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WHO ORGANIZATION

Regional Office for the Eastern Mediterranean

CENTRE FOR ENVIRONMENTAL
HEALTH ACTIVITIES



CEHA

منظمة الصحة العالمية

المكتب الاقليمي لشرق البحر المتوسط

مركز أنشطة صحة البيئة

CEHA 50

المنظمة العالمية للصحة
المكتب الاقليمي لشرق البحر المتوسط
مركز أنشطة صحة البيئة
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ENVIRONMENTAL HEALTH REGIONAL
INFORMATION NETWORK
(CEHANET)

A STATUS REPORT PREPARED FOR THE
SECOND CONSULTATIVE GROUP MEETING ON CEHANET

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LIST OF ABBREVIATIONS

AACRII	:	Anglo-American Cataloguing Rules, 2nd edition
AHSF	:	Abdul Hamid Shoman Foundation
ALDOC	:	Arab League Documentation and Information Centre, Tunis, Tunisia
ASMO	:	Arab Organization for Standardization and Meteorology
CCF	:	Common Communication Format
CD/ROM	:	Compact Disk/Read Only Memory
CDS-ISIS	:	Computerized Documentation Services/Integrated Set of Information Systems
CEHA	:	WHO's Regional Centre for Environmental Health Activities, Amman, Jordan
CEHANET	:	WHO/CEHA Environmental Health Regional Information Network
CEPIS	:	Pan American Centre for Sanitary Engineering and Environmental Sciences, Lima, Peru
CSA	:	Contractual Service Agreement
CWS	:	Community Water Supply
EH	:	Environmental Health
EMR	:	Eastern Mediterranean Region (of WHO)
EMRO	:	Eastern Mediterranean Regional Office (of WHO)
ENSTINET	:	Egyptian National Science and Technology Information Network
EPA	:	United States Environmental Protection Agency
IDRC	:	International Development Research Centre, Ottawa, Canada
IRC	:	International Reference Centre for Community Water Supply and Sanitation, The Hague, The Netherlands

IRCWD : International Reference Centre for Wastes
Disposal, Switzerland

ISO : International Standards Organization

NFA : National Focal Agency

NCC : National Collaborating Centre

REPIDISCA : Pan American Network for Information and
Documentation in Sanitary Engineering and
Environmental Sciences

RSS : Royal Scientific Society, Jordan

SDI : Selective Dissemination of Information

TAC : Technical Advisory Committee

UNESCO : United Nations Educational, Scientific and
Cultural Organization

WHO : World Health Organization

WS & S : Water Supply and Sanitation

ENVIRONMENTAL HEALTH REGIONAL
INFORMATION NETWORK
(CEHANET)

1. Introduction

Information exchange is one of the major activities of CEHA. In addition to training through national and regional meetings, special studies and research support, technical cooperation and development of training and learning materials. Information exchange serves all CEHA programmes including Community Water Supply and Sanitation, Control of Environmental Health Hazards, Food Safety and Rural and Urban Development. It is realized that the unimpeded flow of relevant information is the life-blood of the development process. This is particularly so in multidisciplinary fields like environmental health. CEHA has therefore given high priority to the development of a comprehensive information unit which will act as the heart of the Environmental Health Regional Information Network (CEHANET), collecting, processing and disseminating technical information between national environmental health agencies and their personnel in the Region.

Preliminary surveys in the Region and the appraisal missions mounted to some EMR countries indicate that some countries possess very good information facilities while in others, information facilities are either nonexistent or, when they exist, are poorly staffed, scattered and operating in virtual isolation. This has the danger of leading to a situation where practicing professionals tend to be unaware of developments away from their own narrow responsibilities. While individuals can and do refer to privileged sources of information such as colleagues or acquaintances abroad when specific problems are being researched, such information is unfortunately lost once its immediate purpose has been served.

To ensure better control over and timely access to all information relevant to activities within the Region related to the broad mission of environmental health, CEHA planned, from its early stages, to establish an information gathering and distribution system called CEHANET.

In 1985 and 1986 two experts, on separate missions, were commissioned to study the information exchange prospects within CEHA. Both experts emphasized the importance of establishing CEHANET and recommended actions to be taken to materialize the information exchange programme in CEHA. The 1985 consultant drafted a Project Document for CEHANET development support, which was later revised and finalized as a proposal submitted in September 1987 to the International Development Research Centre (IDRC), Ottawa, Canada. Contact was made with IDRC and a contract was signed between WHO and IDRC in October and November 1987. In December 1987 CEHA held the Advisory Group Meeting on Exchange of Information in Water Supply and Sanitation. The Group discussed the various issues related to the establishment of the Network

including its development, systems/tools and personnel needs. The Group concludes that: " the most encouraging for establishing the Network is the performance of other regional systems such as REPIDISCA and the offers of support from ALDOC, and of course, the backing of WHO, Geneva.

Even so, the limited resource allocation is a matter for concern.

The distinction between the pilot phase 1988-1989 and a later phase 2 from 1990 is a method of managing this situation. In phase 1, services will be offered in key areas, systems and tools will be created or acquired and training will start. The style for developing the system and the services will be evolutionary.

Of some concern is the institutional strengthening of CEHA, the need to make clear arrangements for the management function, supported by sufficient delegated executive powers to encourage the leadership and drive that will be required to make the CEHANET Project a success, coordinated by WHO.

Phase 1 will also include a planning activity for the professional operation of phase 2. An increased establishment of qualified staff is necessary for this phase. It was a matter of concern to the group that the requisite resources should be provided for this and for the training that is essential for successful operation. Without such provision, the success of the project will be jeopardized".

The First Meeting of the CEHA Technical Advisory Group (TAC) held in December 1987 put great emphasis on strengthening CEHA information exchange capabilities and provision of information services. The First Consultative Group Meeting on CEHANET, (1988) concluded that:

"Those who attended the Advisory Group Meeting on Information Exchange in Water Supply and Sanitation (Amman, 7-10 December 1987) have expressed encouraging remarks on the steps that have materialized in this short period towards the construction of the network. Moreover, the willingness to cooperate has been prevalent amongst the various participants, although the limited resource allocations are still a matter of great concern. Thus the project should start small and develop, provided that adequate executive powers are delegated to CEHANET Coordinating Centre to enable the timely implementation of the set plan."

The Second TAC Meeting concluded that:

"The Committee records its admiration for the work done on development of CEHANET in the Biennium 1988/1989. It fully supports the objectives and activities of the information exchange programme (of CEHA) and is convinced of the great value to the EMR of CEHANET and the services it provides. The Network must be given the resources to continue to develop and particularly provide coverage to all Member States".

CEHANET was formally launched on 1 February 1988, by recruitment of full time staff and running of information services within the framework of CEHANET.

2. CEHANET Structure

CEHANET has been conceived as one of active collaboration within the Region, enabling participant institutions to be both recipients and donors of information. CEHA's role within the Network comprises two functions; as a channel for information from WHO and other relevant bodies in the international community and from other institutions outside the Region; and as the overall coordinating centre for network activities. The Network therefore, has been characterized as a decentralized, mission-oriented regional information network. Within this type of decentralized structure CEHA will act as the CEHANET Coordinating Centre. In each country of the Eastern Mediterranean Region (EMR) there will be one CEHANET National Focal Agency (NFA) and an unlimited number of CEHANET National Collaborating Centres (NCC). NFAs and NCCs are selected according to a set of criteria and assessment of local situation in each EMR country. Each node (component) of the Network will have a specific set of functions to perform according to the Memorandum of Understanding signed between WHO/CEHA and the NFAs and the NCCs.

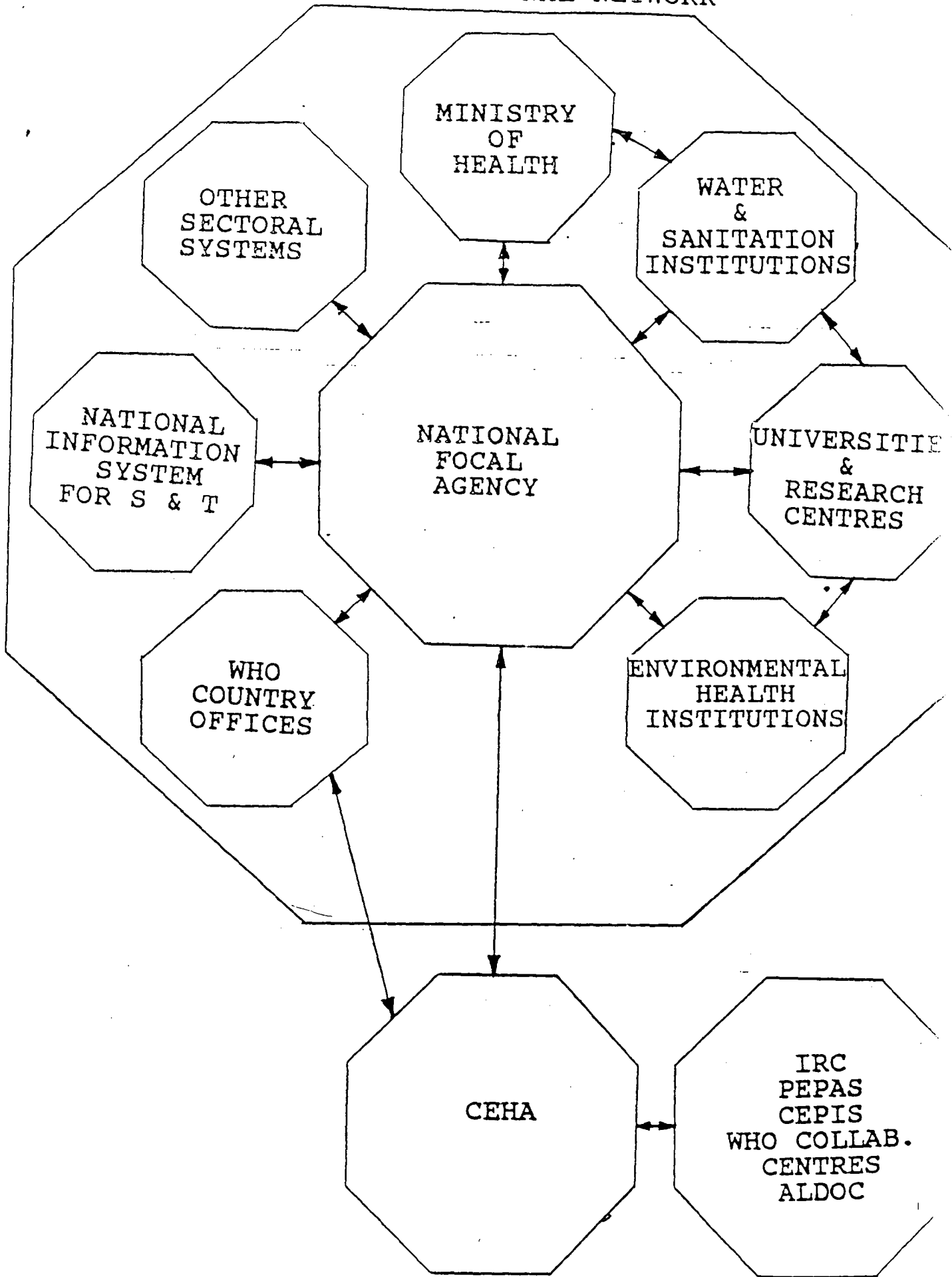
Diagram No. 1 shows CEHANET structure in a typical national situation.

3. Aims of CEHANET

The aims of CEHANET are to:

- a. Promote regional cooperation in information exchange through the adaptation or development of standardized methods and materials developed by intersectoral and regional organizations for selecting, indexing, processing and disseminating information related to environmental health;
- b. Help build the information infrastructure of participating national centres and institutions through training seminars and short courses to enable them to service their own clientele;
- c. Obtain commitments of respective governments that the Network should be based on the participation of national agencies that will be directly involved in its management and operation.

CEHANET
TYPICAL NATIONAL NETWORK



4. Objectives of CEHANET

Within the broad mission of CEHANET, the following objectives are implied:

- a. To identify institutions, and individuals within them, who are in need of timely, appropriate technical information to achieve their research and/or development programme objectives;
- b. To sensitize institutions, and individuals within them, to the benefits of access to the above information, from sources within and outside the Region;
- c. To develop and strengthen the information exchange capacity of national institutions;
- d. To activate a cooperative network, CEHANET, in which participating countries according to a "territorial formula" for sharing work and responsibilities;
- e. To facilitate the provision of information services and document delivery to end-users;
- f. To establish and develop regional bibliographic and non-bibliographic data bases in the field of environmental health.

5. Specific Objectives of CEHANET

The Memorandum of Grant Conditions signed between WHO and IDRC specified a set of objectives to be achieved within the lifetime of the project (2 years). They are:

- a. To establish a CEHANET Consultative Group and convene two consultation meetings;
- b. To strengthen documentation centre staff in modern information handling procedures;
- c. To produce an Arabic version of the "Interwater Thesaurus";
- d. To adapt existing information processing tools and manuals for use by CEHANET;
- e. To compile and publish a directory of institutions and individuals working in the region in the area of water and sanitation;
- f. To publish three issues of a regional environmental health bibliography and provide document delivery service; and
- f. To convene two regional workshops on CEHANET procedures.

6. Subject Coverage of CEHANET

The Network will be developed to provide information in support of WHO programmes in environmental health, namely:

- a. Community Water Supply and Sanitation;
- b. Environmental Health in Rural and Urban Development and Housing;
- c. Health Risk Assessment of Potentially Toxic Chemicals;
- d. Control of Environmental Health Hazards;
- e. Food Safety.

The subject scope of these programmes cover environmental health and sanitation; sanitary and environmental engineering; environmental sciences and related disciplines; water resources and water pollution; water supply, wastewater; solid wastes; soil pollution; air pollution; industrial safety and health, use of pesticides, insecticides, food safety and hygiene, chemical safety etc.

7. CEHANET Users

The target users for the services of CEHANET include the following types of individuals working in the environmental health field:

Policy makers; planners; managers and administrators; engineers and technicians; researchers, academic teachers and students; consultants, officials of finance and technical cooperation agencies; and information specialists.

These users are located in the following types of institutions concerned with environmental health activities:

Legislative bodies; Ministries of Planning; Ministries of Health (Environmental Health Services); Ministries of Public Works (Water Supply and Sanitation Services); Ministries of Environment; Agencies in Ministries with environmental health concerns - Agriculture (e.g., pesticide contamination), Labour (e.g., occupational health); - national agencies for natural resources; regional and municipal sanitation authorities; water commissions and authorities, and science and technology information exchange agencies.

8. Achievements (1 February 1988 to 1 March 1990)

Priority of implementation of CEHANET activities was given to the specific objectives of the project which were stated in the Memorandum of Grant Conditions, the recommendations of TAC, the Advisory Group and CEHANET Consultative Group. The six monthly four progress reports submitted to IDRC in accordance with the Grant Conditions detailed the exact development and achievements of the Project in addition to periodic financial statements attached to them.

8.1 First Consultative Group Meeting on CEHANET, 6-8 June 1988

Preparation for the Meeting started in February 1988. 15 participants attended the Meeting representing Afghanistan, Bahrain, Cyprus, Democratic Yemen, Egypt, Iraq, Jordan, Lebanon, Morocco, Oman, Pakistan, Somalia, Sudan, Syria and Yemen Arab Republic. Ten consultants participated and presented technical papers on national, regional and international information systems. The Meeting discussed 30 papers in its preliminary sessions and four working groups were convened to discuss specific issues: CEHANET services, systems and tools, staffing and training and national collaborating centres.

The Meeting was also able to achieve a number of practical conclusions and recommendations concerning all issues on its agenda.

The final report of the Meeting was finalized by CEHA, approved by EMRO and 110 copies were distributed to concerned agencies and personnel in the Region and beyond.

Recommendations of the Meeting were implemented and follow-up actions were taken.

8.2 CEHA Documentation Unit

It has been recognized that CEHA Documentation Unit is the heart of CEHANET system. CEHA as the coordinating body of CEHANET took this into consideration from the beginning. The Unit's organization and services reflect and affect the Network's status and performance.

8.2.1 Personnel

The overall supervision of the Unit is the responsibility of CEHA Information Scientist who was recruited for the Project since 1 February 1988. A full time Documentalist was also assigned to run the Unit. Temporary staff were occasionally recruited to assist in implementing some of the activities such as indexing, cataloguing, photocopying and batch data entry. A secretary was also assigned for CEHANET who has been assisting the Unit.

8.2.2 Collection Development

The library collection includes over 2500 documents on various environmental health subjects. Selection of documents for CEHA is based on the selection criteria adapted for this purpose. Regular subscription of 50 journals also constitutes a major part of the library collection. The library deposits all EMRO and CEHA publications. Environmental health publications from WHO/HQ are also acquired on a selective basis.

It is planned that CEHA acquires key country reports from all Member States in addition to journals published by environmental health institutions in the Region.

8.2.3 Organization

Modern and standard methods are used to organize knowledge at CEHA Documentation Unit. UNESCO CDS/ISIS software is used for information storage and retrieval. Arabized Interwater Thesaurus is used for vocabulary control. CEHANET Procedures Manual is used for cataloguing and bibliographic control. CWS classification scheme is used for classification. DBase III is used for serials control and journals subscriptions. All documents are now on the data base after being converted from CARDBOX into CDS/ISIS 2.3. Access to documents can be by author(s), title, publisher, keywords and Interwater Thesaurus descriptors.

8.2.4 Equipment and Software

To support the documentation services, the following equipment have been acquired and installed:

Equipment

- Photocopier - A heavy duty photocopier was purchased to support document delivery services and other reproduction activities.
- Micro Computer PS2 -one model 60 and one model 80 systems were installed, totalling a storage capacity of 185 MB.
- An IBM Compatible Televedio System was upgraded to be used by the Documentation Unit.
- Lazer Printer - An HP Lazer-Jet Printer was installed to support document production and master copies of CEHA correspondence, and camera-ready copies for CEHA publications.
- MODEM - A Racal Vadic MODEM was installed to support on-line information retrieval and telecommunication at CEHA.

- Telephone Line - A leased line was given to CEHANET for telecommunications.
- Printers - Three Proprinters were installed in addition to a Quitewriter III.

Software

- VENTURA; for disktop publishing
- Multimate; for wordprocessing
- CDS/ISIS; Data Base management system
- DBase III+; Data Base management system
- CARDBOX+; Data Base management system
- LOTUS 123; spreadsheet
- SAMNA; for wordprocessing
- Advancelink; for telecommunication
- Crosstalk; for telecommunication
- George; for telecommunication
- Displaywrite, for Arabic wordprocessing
- Prestige Elite for Lazer-Jet Printer

8.3 Arabic Interwater Thesaurus

As an information storage and retrieval tool, the Interwater Thesaurus developed by IRC was translated into Arabic. The translation involved the production of a bilingual thesaurus including:

1. Arabization of all descriptors and non-descriptors enlisted in the Interwater Thesaurus;
2. Addition of Arabic non-descriptors relevant to the Arabic descriptors;
3. Addition of new entries in English and Arabic;
4. Translation of scope notes in Interwater Thesaurus;
5. Addition of scope notes in Arabic as required;
6. Introduction in English and Arabic.

Abdel Hamid Shoman Foundation (AHSF) has been assisting CEHA in the production of the Thesaurus on MINISIS. That included typing, data processing and printing of the Arabized version of the Thesaurus. An expert from ALDOC was in a mission to CEHA in November 1989 to assist in the production of the printed version of the Thesaurus and to create the link between CEHA Bibliographic Data Bases and the Thesaurus.

Printed outputs of the Thesaurus are available now including:

1. Arabic/English display
2. English/Arabic display
3. KWOC Index
4. KWIC Index
5. Category List
6. English/Arabic Dictionary
7. Arabic/English Dictionary

The Thesaurus will be published by CEHA and distributed to CEHANET National Focal Agencies and Collaborating Centres. It will then be developed into an English/Arabic Dictionary of Environmental Health terms to be published by CEHA.

The Thesaurus and the Dictionary will undergo continuous revision and updating to cover all areas of environmental health.

8.4 CEHANET Procedures Manual

Two documents (Arabic and English) titled "CEHANET Procedures Manual" were produced. The English version was used during the First Regional Workshop on CEHANET Procedures (24 June to 6 July 1989). The Manual covered the following aspects:

1. Format for data preparation and entry;
2. Rules for data entry according to ISO and ASMO standards;
3. Cataloguing, classification; indexing and abstracting procedures using AACRII, IRC Classification System and Inter-water Thesaurus;
4. Guidelines for interchange of data on CCF;
5. A set of Annexes covering various codes required for proper bibliographic control.

The Manual will be the basis for information exchange between CEHA and the NFAs and NCCs. Training will be supplied for this purpose and copies of the Manual will be distributed accordingly.

8.5 Criteria for Selection of Materials for CEHANET's Data Base

CEPIS was contacted and its permission was taken to adapt their "Criteria" to be used by CEHANET. The document was translated into English (from Spanish) and adapted by CEHA to suit CEHANET purposes. The document was published by CEHA and is being distributed to NFA's and NCC's.

8.6 Regional Data Bases

It has been stated that one dimension of CEHANET is its regional characteristics. Therefore, collection, organization and dissemination of regional information characterize CEHANET activities. Two types of regional data bases have been maintained by CEHA:

8.6.1 Regional Bibliographic Data Bases:

1. Regional Bibliography

Data on reports, articles, studies, theses etc. have been collected from the 23 countries of the Region. The data is held on the computer. A hardcopy was produced in a book form as the first edition of the Environmental Health Regional Bibliography. 500 copies were distributed in the Region. Data for the second edition is being processed using CDS/ISIS. A printed copy of the data base will be published in March 1990.

2. Union List of Environmental Health Journals

Data has been collected from the 8 NFAs on the environmental health journals held in their libraries. A union list will be published giving full bibliographic information on each journal and its holdings in each NFA. This will give the chance to users to know the location of each journal in the Network. Document supply will be the second stage after compiling and publishing the list.

3. Index of five Environmental Health Journals

Based on the data collected as a result of the Document Delivery Services a list of core journals has been made. The most used five journals used by CEHANET user group have been completely indexed. Bibliographic data was added to CEHA Data Base. In addition to that 50 EH journals held at CEHA Library are continuously reviewed and articles relevant to EMR countries and to CEHA priority areas of activities are indexed. Dissemination of information from the content of this data base will be in a current awareness bulletin form.

4. CWS Data Base

CWS Unit at Headquarters supplies CEHA on a regular basis, with its data base on a diskette. This read-only version of the data base has been fully utilized by CEHA. Copies of the diskette have been distributed, through CEHA, to interested environmental health agencies in the Region. A printed copy of the data base is also available at CEHA for consultation.

5. Current Contents of International Environmental Health Data Bases

CEHA contacted three international well-established environmental health data bases through the Royal Scientific Society - Jordan. Their contents since their establishment and up to 31 May 1989 were searched. The result was over 2000 citations/references on environmental health in the 23 countries of the Region. The same data bases (Pollution Abstracts, Environmental Health Bibliography, ENVIROLINE) will be acquired on CD-ROM when available to allow as many searches as needed through CEHANET.

6. CEHA Bibliographic Data Base

This data base includes:

6.1 Full bibliographic data on all documents held at CEHA Library. It has been recently converted from CARDBOX to CDS/ISIS.

6.2 Environmental Health Standards

CEHA has started building up a comprehensive collection of environmental health standards issued by standards agencies in the Region. After their collection, processing and organization in a separate data base, a printed copy will be distributed in the Region.

6.3 Environmental Health Theses

CEHA has started collecting data from environmental health academic institutions on MSc and PhD theses accepted by post-graduate students.

8.6.2 Regional Non-Bibliographic Data Bases

Non-bibliographic data bases are those which hold data of textual, directory or numerical nature. The following data bases have been maintained:

1. CEHA Mailing List

Includes now 1880 entries with full postal address, type of CEHANET services supplied and subject interests. This list is updated continuously through special forms.

2. Environmental Health Professionals Regional Directory

A data base including full biographic data on environmental health professionals in the Region. 500 entries are included now. A printed copy will be published in March 1990.

3. Environmental Health Institutions Regional Directory

A data base including full details on environmental health institutions in the Region. 80 entries are included with details on their management, personnel, activities, facilities and mailing address.

4. Data Base of Participants in CEHA Regional and National Activities

A directory data base including name, country, meeting, date and other details on participants of regional meetings which were held at CEHA and national meetings held in Member States.

5. Data Base of CEHA Consultants

A directory data base including details on short-term consultants and temporary advisors who were recruited by CEHA. Details include name, mission, duration, place of mission, report status and other comments.

6. EMR Statistical Data Base

A numerical data base including statistical data on the 23 countries of the Region. This data was compiled by EMRO and supplied to CEHA for manipulation and use. This data is used as a management tool to support decisions in planning CEHA activities and workplans.

8.7 First Regional Workshop on CEHANET Procedures, 24 June to 6 July 1989

One of the specific objectives of CEHANET Project was to convene two regional workshops on CEHANET procedures. They aimed at creating a common understanding and to supply training to technical personnel working in libraries/documentation units of environmental health institutions. There was a six-month delay in convening this first workshop due to management procedures concerning clearing of a CSA for adaptation of systems and tools.

Participants: Invitations were issued to 16 institutions from the eight countries of the first phase of CEHANET Project (Jordan, Syria, Kuwait, Oman, Egypt, Sudan, Tunisia and Pakistan). One participant was aimed to be from the National Focal Agency (NFA), the other from a National Collaborating Centre (NCC). Twelve participants attended the workshop from seven countries.

Facilitators: Four facilitators conducted the workshop, according to specific set of roles and functions as far as the lectures and the practical training.

Lectures and Training Materials: Lectures were prepared and distributed to participants on their arrival in addition to the manuals and other tools necessary for training.

Practical Training: One of the four facilitators was specially recruited to assist in practical sessions. These sessions were based on using and application of CEHANET Procedures Manual, Interwater Thesaurus, IRC Classification System and CDS/ISIS on micro computers. All issues related to systems and tools were discussed with the support of hands-on experience.

Evaluation: Evaluation of the workshop showed satisfaction and commitment from participants and the need for follow up was expressed.

The Second Regional Workshop is planned for 19-31 May 1990.

8.8 National Training Workshops on CEHANET Procedures

The national training has the following aims:

- Follow-up for the Regional Workshop
- Strengthening of national information exchange capabilities through training
- Create a common background and the application of same procedures for CEHANET
- Discuss on a national scale problems and limitations of CEHANET Procedures
- The Workshop will be a forum for discussing networking in environmental health on a national scale.

It is planned that two workshops will be convened in Sudan and Pakistan in late 1989. Preparation for that has already started.

8.9 CEHANET National Focal Agencies and National Collaborating Centres

The recommendations of First TAC Meeting and of the Advisory Group Meeting and First Consultative Group Meeting on CEHANET have been implemented. Evolutionary development of the Network is the strategy which has been followed.

The first phase of the project covers now eight countries (Jordan, Syria, Oman, Kuwait, Pakistan, Sudan, Egypt and Tunisia). One institution in each country has been identified to act as CEHANET National Focal Agency. Other institutions were also identified to act as CEHANET Collaborating Centres. Annex 1 lists CEHANET National Focal Agencies (NFAs) and the contact persons there. CEHANET Collaborating Centres are the institutions which have environmental health/water supply and sanitation activities and personnel and who would benefit from CEHANET services, according to the proposed Memorandum of Understanding. Eight institutions in the eight countries have been approached to sign the Memorandum of Understanding to act as CEHANET NFAs. Jordan, Egypt, Pakistan, Sudan, Syrian Arab Republic and Tunisia have already signed the Memorandum of Understanding. The work on signing the Memorandum of Understanding with NCCs has started in collaboration with the NFA in each country.

Contact has also been established with some EH and WS & S institutions in the rest of EMR Member States.

8.10 Online Information Retrieval

Arrangements have been made to establish on-line computer link with some institutions. CEHA has direct remote access to data bases and computer files in the following institutions:

1. Abdul Hamid Shoman Foundation Library.
2. Royal Scientific Society and Ministry of Planning, Jordan

3. Egyptian National Science and Technology Information Network (ENSTINET).
4. World Health Organization WHOLIS Bibliographic Data Base, and WHMAIL Electronic Mail System.

Effort is being made now to link CEHA with Kuwait Institute for Scientific Research in Kuwait, King Abdul Aziz City of Science and Technology in Saudi Arabia and ALDOC in Tunisia. Link with commercial international data bases is also being considered.

8.11 Collaboration with Regional and International Information Systems

CEHA has been able to build bridges and forge links with a number of regional and international information systems including:

- International Development Research Centre (IDRC), Ottawa, Canada who is co-funding CEHANET Project for 1988/89
- International Reference Centre for Community Water Supply and Sanitation (IRC), The Hague. Collaboration with IRC resulted in CEHA Arabizing its Interwater Thesaurus. Exchange of documents was also agreed between CEHA and IRC. CEHA used the IRC experts twice. Efforts will continue to build more formal links with IRC.
- United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris. Collaboration with UNESCO, through its various programmes, materialized through
 - Contract to use UNESCO CDS/ISIS package for information storage and retrieval
 - UNESCO Common Communication Format for bibliographic control was used as a basis for CEHANET Procedures Manual
 - UNESCO has published in its UNISIST Newsletter a news item on CEHANET
 - A UNESCO expert participated twice in CEHANET Advisory Group Meeting and the Consultative Group Meeting
 - UNESCO supplies CEHA on a regular basis with its lists of documents and other documentation.

CEHA will negotiate an agreement with UNESCO to allow CEHA to distribute CDS/ISIS to CEHANET NFAs and NCCs on behalf of UNESCO. Training procedures and backup will be worked out.

- Arab League Documentation and Information Centre (ALDOC) Tunis. Collaboration with ALDOC materialized through:

- Contract to use the Arabic version of CDS/ISIS package which is distributed by ALDOC
 - ALDOC's manuals for bibliographic control have been adapted to create CEHANET Procedures Manual
 - ALDOC has published in its ARIS-NET Newsletter a number of news items on CEHANET
 - ALDOC's director participated in CEHANET Advisory Group Meeting and the First Consultative Group Meeting
 - ALDOC has been assisting CEHA in building the Arabized version of Interwater Thesaurus
 - Documents have been exchanged in many occasions between CEHA and ALDOC.
- Abdul Hamid Shoman Foundation (ASHF), Amman. Collaboration with AHSF materialized through:
- Data processing of English/Arabic/French Interwater Thesaurus on their HP3000 MINISIS Package
 - Assist CEHA in transformation of its data base from CDS/ISIS to MINISIS
 - The Foundation's computer system is open for CEHA for remote access through the on-line service
 - Coming issues of the Regional Bibliography and the Union List of Journals will be data processed at the Foundation's system
 - Documents have been exchanged between CEHA and the Foundation
 - One of the Foundation's staff worked as a Temporary Advisor during the First Regional Workshop on CEHANET Procedures
 - CEHA has been using the high quality disk top publishing facilities available at the Foundation.
- CEPIS/REPIDISCA. CEPIS generously agreed that CEHA adapts "Criteria for Selection of Materials for REPIDISCA's Data Base" to be used by CEHANET. The document was translated for the first time, from Spanish into English and then adapted by CEHA to suit CEHANET purposes. A copy of the English translation was sent to CEPIS. REPINDEX, the printed version of REPIDISCA data base was supplied to CEHA by CEPIS. The CD-ROM Version of the data base will also be acquired in due time.
- Other international systems. CEHA has been in contact with EPA, DIALOG, Asbestos Institute, IRCWD and many others.

8.12 Technical Cooperation with National Institutions

For CEHA being in Jordan, it has been consulted in various occasions to give assistance in the information exchange area. Assistance was provided to Water Authority of Jordan, Royal Scientific Society and Ministry of Environment, Municipal and Rural Affairs. In all cases development of an environmental health data base was the issue. Appraisal missions, as part of the technical cooperation were mounted to Syria, Sudan, Tunisia, Pakistan, Oman and Kuwait. EH institutions were visited and prospects for cooperation between CEHA and these centres were discussed.

8.13 Promotion of CEHANET

Promotional activities have been carried out to expose CEHA/CEHANET to the largest possible population of environmental health professionals and interested parties. That was materialized through:

- Printing and distribution of CEHA/CEHANET brochures. Brochures were distributed by hundreds to CEHA visitors and participants of regional courses and were also mailed to addresses in the mailing list
- A paper on CEHANET was presented in most of the regional meetings held at CEHA to make it visible to all concerned
- Demonstrations and tours were arranged to all CEHA visitors to show them CEHANET activities, data bases and services
- News items on CEHANET were published in various professional newsletters detailing its development, services and how to contact it
- It is believed that "services" is the best promotional strategy that CEHANET can follow.

8.14 CEHANET Services

CEHANET services have taken various forms, namely:

8.14.1. Reference services in response to queries from professionals either by mail, telephone, fax or personal visits to CEHA. That included the following:

- Literature searches;
- Specific technical questions;
- Referral services.

- 8.14.2. Current awareness services which CEHANET provides to professionals in anticipation of their information needs and to keep them upto date.

That included the following:

- CEHA Newsletter, previously Technical News Digest. Four issues have been published and distributed to over 1000 addresses.
- "CEHA Contents". A bimonthly current contents of CEHA journals. 700 copies are distributed regularly to EH personnel and institutions in EMR including top and middle management, research and development, training and education, documentation centres and libraries. The list will be continuously expanded and updated according to the growth of CEHA mailing list and demand. Special concern is given to professionals in the eight countries covered by the first phase of CEHANET Project. Annex No. 2 shows the number of issues distributed in EMR.

A questionnaire was distributed in October 1989 to recipients of the "Contents" to evaluate all the aspects of the service (distribution, use, backup and satisfaction). The replies which have returned show great interest, high degree of satisfaction and that the "Contents" has been very useful to professionals in their work and career advancement (full report on this is annex 3).

- Selective Dissemination of Information (SDI). SDI service has started on a trial basis. Short profiles of users have been prepared based on their field of work and functions. According to that a list of documents is prepared on a certain subject, then sent to concerned people. The first batch was on Effluent Reuse. The second on training materials available at CEHA Library. Same will be done on other subjects and will be sent to other professionals. Feedback from users will be essential to developing this service.

8.14.3. Document Delivery Services. The services have taken the following forms:

- Photocopying. As a backup service to "CEHA Contents", CEHA has supplied photocopies of articles requested by EH personnel in the Region. Photocopies were made and dispatched promptly to users, using the pouch service for mailing. CEHANET has been overwhelmed by demand for photocopies from EH individuals and institutions so the number of articles to be supplied in any one's request had to be limited to four. Since launching this service in May 1988, 1315 articles were distributed to 452 professionals in 21 EMR countries (details on number of articles supplied to professionals in each country is in Annex 4). In some cases CEHA declined to supply all the articles requested by a certain information user, due to limitations in funding of this service. CEHA is now considering proposing a charging system for document delivery.

- CEHA's List of Documents for Distribution. A continuously updated list of documents has been sent to EH institutions in the Region. They were supplied with a special order form and were asked to select the titles that they need. Twenty one EMR countries have benefited from this service and copies of documents have been dispatched to EH institutions in these countries upon their request. Since launching CEHANET, 1222 documents were distributed to 296 institutions and individuals in the Region (details on number of documents supplied to institutions in each country is in Annex 5).

Annex No. 6 is a summary of Document Delivery (articles and documents) at four dates (15 September 1988, 15 April 1989 and 7 November 1989 and 27 February 1990).

The data shows the increase in number of documents/articles delivered. Also, all countries of the Region made use of the service at different levels.

9. References

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Distribution of CEHA Contents
in Member States

Country	No. of Copies
Afghanistan	11
Bahrain	20
Djibouti	4
Cyprus	9
Egypt	45
Iran	36
Iraq	71
Jordan	68
Kuwait	20
Lebanon	14
Libya	10
Oman	30
Morocco	27
Pakistan	81
P.D.R. Yemen	21
Qatar	16
Tunisia	19
Saudi Arabia	47
Somalia	9
Syria	60
Sudan	37
United Arab Emirates	6
Yemen Arab Republic	20
Total No Of Copies	681

EVALUATION AND USERS' OPINION

CEHA CONTENTS

INTRODUCTION

CEHA Contents was launched in May 1988. The first issue was distributed to about 150 environmental health professionals. The second issue was distributed to about 250 professionals then it became regular (bimonthly) and since then it has been distributed to about 500 professionals in all EMR countries.

The idea of the "Contents" is to photocopy the tables of contents of the environmental health technical journals which are received by CEHA Library during the two months covered by each issue.

This exercise aims at evaluating the service and find out the positive aspects which should be reinforced and the negative aspects to be avoided in addition to updating the mailing addresses of its recipients. (The questionnaire used is attached).

The questionnaire was distributed along with the October 1989 issue of the "Contents". 400 copies were distributed.

The questionnaire included simple, straightforward questions which required "Yes", "No" answers and some other multiple choice questions. 124 usable questionnaires were returned to CEHA (31%).

ANALYSIS

This analysis is for the questions which have "Yes" or "No" answers or questions which have quantitative implications. Table 1 shows the questions analysed, number of answers (Yes, No, Total and the percentages).

The majority of recipients (51%) of the "Contents" receive it regularly. The irregularity of receiving it is due to mailing and distribution system. In the countries where there are WHO Representative, distribution of the "Contents" is more regular. For other countries it is distributed through the post office.

The majority of recipients (66%) requested articles from CEHA. It is worth noting here that all articles requested were supplied. The total number of articles requested was 405. If all questionnaires were returned the figure would have been about 1306 articles requested. This figure is close to the exact number of articles distributed (1315) since launching the service.

As a current awareness service, one would expect the old issues of the "Contents" to be less used. That was shown in the responses as only 29% of the recipients refer to the old issues. 71% use the current contents.

A most encouraging feature is the dissemination of the "Contents" through colleagues. Data showed that 71% of the recipients circulate the "Contents" to their colleagues in the institution. That has created more demand on document supply and photocopying. Also, more names of new recipients have been added to the mailing list.

When recipients were asked if they would like to continue receiving the "Contents", 100% of them said "Yes" they do. This shows the great interest in the service and its usefulness.

Less than 1% of the recipients said that the contents was not useful. Even so that person said he wants to continue receiving it. 55% said that it is very useful, while 44% thought of it as "useful to a certain extent".

Other questions were asked about the recipients satisfaction with the contents. Overall satisfaction was expressed. The layout of the "Contents" was shown to be less satisfactory than expected. As a result of that printing and production of the "Contents" have changed. A printing press is used now to produce it. Also the number of journals covered in it has increased and has become more regular.

All areas of environmental health are served through the "Contents". Recipients showed that they request articles on water supply, sanitation, solid waste, water quality, waste reuse, pollution control and food hygiene.

The reasons for requesting articles varied, but recipients mostly use the articles to find a solution for a technical problem, to build a background about an environmental health problem and to define a problem or hypothesis. Other reasons were given including:

- preparing for teaching purposes;
- to estimate the cost of a project;
- to find out about legal regulations related to on-going project;
- to find literature about a specific field
- to keep abreast on related field(s) of specialization.

CONCLUSION

"CEHA Contents" has been one of the CEHANET continuous information services. Its initiation came as a result of realizing a need among environmental health professionals in the Region that they need to access technical literature. The "Contents" has been successful in doing so and has proved to be a useful tool to exchange technical literature.

Table 1

		YES	%	NO	%	TOTAL
1.	Do you receive CEHANET regularly?	61	51	58	49	119
2.	Have you requested copies of articles from CEHA?	79	66	41	34	120
3.	Have you ever used or referred to old issues of contents?	33	29	79	71	112
4.	Do you circulate CEHA Contents to other colleagues?	81	71	33	29	114
5.	Do you wish to continue receiving CEHA Contents?	119		-		119
6.	How many articles has CEHA supplied you in response to your requests?					405

		Not useful	%	To a certain extent	%	very useful	%	Total
7.	How useful is CEHA Contents	1	0.9	49	44	62	55	112

USERS' OPINION QUESTIONNAIRE
CEHA CONTENTS

KINDLY ANSWER THE FOLLOWING QUESTIONS AS THOROUGHLY AS POSSIBLE:

1. How many times have you received CEHA CONTENTS?
0 1 2 3 4 5 6 7 8 times (circle one please)

2. Do you receive CEHA CONTENTS regularly?
- yes - no

3. Have you requested copies of articles from CEHA?
- yes - no

If your answer is "yes", how many requests have you made?
.....requests.

If your answer is "no", could you indicate the reasons, please?

1.
2.
3.
4.

4. How many articles has CEHA supplied you in response to your requests?
.....articles.

5. How useful is CEHA CONTENTS to you?
- not useful - to a certain extent - very useful

6. Are you in general satisfied with the following aspects of CEHA CONTENTS?

1. Layout and organization? - yes - no
2. Frequency and regularity of distribution? - yes - no
3. Quality of printing and reproduction? - yes - no
4. The type of materials listed in it? - yes - no
5. The number of journals covered in it? - yes - no
6. Backup services following your requests? - yes - no
7. Time lag between requesting an article and receiving it? - yes - no

7. Have you ever used or referred to the old issues of CEHA CONTENTS?
- yes - no

8. What are the FIVE most important journals that you usually look up their table of contents from CEHA CONTENTS?

1.
2.
3.
4.
5.

9. Do you circulate CEHA CONTENTS to other colleagues?-yes - no
If "Yes", how many other colleagues see it through you?
.....colleagues.

10. Do you have any suggestions to improve the quality,
distribution and backup service of CEHA CONTENTS? - yes - no
Please give details:
.....
.....
.....
.....

11. What are your subject interests which can be served by
materials covered by CEHA CONTENTS?
- water supply - water quality
- sanitation - waste reuse
- solid waste - pollution control
- food hygiene - environmental health
- other (specify please)

12. Why do you use the requested articles, tick as many reasons
as applies to you?
- to define a problem or hypothesis
- to build a background about a problem
- preparing for teaching purposes
- to find a solution for a technical problem
- to estimate the cost of a project
- to find out about legal regulations related to on-going
project
- to find literature about a specific field
- to keep abreast on related field(s) of specialization
- other (specify please)

13. Do you wish to continue receiving CEHA CONTENTS regularly?
- yes - no

KINDLY AMEND YOUR NAME AND ADDRESS TO ENABLE US TO CONTINUE
SUPPLYING YOU WITH CEHANET SERVICES. THANK FOR YOUR COOPERATION.

Name.....
Position.....
Organization.....
Department.....
Address: P. O. Box City Country
Telephone Fax no. Telex Date

Articles Delivered to EH Professionals in EMR

COUNTRY	Organization/Requester *					Total Number of Requesters	Total Number of Articles
	1	2	3	4	5		
Afghanistan			3			3	18
Bahrain	8	6	1			15	47
Cyprus			5			5	10
Djibouti							
Egypt	7	5	2	2	2	18	74
Iran	6	10	2	2	1	21	66
Iraq	40	47	4	3	3	97	209
Jordan	25	33	10	26	4	98	279
Kuwait	3	3	2		1	9	36
Lebanon	4					4	16
Libya							
Morocco	11	13	1			25	91
Oman	3	7	3		2	15	40
Pakistan	5	14	15	1	5	40	138
P.D.R.Yemen	2	4	2			8	33
Qatar	2	1				3	4
Saudi-Arabia	7	5		2	2	16	43
Somalia	1					1	2
Sudan	9	3	1	2	2	17	70
Syria	14	16	6	2	3	41	97
Tunisia	2	3	3			8	20
U.A.E.	1	1	3			5	16
Yemen A.R.	1	1			1	3	6
TOTAL	151	172	63	40	26	452	1315

* 1- Universities & Research Centres 2- Ministries
3- Water Authorities 4- Individuals 5- Others

Documents Distributed to EH Professionals in EMR

COUNTRY	Organization/Requester *					Total Number of Requesters	Total Number of Documents
	1	2	3	4	5		
Afghanistan	2	2	1			5	25
Bahrain	2	2	2		4	10	35
Cyprus	2	2	2		1	7	26
Djibouti	1	1				2	2
Egypt	6	8	5		4	23	42
Iran	5	3	2		2	12	15
Iraq	9	8		1	2	20	74
Jordan	20	14	7	3	6	50	410
Kuwait	8	6			2	16	58
Lebanon	3	2			1	6	20
Libya	2	1	1		1	5	4
Morocco	3	3	2			8	8
Oman	6	5	1		2	14	50
Pakistan	12	11	3		4	30	207
P.D.R. Yemen	3	2	1		3	9	31
Qatar	3	2	1		1	7	9
Saudi-Arabia	2	2			2	6	11
Somalia	1	2			1	4	7
Sudan	7	5	3		3	18	51
Syria	8	6	3	1	3	21	83
Tunisia	6	5	2		2	15	45
U.A.E.		1	1			2	5
Yemen A.R.	2	2	1		1	6	4
TOTAL	113	95	38	5	45	296	1222

* 1- Universities & Research Centres 2- Ministries
 3- Water Authorities 4- Individuals 5- Others

Summary of Document Delivery

COUNTRY	Articles Distributed				Documents Distributed			
	15/9/88	15/4/89	7/11/89	27/2/90	15/9/88	15/4/89	7/11/89	27/2/90
Afghanistan	7	14	14	18		1	22	25
Bahrain		8	36	47	1	26	26	35
Cyprus	7	7	8	10	20	21	21	26
Djibouti								2
Egypt	12	30	54	74		8	8	42
Iran	5	32	47	66		2	2	15
Iraq		93	182	209		25	52	74
Jordan	62	138	227	279	147	357	374	410
Kuwait		28	32	36	9	35	47	58
Lebanon				16		10	10	20
Libya						1	1	4
Morocco		38	62	91		1	1	8
Oman	4	27	36	40	3	26	26	50
Pakistan	13	64	101	138	84	150	179	207
P.D.R.Yemen		9	10	33	2	25	25	31
Qatar		1	1	4		1	1	9
Saudi-Arabia		17	34	43		11	11	11
Somalia				2		2	2	7
Sudan	14	60	65	70	8	27	29	51
Syria	2	9	45	97	7	30	52	83
Tunisia		4	19	20	23	35	35	45
U.A.E.		2	9	16				5
Yemen A.R.		5	6	6		1	1	4
TOTAL	126	586	988	1315	304	795	925	1222

WORLD HEALTH ORGANIZATION

Regional Office for the Eastern Mediterranean

CENTRE FOR ENVIRONMENTAL
HEALTH ACTIVITIES



CEHA

منظمة الصحة العالمية

المكتب الاقليمي لشرق البحر المتوسط

مركز أنشطة صحة البيئة

SECOND CONSULTATIVE GROUP
MEETING ON CEHANET

Amman, 6-8 March 1990

LIBRARY
INTERNATIONAL REFERENCE CENTRE
FOR COMMUNITY WATER SUPPLY AND
SANITATION (ICWSS)

Levels and Application of CEHANET
Procedures Manual

By

Mahmoud Itayem
WHO/Temporary Adviser

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1. INTRODUCTION

CEHANET has prepared basic tools to be commonly applied by its various collaborating centres. Being aware that the sizes of these centres are variant, its Procedures Manual made provisions for different levels of details to suit all cases. But these provisions were in the form of alternatives without stipulation as to what should be done. Consequently, this paper attempts to survey all such cases in the Manual so that you take your decisions concerning the interpretation to be adopted by CEHANET. This is essential for all of us as it guarantees uniformity and harmonization among CEHANET participants.

2. OPTIONS

2.1. Absolute Option

This is defined in the various fields at the field level. In this case, smaller centres, particularly those not adequately manned may not need to include them in their data bases. Among such fields are the following:

Field 21	Record completeness
041	Language of summary
201	Key title
230	Other title
330	Affiliation
480	Monographic series statement
600	Abstract

2.2. Conditional Option

This option has repeatedly occurred in the Manual, where the field will be absolutely optional or even unrequired if a prerequisite is non-existent. The following are the cases for such option:

2.2.1. Exchange

Field 011	Alternative record identifier
020	Source of record
030	Character set used
213	Translated title - Arabic
214	Translated title - English
215	Translated title - French

*Author to decide
which language of
title*

There is a need here, regarding fields 213-215 to instruct the centres that are involved in exchange to which language the title should be translated as it is undesirable to leave this to subjective decisions among the centres.

2.2.2. Existence of other records in the Data Base

Field 013	Related record
802	Number of copies
803	Microform

2.2.3. Entering date in one or more fields

This is the case for entering descriptors where the centre has the option to use one field, namely 620 = Primary Descriptors instead of using the other two fields:

621 Secondary Descriptors
622 Geographic Descriptors

Here, a decision is required to help centres in adopting a uniform indexing policy. Related to this is field 623 = Local Descriptors where indexers are instructed to include here what is required locally but has not been adopted in CEHNET policy for the limitations of the Interwater Thesaurus, namely:

*local to be separate
supra national
= thesaurus*

- a) Geographic descriptors at the sub-national level
- b) Names of bodies (mostly national and, or sub-national)
- c) Names of persons as subjects
- d) Names of projects

3.2. Partial Option

This is the case where the field as a whole is mandatory while one or more of its subfields are optional. Such options are mostly not required for small centres. Of such fields the following may be mentioned:

Field 200 Title

- (b) statement of responsibility
- (l) language of title

Field 250 Title - 2nd level

- (b) statement of responsibility
- (l) language of title

Field 300 Personal Author

- (c) date

Field 310 Corporate Author

- (c) city

Field 320 Meeting
(c) country

Field 350 Personal Author - 2nd level
(c) date
(d) role

Field 360 Corporate Author - 2nd level
(c) city
(e) role

Field 400 Publisher and Place
(c) address
(d) country

Field 440 Physical Description
(c) dimensions
(d) Accompanying material

The last subfield has two other options:

- a) The accompanying material may have its own record, or
- b) The accompanying material may be mentioned in the field 500 (Notes).

3. APPLICATION

The tools should be adopted for proper applications. But there are cases on which some questions need to be answered so that the tools are universally interpreted.

3.1. Serial Accessioning

- a) Is accessioning for volumes or titles?
- b) Is accessioning for multiple or single copies?
- c) How it should be in each case?

3.2. Mixed and shared authorship

If there is more than one author, how are they going to be entered?

- a) All?
- b) All up to a certain number?
- c) The first?

3.3. IRC classification system

- K*
- a) For classifying the collection?
 - b) For published lists?
 - c) For both?
 - d) What about other classification schemes already used in some centres?
 - e) What about centres with no classification and require a general scheme?
 - f) IRC classification system needs revision to cover environmental health adequately:
 - 1) Who is going to do this?
 - 2) Is it to become analytico-synthetic
 - 3) Is the notation to remain Arabic numerals or Indian numerals as well?
 - 4) Is there a need to specify individual countries in the scheme?

It is of vital importance to state here that IRC has authorized any revision or development for the system.

3.4. Indexing and the thesaurus

- a) Field 624 = Proposed Descriptors means that there will be a need for updating and developing the Thesaurus:
 - 1) How are we going to handle proposed descriptors?
 - 2) Will there be a need for a regional committee?
 - 3) If so, how is it going to be formed?
 - 4) What is its code of conduct going to be?
 - K* 5) Is CEHANET authorized to develop the thesaurus without referring to IRC?
 - 6) Will EMR member states or CEHANET be represented in the international committee?
 - 7) If so how will coordination be carried out?
 - 8) What about the actual additions presently made in the Arabic edition of the thesaurus?
 - 9) Who is going to handle translations of added terms?

*incl. to
bring together
committee
sum*

- b) Is indexing going to be:
- 1) In one language?
 - 2) In the language of the text?
 - 3) In one of the languages of the network if in a different language?
 - 4) What about centres not using thesauri?
 - 5) What about centres already using a different thesaurus?
 - 6) What is CEHANET going to do with unindexed materials received from CEHANET centres?

3.5. Abstracting

- a) Are we going to provide abstracts? comprehensively? selectively? How?
- b) What kind of abstracts? indicative? informative?
- c) In what language(s)?

3.6. Subject category

- a) Is the name of category in words or code? or both?
- b) If in words, do we need a controlled list?
- c) If a code, will it be IRC classification code? or what?

*IRC to
bring amendments
together soon*

3.7. Component parts

- a) Is the use of // acceptable, noting that it has been adopted by IFIA?
- b) Are we to mention the abbreviations (vol) and (no) or omit them? This option has been allowed by IFIA.
- c) Are we going to mention the dash (-) after the point(.) or omit it? This option has been allowed by IFIA.

3.8. CEHANET Languages

- a) Is it acceptable to have the three languages (Arabic, English and French) as the official CEHANET languages?
- b) Titles in other languages should be translated:
 - into Arabic?
 - into English?
 - into French?
- c) If not possibly translated, they should at least be transliterated:
 - into Arabic?
 - into English?
 - into French?
 - according to which standards?
- d) Will the names of persons (authors or biographees) be transliterated?

*Standards to
be used for
transliteration:
Ar - Engl - Arabic*

3.9. CEHANET Centre

- a) How will CEHANET Centre receive data from the various participants?
 - copies of input sheets?
 - print-outs?
 - machine-readable form?
 - in the last case who is going to bear the expenses?
 - how frequent despatch should be?

3.10 The Authority File

- a) Do we need one:
 - for names of persons?
 - for names of institution?
 - for names of places?
- b) Is it going to be centralized or decentralized?
- c) Is it going to be manual or computerized?
- d) Who is going to do what?
- e) How to collaborate with others outside CEHANET?
- f) How is it going to be utilized?

4. RECOMMENDATIONS

As it is not desirable to put the answers to the questions stated earlier into the mouths of participants, the recommendations here will be limited to two which will be elaborated upon when the questions are answered:

4.1. CEHANET should prepare a document that contains the interpretations of the consultative group and distribute it among the various centres.

4.2. CEHANET should complete what is decided to be still lacking.



Integration of
CEHANET into WHONET

by

Dr Salah H. Mandil
Director
Division of
Information Systems Support
World Health Organization

March 1990

LIBRARY
INTERNATIONAL REFERENCE CENTRE
FOR DOCUMENTATION
37, AVENUE CLAUDE LOUIS
1201 GENEVE 11, SWITZERLAND

● ●

Integration of another network into WHONET

- Why?

- What pre-requisites?

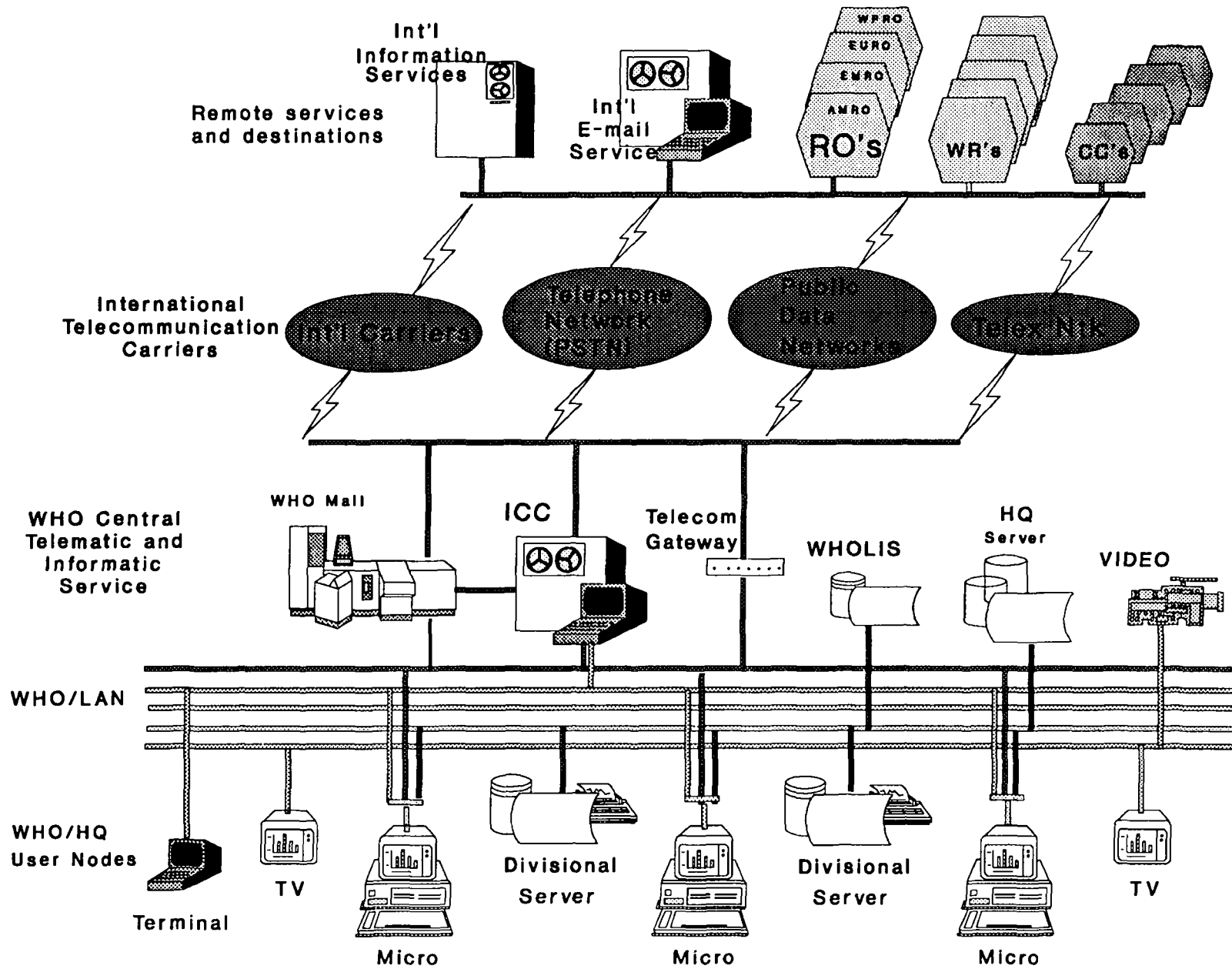
- Costs?

WHY?

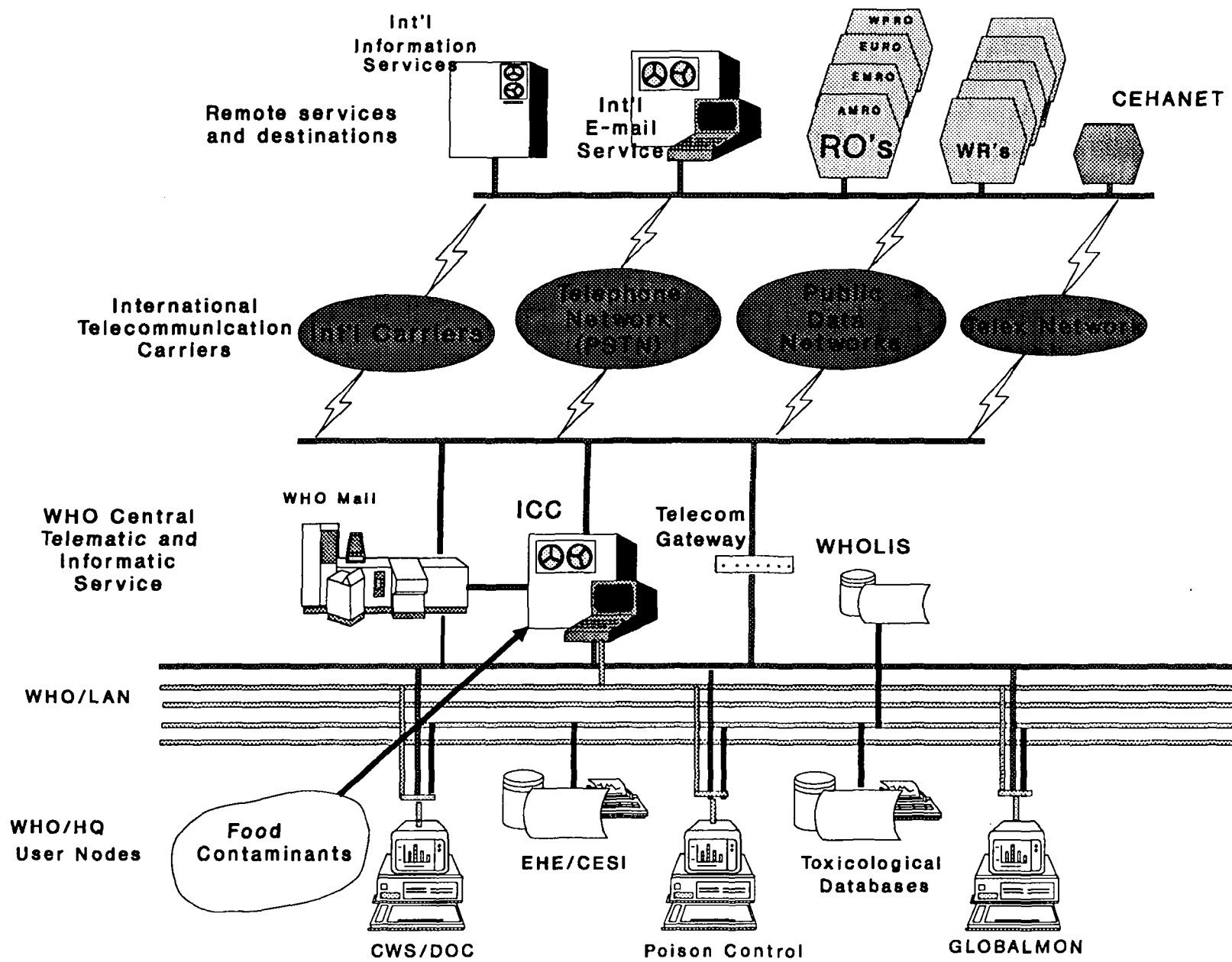
For one or more of following purposes:

- Query & Answer service from specific database
- E-mail
- Bulletin Board and in future, Computer Conferencing
- Transfer of files and documents

WHONET



CEHANET with WHONET



● ●

WHAT are prerequisites to make the "integration"?

- **HARDWARE:** A communication port on your equipment (micro, mini, or mainframe)
 - A communication line and modem, which may be
 - ✓ A dedicated line
 - ✓ A direct dial telephone line
 - ✓ Access to a Public Data Network
 - ✓ Access to Commercial Data Network

- **SOFTWARE:** A Communication software and or a terminal emulator.

- AUTHORISATION from the "owner" of the remote
WHONET service for access and use.

This normally requires:

- ✓ Name, Password, and account number
- ✓ Details for connection e.g.
Telephone number modem types,
PDN number, type of emulation
required, documentation and
guide for using the available
or authorised facilities

Cost Factors

- Communication costs
 - Fixed - one time installation charges, plus/or
- monthly charges
 - Variable - charges based on connect
time only or on connect time and
volume of traffic

- Service charges by WHONET
 - Free, for the time being
 - In future, a charging scheme

How Does an Individual User Access These Services

Two situations

- The user satisfies the 'PRE-REQUISITES'
(equipment, line and authorisation)

- The user is connected to a network, which
satisfies the 'PRE-REQUISITES,'
and which then guides the user
(e.g. through a MENU system) to WHONET

Report by
The scientific & Technical Information
Centre/RSS - CEHA Focal Point

The main reasons for choosing the Scientific and Technical Information Centre (STIC) as the focal point for Jordanian literature on Environmental Health & Sanitation

- A- STIC has been assigned the role of the National Centre for Scientific and Technical Information as part of the National Information system (NIS) of Jordan.
- B- STIC already houses a specialized library in science and technology. The collection includes books, standards, reports, conference proceedings, periodicals, maps, non-print media and CD-ROMS. (70,000 titles)
- C- STIC has established national information data bases (bibliographic and numeric) pertaining to scientific and technological fields and potential including : institutions and personnel working in various fields of science and technology, publications made by Jordanians or on Jordan both locally and externally laboratories workshops, etc.

Within this context, databases that contain publications on EH are readily available in Jordan and are accessible by the public. These databases include information about specialist in the field research in progress , water sanitation measurments and various other information that pertain to EH .

- D- Corodinating/collaborating activities with CEHA included the following activities in chronological order:

- 1- Our head of Acquisitions and Cataloguing Section participated in the "First Regional Workshop on CEHANET Procedures" in Amman, 24 June-6 July 1989 . She was then appointed to be the liaison officer between RSS and CEHA collecting documents relevant to the field of Environmental Health, and disseminating information to users and interested researchers.
- 2- CEHA donated a valuable collection of books on the environment and water sanitation to our library.
- 3- STIC supplied CEHA with a list of bibliography on Environmental Health from local and international databases.
- 4- STIC supplied CEHA with bibliographic data on published and on-going research in Jordan. A large part of this information is available on our National Information Database.
- 5- The union list of periodicals on Environmental Health published by CEHA supplied to STIC will be added to NIS, as soon as possible.
- 6- STIC is helping CEHA build up and update a database of M.SC. & PH.D theses and research papers available in Jordan and at Jordanian Universities.
- 7- CEHA is cooperating with STIC to make available to RSS staff photocopies of periodical articles available at CEHA library upon request .

INFORMATION SERVICES AT STIC / RSS

THE ICSC OFFERS ITS INFORMATION SERVICES THROUGH THE NATIONAL INFORMATION SYSTEM (NIS) WHICH, IN PART, CONSISTS OF THE SCIENCE AND TECHNOLOGY INFORMATION CENTRE (STIC) AT THE RSS AND ITS SISTER CENTRE, THE SOCIO-ECONOMIC INFORMATION CENTRE (SEIC), AT THE MINISTRY OF PLANNING.

THE NIS, IN GENERAL, AIMS AT PREPARING, MANAGING AND COORDINATING ECONOMIC, SOCIAL, SCIENTIFIC AND TECHNICAL INFORMATION PLUS OFFERING INFORMATION SERVICES TO ALL THOSE INTERESTED.

SEIC AT THE MINISTRY OF PLANNING OFFERS THE SOCIO-ECONOMIC INFORMATION ; WHEREAS, STIC OFFERS THE SCIENTIFIC AND TECHNICAL IN ADDITION TO OFFERING INFORMATION SERVICES TO VARIOUS INDIVIDUALS AND INSTITUTIONS.

STIC HAS TWO MAJOR SOURCES OF INFORMATION :

- THE LIBRARY
- DATA BASES

THE LIBRARY:

IT IS THE MAIN SOURCE OF PUBLISHED INFORMATION ON SCIENCE AND TECHNOLOGY. IT PROVIDES SERVICES, MAINLY, TO RSS STAFF AND UNIVERSITY STUDENTS BUT IS STILL OPEN TO THE PUBLIC.

IT OFFERS ANY INFORMATION NEEDED ABOUT THE FOLLOWING SUBJECTS :

- ENERGY (SOLAR AND WIND ENERGY)
- ENVIRONMENT
- HEALTH AND HYGIENE
- CIVIL ENGINEERING AND CONSTRUCTION
- INDUSTRIAL CHEMISTRY
- MECHANICAL ENGINEERING
- MINERAL SCIENCES
- NATURAL SCIENCES AND MATHEMATICS
- COMPUTER AND INFORMATION TECHNOLOGY
- ECONOMY AND ADMINISTRATION
- ELECTRICAL ENGINEERING
- ELECTRONICS
- LIBRARY SCIENCE
- THE HISTORY OF JORDAN AND PALESTINE

THE LIBRARY CURRENTLY CONTAINS 45.000 BOOKS. 1500 LOCAL AND FOREIGN PERIODICALS, 450 MAPS OF THE ARAB WORLD, 350 DOCTORAL AND MASTERS THESES, A COLLECTION OF VALUABLE EDUCATIONAL MICRO-FILMS AND SCIENTIFIC REPORTS FROM ARAB AND INTERNATIONAL INSTITUTIONS. SOME OF THESE INSTITUTIONS ARE :

- NTIS : NATIONAL TECHNICAL INFORMATION SERVICES INSTITUTION OF THE AMERICAN MINISTRY OF TRADE. IT CONTAINS INFORMATION ON AGRICULTURE, MEDICINE, ENGINEERING, INDUSTRY AND OTHER SCIENTIFIC TOPICS.
- RAND : AN AMERICAN INSTITUTION SPECIALIZING IN SCIENCE, TECHNOLOGY AND ECONOMICS.
- DIFFERENT REPORTS ISSUED BY VARIOUS BODIES SUCH AS THE UNITED NATIONS.

DATA BASES :

ANOTHER SOURCE OF INFORMATION IS THE DATA BASES. THEY PROVIDE AUTOMATED INFORMATION SERVICES THROUGH LOCAL AND INTERNATIONAL DATA BASES.

- INTERNATIONAL DATA BASES : (DIALOG, BRS, ORBIT)
THE CENTRE (STIC) CONNECTS DIRECTLY WITH MORE THAN 750 INTERNATIONAL DATA BASES AND OBTAINS THE INFORMATION NEEDED BY RESEARCHERS, SCHOLARS OR THOSE INTERESTED IN VARIOUS SCIENTIFIC AND TECHNICAL SUBJECTS. ALL THIS IS DONE WITHIN MINUTES.
- LOCAL DATA BASES : THEY ARE SET UP ON THE REGIONAL LEVEL AND INCLUDE THE FOLLOWING :
 - THE JORDAN DATA BASE FOR CURRENT AFFAIRS AND JORDAN'S INTERNATIONAL RELATIONS.
 - A DATA BASE OF THE INSTITUTIONS WORKING IN THE SCIENTIFIC AND TECHNICAL FIELDS IN JORDAN.
 - A DATA BASE OF LABORATORIES AND WORKSHOPS IN JORDAN.
 - A DATA BASE OF SCIENTISTS AND TECHNICIANS IN JORDAN.
 - A DATA BASE OF RESEARCH, ARTICLES AND THESES DONE IN JORDAN.
 - A DATA BASE OF RESEARCH, ARTICLES AND THESES DONE ABOUT JORDAN.
 - HOUSING PROJECTS DATA BASE.

LIBRARY
INTERNATIONAL REFERENCE ORGANIZATION
FOR COMMUNITY WATER SUPPLY AND
SANITATION

SECOND CONSULTATIVE GROUP MEETING ON CEHANET

6 - 8 March, 1990

Amman, Jordan

"Environmental Health Information System in Cyprus: Existing
Situation and Proposed Approach"

by

Anastasia Kyriacou, MPH
HEALTH INSPECTOR

Department of Medical and Public Health
Services

M I N I S T R Y O F H E A L T H
NICOSIA, CYPRUS

INTRODUCTION

In Cyprus existing environmental control functions are dispersed among several Ministries, while the primary responsibility for environmental health rests with the Ministry of Health. The Ministry of Health, in close cooperation with the Local Authorities, enforces Public Health Regulations pertaining to environmental health. Other Ministries are also active in the field; the Ministry of Labour and Social Security is responsible for industrial hygiene, while the Ministry of Agriculture and Natural Resources has a special role in the coordination of environmental activities.

The environmental policy of the Cyprus Government emphasizes that environmental control functions should continue to be the responsibility of the Ministries involved. This multi-agency approach to the management of environmental issues may be considered appropriate as long as there is coordinated action and free sharing of information.

The Government of Cyprus is currently preparing comprehensive environmental legislation which is expected, among other things, to strengthen coordination among the Ministries concerned through their representation on the Technical Committee provided for in the Framework Law.

The Environmental Action Plan for Cyprus, a cooperative project of the Republic of Cyprus and the United Nations Development Program (UNDP), prepared in 1987, stressed the need for improved coordination mechanisms. One of the most important elements of coordination identified is INFORMATION.

I. Existing sources of environmental health information

Cyprus does not have at the moment an established national environmental health information system. Information in various forms, from raw data to published documents, is usually circulated from one Ministry to another through the mail. For example, the Ministry of Health conveys the results of a number of established environmental health monitoring systems to the concerned Ministries on a systematic basis. Specifically:-

- 1) Laboratory results from the monitoring of potable water are sent to the various Authorities which are responsible for the distribution of public water supply.
- 2) Laboratory results from the microbiological monitoring of coastal waters, with 145 established sampling stations along the government-controlled coastline, are sent to the Fisheries Department, Ministry of Agriculture and Natural Resources, which is the focal point of Cyprus in the Mediterranean Action Plan for Pollution Control, organized by WHO/UNEP.
- 3) Laboratory results from the monitoring of pesticide residues on fruit and vegetables are sent to the Ministry of Agriculture and Natural Resources, which is the responsible Ministry for registration of pesticides, as well as for the supervision and education of farmers on the correct use of pesticides. The Ministry of Health is responsible for the enforcement of "The Pesticide Residues in Food" Regulations.
- 4) According to the existing Quarantine Law and Regulations the notification of certain communicable diseases is obligatory. Relevant statistical data are sent to WHO, nearby countries, to Local Authorities and other interested parties.

Besides exchange of information through the mail, the Ministry of Health has other sources of information on environmental health, primarily small-unit Libraries in various health-related institutions such as the Main Medical Library at the Nicosia General Hospital, libraries at the Public Health Inspectors' School, the Chief Health Inspector's Office, the Government General Laboratory and other libraries at the District level. Information is also available through the Ministry's official magazine "Health" and health education materials such as pamphlets and other audiovisual aids.

Other Ministries which deal with environmental health issues and/or the environment in general have also stocks of related materials and publications in their Registries and Libraries. Public libraries such as the Library of the Ministry of Education, Municipal and other private libraries, as well as the American and British Council Libraries are also valuable sources of information. The TV, radio, newspaper, and NGO's journals play an important role in the dissemination of information on environmental health issues.

In addition to the above, the flow of information coming from WHO, especially the Regional Office and CEHA, and other International Organizations is vital to covering our information needs, and for this we are grateful.

II. Problems related to the provision of environmental health information

Despite the provision of information from existing facilities through the mail and other channels of communication, such information may not be accessible to all potential users due to lack of an integrated inventory of publications available at the different Ministries and other Organizations. Thus, sources of information may not be fully utilized due to lack of knowledge that such literature exists. Besides, a market analysis of potential users of such information is limited.

Further, each Ministry enriches its library collection quite independently from other Ministries. Considering that Ministries dealing with environmental health issues have closer cooperation with international organizations specific to their field of work, the flow of information may cover specific topics. Depending on the budgetary allocation to the purchase of books and periodicals, the rate of expansion of libraries will also vary.

Lack of knowledge of country-specific and international literature on environmental health would result in missed opportunities to consult relevant literature, and waste in time and/or money through the purchase of publications which may be already available in another Ministry.

So far the input towards establishing an environmental health information system has been limited. However, an in-service seminar for the Ministry of Health personnel on the UNDP/WHO program "Impact and Control of Toxic Chemicals", held in 1989, sensitized the Ministry to the need for establishing an action-oriented National Information System for Toxic Chemicals. This system would entail the creation of a Data Bank and the operation of a Service which would be available on a 24-hr basis to give out information and also deal with emergency situations. However, the financial, human resources and legal aspects of such a program need to be addressed further.

Considering that 1) environmental health monitoring systems need to be improved in order to enrich country-specific information needs that could be easily utilized by policy makers and other users, 2) computer services in the processing of such information have only been recently introduced, 3) training of human resources on the use of computerized systems is required, and 4) financial resources are limited, it would be more feasible for Cyprus to adopt a phased approach in establishing an environmental health information system.

III. Proposed approach to the establishment of an environmental health information system in Cyprus.

The following steps may be taken based on the phased-approach concept:

- 1) Expand/improve environmental health monitoring systems to acquire new information (raw data) based on assessment of information needs.
- 2) Identify users of information through market analysis.
- 3) Transfer raw data to a form that can be readily utilized by users e.g. use software packages to analyze data and present it in summarized form.
- 4) Identify sources of environmental health information e.g. various Ministries, NGO's, International Agencies.
- 5) Create inventory of available information by type (publications, annual reports, maps, audiovisual aids etc) at specified organizations/Ministries.
- 6) Create mechanism to consolidate inventory at the national level.
- 7) Decide on data bases to be automated e.g. country-specific reports by subject.
- 8) Consider type of hardware and software to be used having in mind potential linkage with regional and global systems.
- 9) Train staff to create computerized data bases.
- 10) Write simple User's Guide.
- 11) Improve cooperation with CEHANET and other international information centres.

- 12) Consider linkage to regional and global systems.

References:

1. Sources of Medical and Public Health Services, Ministry of Health, Cyprus.
2. Republic of Cyprus/UNDP. Environmental Action Plan for Cyprus (final draft), 1987.
3. IRC International Water and Sanitation Centre. INFO-IMPACT Report on Working Meeting on Information Exchange for Water Supply and Sanitation, the Hague, 22-24 Sept 1987.

WORLD HEALTH ORGANIZATION (EMRO)
CENTRE FOR ENVIRONMENTAL HEALTH ACTIVITIES, AMMAN
PROJECT NO. ICP/RUD/001/VD.1

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC)
CENTRE FILE: 3-P-87-0108

ESTABLISHMENT OF AN INFORMATION NETWORK (CEHANET)

WORKPLAN

UPDATE: 1 FEBRUARY 1990

COVERING THE PERIOD 1 FEBRUARY 1990 TO 31 JULY 1990

- A. Introduction
- B. Proposed Activities for the Coming Reporting Period
- C. Project Staffing
- D. Financial Plan

Amman, February 1990

FILE: wkpl90

A. INTRODUCTION

This Workplan is proposed to supplement the following project documents:

- (1) Project Proposal, Second Revision, 12 May 1987
- (2) Proposal CEHANET, Final Version, Submitted with IDRC letter of 2 September 1987
- (3) Signed Memorandum of Grant Conditions, Centre File: 3-P-87-0108, October/November 1987
- (4) Establishment of an Information Network (CEHANET) Workplan, prepared 29 March 1988 and the subsequent revisions.

The Project activities have been planned for the next reporting period (1 February to 31 July 1990).

B. PROPOSED ACTIVITIES FOR THE COMING REPORTING PERIOD

In the coming reporting period, the following activities are proposed. CEHANET Workplan, including schedule of various activities, is given in Annex No. 1.

1 Second Consultative Group Meeting on CEHANET, 6-8 March 1990

This is the second of two regional consultation meetings agreed between IDRC and WHO. Eleven participants have been invited representing the CEHANET National Focal Agencies in 11 EMR countries, in addition to experts from IRC, FAO, ALDOC, WHO/HQ. The target date for the meeting is 6-8 March 1990.

2. Second Regional Workshop on CEHANET Procedures, 19-31 May 1990

The purpose of the Workshop is to offer training on CEHANET Procedures to documentalists/librarians working for CEHANET National Focal Agencies and Collaborating Centres. 16 participants will be invited to attend the workshop. Training will cover aspects on:

- Indexing and Abstracting
- Micro-computers in libraries
- Information retrieval packages for micros
- Current awareness services
- CDS-ISIS
- CEHANET procedures

3. Systems and Tools

3.1 Distribution of acquisition and selection manual

"Criteria for Selection of Materials for CEHANET's Data Base" will be distributed to CEHANET NFAs and NCCs and applied during CEHANET training workshops. Distribution will start by mid-February 1990.

3.2 Printing and distribution of Arabic version of Interwater Thesaurus

Arabized Interwater Thesaurus will be tested and 2000 copies will be printed and distributed to EH libraries in the Region. Target date for printing and starting of distribution is 1 April 1990.

3.3 Printing and distribution of CEHANET Procedures Manual

Arabic and English versions of the Manual will be printed and distributed to CEHANET NFAs and will be used in training. English version will be distributed by 1 March 1990. Arabic by 1 May 1990.

4. Environmental Health Regional Directories

4.1 CEHA/CEHANET Mailing List

Work will continue on up dating and revising the Mailing List to serve information exchange and the management at CEHA.

4.2 Environmental Health Personnel Regional Directory

The first edition of the Directory will be published by 1 April 1990. Work will continue to up date it for future editions.

4.3 Environmental Health Institutions Regional Directory

Work will continue to add names and addresses of environmental health institutions from the Region. This will be incorporated in the professionals directory.

5. Environmental Health Regional Bibliographies

The second edition of the Bibliography will be published and distributed before 6 March 1990. The third issue will be published and distributed by 30 June 199

6. Indexing of Environmental Health Journals

Retrospective indexing of EH journals published in 1988 will be done and bibliographic data will be incorporated in CEHA Regional Data Base. A target date to finish this is 1 May 1990. Indexing of current EH journals (issues of 1990 is a continuous process).

7. Union List of Environmental Health Journals held in NFAs

The work has started to collect on a regular basis the environmental health journals published in the Region. Some countries have already responded and supplied CEHA with current and back issues of such journals. Full bibliographic data and holdings of EH journals in libraries of the NFAs have been collected. A special data bases has been designed using MINISIS at AHSF to produce a Union List of EH Journals in CEHANET NFAs. This list will be distributed in a computer print out form. Target date for distribution is June 1990.

8. Microform Reader-printer

CEHA/CEHANET is now considering the purchase of a microform reader-printer for use at CEHA and to serve other national collaborating centres by supplying them with hard copies of microforms. Quotations have been collected and the selection process is under way.

9. Environmental Health Data Bases on CD-ROM

CEHA is considering acquiring a CD-ROM drive and to subscribe to three international commercial data bases specialized in environmental health, namely:

1. Pollution Abstracts
2. Environmental Health Bibliography
3. Enviroline

10. National Training Workshops on CEHANET Procedures

As a follow up on the First Regional Workshop on CEHANET Procedures, it is planned to hold national workshops in two countries (Sudan and Pakistan) of the first phase of the Network. These workshops aim at training as many EH librarians/documentalists as possible. This activity will be done in collaboration with NFAs in the countries. Date are being worked out in collaboration with the concerned agencies.

11. Distribution of CEHA Library Catalogue

Now that all CEHA documents are bibliographically controlled using CDS/ISIS, printed copies of the catalogue with its relative indexes will be distributed to NFAs and NCCs. Centres which have CDS/ISIS or MINISIS will be supplied with the same data base on diskettes to be able to manipulate the data locally. This is a continuous process.

12. CEHANET Information Services

Information services will continue to be supplied by CEHA on a regular basis in addition to the backup services required. that will include:

- CEHA Contents
- CEHA Newsletter
- CEHA Document Delivery
- Selective Dissemination of Information
- Reference Services
- Photocopying Services

13. CEHANET Training Module

The module will consist of printed materials, audiovisual materials and computer diskettes. It will cover all aspects related to CEHANET Procedures, the Interwater thesaurus and CDS/ISIS. A target date to produce a prototype is June 1990.

14. CEHANET Project Document for 2nd Phase

A project document will be prepared, reviewed and submitted to IDRC for possible support for a second phase of CEHANET. The first draft of the document will be presented to the Second Consultative Group Meeting, 6-8 March 1990.

15. CEHANET Final Report

The final report will be prepared to cover the entire project period. It will comprise the following sections:

- Background
- Project Objectives
- Results Achieved
- Activities carried out
- Resources Utilized
- Impact/Outlook
- Recommendations.

Financial statements will be annexed to the final report.

D. PROJECT STAFFING AMENDMENTS

1. Dr Hassan El-Baroudi, Coordinator and Training and Research Officer
devoting 15% of his time to the Project
2. Dr Najeeb Al-Shorbaji, information Scientist, Full-time
3. Mr Mazen Malkawi, Documentalist, Full-time
4. Mrs Janan Nabr, Secretary
5. Mr Imad Bashir, Documentalist, Part-time
6. Mr Ziad Wardat, Driver/Clerk, Part-time

WORLD HEALTH ORGANIZATION

Regional Office for the Eastern Mediterranean

CENTRE FOR ENVIRONMENTAL
HEALTH ACTIVITIES



CEHA

منظمة الصحة العالمية

المكتب الاقليمي لشرق البحر المتوسط

مركز أنشطة صحة البيئة

LIBRARY
INTERNATIONAL REFERENCE CENTRE
FOR COMMUNITY WATER SUPPLY AND
SANITATION (IRC)

SECOND CONSULTATIVE GROUP
MEETING ON CEHANET

Amman, 6-8 March 1990

Proposed Project Document for
Second Phase of CEHANET Project
to be submitted to the International
Development Research Centre

(Preliminary Draft for Internal Discussion)

WORLD HEALTH ORGANIZATION

EASTERN MEDITERRANEAN REGIONAL OFFICE

CENTRE FOR ENVIRONMENTAL HEALTH ACTIVITIES

CEHA

Amman, Jordan

March 1990

FILE: PRODOC90

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LIST OF ACRONYMS

AHSF	:	Abdul Hamid Shoman Foundation
ALDOC	:	Arab League Documentation and Information Centre, Tunis
CEHA	:	WHO's Regional Centre for Environmental Health Activities
CEHANET	:	WHO/CEHA Environmental Health Regional Information Network
CWS	:	Community Water Supply
EHE	:	Environmental Health Programme
EMR	:	Eastern Mediterranean Region (of WHO)
EMRO	:	Eastern Mediterranean Regional Office (of WHO)
EPC	:	Environmental Hazards and Pollution Control
IDRC	:	International Development Research Centre, Ottawa, Canada
X IRC	:	International Research Centre for Community Water Supply and Sanitation, The Hague, The Netherlands
WHO	:	World Health Organization
WWD	:	Wastewater and Drinking Water Decade

INTRODUCTION

1. This phase of the Project is to enable the Centre for Environmental Health Activities (CEHA) of the Eastern Mediterranean Regional office (EMRO) of the World Health Organization (WHO) to develop its Environmental Health Regional Information Network (CEHANET) to expand its services and cover more countries of the Region.

BACKGROUND

2. The goal of CEHA is to promote environmental health through trained and well-informed manpower, overall technical support and cooperation with EMR member states and to accelerate environmental health programme planning and development. This goal is being achieved through various means among them is developing a comprehensive regional information reference centre including wide dissemination of information among national environmental health agencies and their personnel.
3. To implement that CEHA has placed high priority on developing a comprehensive information centre at the heart of a regional environmental health information network, through which information is being exchanged between national environmental health agencies and their personnel.
4. WHO/EMRO approached the International Development Research Centre (IDRC), Ottawa, Canada in 1987 to support EMRO/CEHA to launch CEHANET Project. IDRC accepted the project document proposed by WHO and a Memorandum of Grant Conditions was signed between WHO and IDRC in 1987 by which IDRC would contribute CAD 241,590 while WHO contributed by CAD 548,020. The Memorandum specified the general and specific objectives of the Project and the specific activities which should be accomplished within the life-time of the Project (2 years). The Project was launched on 1 February 1988. An extension of six months was agreed upon between IDRC and WHO to finalize some of the Project activities. The completion date of the Project is 31 July 1990.
5. During its two years of operation CEHANET has been able to implement the objectives which were set out. It concentrated on collecting and disseminating information on water supply and sanitation. Along with that CEHANET has been able to:
 - identify environmental health institutions , and individuals within them;
 - sensitize these institutions and individuals within them, to the benefits of access to technical information, from within and outside the Region;
 - develop and strengthen the information exchange capacity of national institutions;
 - establish a cooperative information network, CEHANET;
 - facilitate the provision of information services and document delivery.

*Approved
(1988)*

6. The aims of the second phase of CEHANET are:

- advance in regional cooperation in information exchange through application of CEHANET procedures and tools, to facilitate the resource-sharing of environmental health information among the countries of the Region. *Project*
- strengthen the information exchange capabilities of environmental health institutions participating in the first and second phase of the project through supply of documents, training of information exchange personnel and equipment. *to be*
- proceed in obtaining commitments of participating countries through the Memorandum of Understanding that the network works through their active input and inter-country communication. *direct*
- increase (broaden) the geographic scope of the project to more countries of the Region.

*Locate and ...
Develop ... from ...*

JUSTIFICATION

7. It is realized from the beginning that the limited financial resources available for the Project would put strains on developing and expanding the system. The First Consultative Group Meeting on CEHANET, June 1988 concluded that:

"The distinction between the pilot phase 1988-1989 and a later phase 2 from 1990 is a method of managing this situation. In phase 1, services will be offered in key areas, systems and tools will be created or acquired and training will start. The style for developing the system and the services will be evolutionary.

Of some concern is the institutional strengthening of CEHA, the need to make clear arrangements for the management of function, supported by sufficient delegated executive powers to encourage the leadership and drive that will be required to make the CEHANET Project a success, coordinated by WHO.

Phase 1 will also include a planning activity for the professional operation of phase 2. An increasing establishment of qualified staff is necessary for this phase. It was a matter of concern to the group that the requisite resources should be provided for this and for the training that is essential for successful operation. Without such provision, the success of the project will be jeopardized."

*...
...
...
...
...*

8. Taking into consideration and guided by the specific activities agreed in the Memorandum of Grant Conditions, the recommendation of the Advisory Group Meeting on Information Exchange in Water Supply and Sanitation (1987), the recommendations of the CEHA Technical Advisory Committee (1987) and the recommendations of the First Consultative Group Meeting on CEHANET (1988), CEHANET Project has been able to achieve the following:
 1. CEHANET has been established as a formal information system. This is characterized by signing of Memorandum of Understanding between WHO/EMRO/CEHA and six National Focal Agencies.
 2. The documentation unit of CEHA which is the coordinating body of CEHANET has been staffed, equipped and organized in a way to serve the network.
 3. CEHANET Consultative Group was formed and held its first meeting in 1988 and the second meeting in 1990. Members of the Group are Heads of the CEHANET National Focal Agencies.
 4. CEHANET arabized the Interwater Thesaurus. Arabic/English and English/Arabic versions are printed. Indexes and glossaries were also produced using MINISIS package. This was done by the combined efforts of CEHA, IRC, ALDOC and Abdul Hamid Shoman Foundation.
 5. CEHANET has developed its systems and tools for acquisition, cataloguing, classification and indexing. CEHANET Procedures Manual (Arabic and English) was developed. Criteria for Selection of Materials for CEHANET Data Base was also developed and published.
 6. Directory of Environmental health institutions and individuals was compiled.
 7. The first issue of the Environmental Health Regional Bibliography was published in 1989 and 500 copies were distributed in the Region.
 8. The First Regional Workshop on CEHANET Procedures was held in 1989. 14 participants (documentalists/librarians) from 7 countries attended.

9. Provision of information services. CEHANET has been able to serve environmental health professionals in all EMR countries. The services and methods initiated are:

- CEHA Contents: a bimonthly current contents of CEHA journals. 700 copies are distributed regularly in the 23 EMR countries;
- Document Delivery Services, including distribution of articles as backup to CEHA Contents and distribution of documents published by WHO, CEHA, EMRO, IRC or other international organizations;
- Selective Dissemination of Information according to profiles of user needs;
- CEHA Newsletter, distributed to about 1000 addressees in the Region;
- Reference Services in response to technical questions and queries from the Region;

10. Establishment, maintenance and development of data bases. Bibliographic and non-bibliographic data bases using CDS/ISIS are run by CEHANET.

9. In conclusion, CEHANET is established and has been visible to environmental health professionals and institutions in the Region. The two-way communication process which has developed between CEHANET and the information users is a trusting one. It is built on a give and take basis. The commitment of the governments of the Region to CEHANET has been materialized through the formation of the network, the demand for more services and the recommendations of the Second CEHA Technical Advisory Committee (1989) which concluded that:

"The Committee records its admiration for the work done on the development of CEHANET in the biennium 1988-1989. It fully supports the objectives and activities of the information exchange programme (of CEHA) and is convinced of the great value to the EMR of CEHANET and the services it provides. The network must be given the resources to continue to develop and particularly provide coverage to all Member States.

It is recommended that:

- i) a detailed cost study be put in hand to consider the financial implications of the rapid development of CEHANET;
- ii) a study be made of a charging system to recover some of the costs of CEHANET from users;
- iii) as soon as practicable CEHA should submit a proposal to IDRC for continued support of the network;
- iv) as additional funds are made available to CEHA during the next biennium that further support for the activities of CEHANET be considered a high priority;
- v) urgent consideration be given to strengthening CEHANET by appointing regular full time staff."

OBJECTIVES

GENERAL OBJECTIVES

10. The general objective of this phase of the Project is to strengthen CEHANET and expand its coverage and services to cover six more countries in the Eastern Mediterranean Region covered by WHO and coordinated by the Centre for Environmental Health Activities (CEHA). K

SPECIFIC ACTIVITIES

+ in case - 1: actual

11. The specific activities over the two years of this phase of the Project will cover the following areas:

1. Training/Meetings

try to transfer

1. convene the CEHANET Consultative Group;
2. convene one regional workshop on CEHANET Procedures;
3. convene national workshops in the countries participating in the first and second phases of the Project;

2. Strengthening of CEHANET Collaborating Centres

1. distribute the Arabized Interwater Thesaurus, CEHANET Procedures Manual and Criteria for Selection of Materials;
2. document supply;
3. technical cooperation and consultation; *- answer build up esp. - tech. use fee.*
4. supply, installation and operation of micro-computers; *- no*
5. electronic networking and telecommunication links;
6. accessibility to regional and international environmental health data bases;
7. supply of CEHANET products and services; *Sach a - spec.*
8. provide information and document delivery services in a current awareness mode and in response to requests from professionals. *9. ~~activity~~ info*

*Must be done
by the end of 1981
Must be done
by the end of 1981
Must be done
by the end of 1981*

3. Strengthening of CEHANET Coordinating Centre

1. computerize CEHANET using MINISIS and form the electronic network and online linkage with the National Focal Agencies; *prepare*
2. produce an Arabic-French version of the Interwater Thesaurus



*minutes X
Health assessment X*

4. Network Products and Services

1. publish an updated version of the Regional Directory of Environmental Health Professionals and Institutions;
2. publish three issues of the Environmental Health Regional Bibliography;
3. compile and publish a union list of environmental health journals held in the CEHANET National Focal Agencies and Collaborating Centres;
4. compile and publish a union list of environmental health documents held in libraries of the CEHANET National Focal Agencies and Collaborating Centres;
5. compile and publish a union list of environmental health training materials;
6. compile and publish a directory on on-going research projects in environmental health;
7. publish CEHA Index on a quarterly basis;

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METHODOLOGY

12. To ensure cooperation, and commitment of all countries of the region and to inform them of the activities of CEHANET over this phase, CEHA will strengthen then the CEHANET Consultative Group and convene a meeting of this group during the second year of the phase. The Group will consist of heads of CEHANET National Focal Agencies. They are CEHA's partners in CEHANET and their participation in decision making and development of CEHANET will be essential.
13. Appraisal missions will be mounted to six EMR countries to inform officials on CEHANET, to study the information exchange capabilities and to identify national focal agencies and collaborating centres.
14. Development of systems, tools and data bases will continue using modern methods of library automation, telecommunications and documentation.
15. Cooperative cataloguing, indexing, classification and bibliographic control of environmental health technical information relevant to the countries of the Region, and provision of regional bibliographic and non-bibliographic data bases.
16. Strengthening of information and documentation infrastructure of CEHANET national focal agencies and collaborating centres through supply of equipment, training and document delivery.

PERSONNEL

17. The following staff will take part in the implementation of the Project:
 - a) CEHA Coordinator will be the Project Manager responsible for general implementation of the Project;
 - b) Information and Technology Transfer Adviser will be the resource person for orienting CEHANET services to meet the technical needs of environmental health in the Region;
 - c) Training and Research Officer will provide guidance to meeting training needs by CEHANET;
 - d) Programme Officer (Information Scientist) will be responsible for general activities of the Project particularly related to development of systems and tools, development of regional data bases and provision of support to participating centres. He will be recruited locally for the Project;
 - e) The Documentalist;
 - f) Systems Analyst/Programmer who will be responsible for the provision of computer facilities and electronic networking;
 - g) Secretaries and the driver/messenger will be made available from CEHA regular staff as and when required; and
 - h) Short-term staff will be recruited as and when needed.

INSTITUTION

18. The Centre for Environmental Health Activities (CEHA), located in Amman, Jordan, is a field technical arm of the Environmental Health Division (EHE) of the Eastern Mediterranean Regional Office of the World Health Organization. CEHA's activities complement ongoing programmes of EMRO's EHE Division (CWS, EPC and WWD). It obtains technical and administrative support from EMRO at all levels.
19. All 23 Member States of the WHO Eastern Mediterranean Region may draw upon the services of CEHA and participate in its activities. The EMRO member states are: Afghanistan, Bahrain, Cyprus, Democratic Yemen, Djibouti, Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen Arab Republic.
20. Eight countries were covered in the first phase: Egypt, Jordan, Kuwait, Oman, Pakistan, Sudan, Syrian Arab Republic and Tunisia. As many as possible of the remaining Member States will be covered in the second phase.

BUDGET

FOR TWO YEARS	WHO	IDRC
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STAFF

Coordinator (15%) and Project Manager

Training Officer (15%)

Information and Technology Transfer Adviser (30%)

Information Scientist (100%)

Documentalist (100%)

Systems Analyst/Programmer(100%)

Driver/Messenger (50%)

Secretary (100%)

TRAINING/MEETINGS

Consultative Group Meeting

Regional Workshop on CEHANET Procedures

National Training Workshops on CEHANET Procedures (6 countries)

Appraisal missions to six EMR countries

EQUIPMENT

Computer Hardware for CEHA

Computer Hardware for National Focal Agencies

Laser Disk Reader
Microform Reader/Printer

FOR TWO YEARS	WHO	IDRC
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RESEARCH EXPENSES

Computer Software

Document Acquisition and Subscriptions

Printing/distributing of systems and tools

Printing/distribution of bibliographic tools

Communication and travel

INFORMATION SERVICE

Periodic publications

Document delivery/photocopying
Computer files (disks/paper)

Total

PROGRAMME SUPPORT COST (13%)

TOTAL