human/motivational factors -staff training, wage structure, career prospects, incentives, project specificity of jobs, security of tenure, factors which could motivate/demotivate staff.
Fiscal aspects. Involvement in institutional goal setting and resource/budget allocation.
Total operational budget and different elements.
Financial sustainability.

C. Audience

Description and needs - size, composition, levels of interest, hierarchy of users by types/levels of use.
Nature of information needs in various parts of the system, linkages among parts and effect of information flow throughout system.
Extent of feedback from audience. Mechanisms.
Criteria for information needs of audience - timeliness, brevity, conciseness, etc.

Confidence of consumer in network as information source and factors which influence audience satisfaction.
Communication flows.
Audience instruction/education/participation in network development.
Advice/instruction of users on use of service components.
Services offered to user categories; priority services, if any and reasons.
Levels of expertise/sophistication of users.

D. Scope and Range of Services

System's capabilities and potential.
information delivery mechanisms.
Liaison with external agencies.
Educational role, opportunities and obligations.
Development of new services/programmes.
Categories of subject areas covered.
Search statistics.

E. Information Resources

Volume, character and quality of information resources.
Selection criteria and process.
Organization and distribution.
Status and justification of computer applications.
Description of systems, compatibility with external systems.
Extent and availability of trained human resources.
Cost factors - purchase/lease, subscription, licensing, membership, online or other fees/charges.
Existence of policies/instructions/guidelines on use of the system.

F. Management System

Existence of management policies, reports, records, statement of purpose, forms for record-keeping , search requests. How designed and how statistics maintained.

ANNEX 4: DOCUMENTS CONSULTED

1. "Project for the Development of the Information Network of the Organization of Eastern Caribbean States (OECS INFONET). (Document no. 3 P-86-0094)

2. "OECS INFONET": IDRC Centre File: 3-P-86-0094.

3. "Report of a Consultancy Mission Undertaken on Behalf of the International Development Research Centre (IDRC)" by Fay Durrant. Georgetown, Guyana, 1985.

4. "A Regional Information System Strategy for the Caribbean for the Year 2000". IDRC/CRDI/CIID, January, 1989. (IDRC Manuscript Report no. 214e).

5. "Brief on Report of Proposed OECS/IDRC Sub-Regional Information Network Prepared by Cornelia Williams, Librarian". 5 February, 1986.

6. "INFONET in the Eastern Caribbean" by Sandra John. Interlending and Document Supply, 17 (1), 1989.

7. "Evaluation of the Caribbean Program IDRC Information Sciences Division, 1970 - 1989" by Fay Durrant. July, 1989.

8. Issues of the INFONET "Current Awareness Bulletin".

9. Issues of "OECS INFONET News".

10. INFONET Project Reports - March, 1988, September, 1988, July, 1989.

11. Report of the 2nd Meeting of the INFONET Technical Advisory Committee, 7 June, 1989.

12. "INFONET Phase II: Draft Proposal". Castries, St. Lucia, OECS Central Secretariat, January, 1990

13. "Report of the Third OECS INFONET Meeting ..."13 - 17 November, 1989.

14. Samples of "User Profile" and "OECS Information Network (INFONET) Calendar of Upcoming Events Data Entry Worksheet."

15. OECS/EAS Budget and Documentation Centre Statistics.

ANNEX 5: SAMPLES OF REQUESTS MADE TO OECS INFONET

- Economic indicators, mainly export and import values and quantities, aggregated (i.e. total OECS) or for individual member states.
- quantities and types of merchandise manufactured in the sub-region.
- manufacturers of types of commodities
- providers of types of services
- bibliographies on specific subjects
- print-outs of the database in specific areas
- data to update listings on OECS member countries in different directories
- OECS data, such as organizational profile, political integration
- projects in progress in the sub-region
- reports, proceedings, resolutions of meetings; feature addresses and speeches.
- directories of personnel in different disciplines, sectors and institutions in the sub-region and region.
- library software and training in its use
- "how to" information e.g. publish a newsletter, install computer software, operate various machines, start a particular business.
- company profiles
- copies of documents in the database