LIMBURGS
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Kenya Marine and Fisheries
Research Institute

KMFRI

Intergovernmental
Oceanographic Commission

Regional Co-operation in Scientific
Information Exchange in the Western
Indian Ocean Region
(RECOSCIX-WIO)

Limburgs Universitair Centrum

RECOSCIX-WIO
ANNUAL REPORT

1995

_1998_

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I. GENERAL INFORMATION

1. Period covered by report: 1 January 1995 to 31 December 1995

2. Project identification:
   Name: **Regional Co-operation in Scientific Information Exchange in the Western Indian Ocean region (RECOSCIX-WIO)**
   Country: **Kenya**
   Co-ordinating institution: **Limburg University Centre (LUC)**
   Universitaire Campus
   3590 DIEPENBEEK (Belgium)
   tel: (32 11) 26.81.21
   fax: (32 11) 26.81.26
   Belgian Project Director: **Prof. Dr. L. EGGHE**, Chief Librarian LUC
   Partner institution: **Kenya Marine and Fisheries Research Institute**
   P.O. Box 81651
   MOMBASA (Kenya)
   tel: (254 11) 475151-5
   fax: (254 11) 472215
   Kenyan Project Director: **Dr. E. OKEMWA**, Director KMFRI

3. Duration: 4 years (with prolonged first year);
   start: 1 August 1991; foreseen end date: 31 December 1995
   On 21 December 1995 a continuation for 3 years (starting from 1 April 1996) was approved by the Belgian Government.

II. PROJECT INPUT

A. Through funds of the Belgian Government

The Belgian project funding is administered by the General Administration for Development Co-operation (GADC = ABOS : Algemeen Bestuur voor Ontwikkelingssamenwerking). Apart from the project funds, an expert is provided through the Flemish Association for Development Co-operation and technical Assistance (VVOB : Vlaamse Vereniging voor Ontwikkelingssamenwerking en technische Bijstand).

1. Finances
   - Total allowance: BFr 14,464,012 (US$ 399,558)
   - Annual allowances: year 1: BFr 7,895,738 (US$ 218,114)
     year 2: BFr 2,827,088 (US$ 78,096)
     year 3: BFr 1,886,482 (US$ 52,113)
     year 4: BFr 1,854,704 (US$ 51,235)

The budget allocation over the years and headings is given in Annex 1.

2. Personnel

- Expert on site: Dr. Peter REYNIERS, project manager, with a VVOB contract from 9 January, 1992, to 31 December, 1995
- Visiting experts: 2; finalisation of the installation of the new server, installation of ASFISIS database system and conversion of the bibliographic database WIOLIB from the MIBIS to the ASFISIS structure: 14 to 24 February 1995, by: Dr. Egbert De Smet (UIA)(for the ASFISIS part; for the report see Annex 8); Mr. Luc Bastiaenssens, systems engineer at the UIA (for the server installation).
  Both visitors also met Dr. Shem Ochuodho in Nairobi on 27 February 1995, to discuss the possibilities for RECOSCIX-WIO to link to the Internet node that the latter was trying to get organised at the time.
- Co-ordination visit: Prof. Dr. Leo EGGHE, Chief Librarian LUC, part-time Professor at the University Institution Antwerp, 13 to 27 February, 1995 (see Annex 7 for his report) and for the final evaluation, from 18 to 22 December, 1995 (see Annex 9 for his report).

3. Funds for operation costs

The following subdivisions are also used as headings in the financial report in Table I and in the budget overview in Annex 1.

- Telecommunication: telephone, telefax, electronic mail (GreenNet), information retrieval from DIALOG databases
- Mailing, including courier services and distribution of newsletter WINDOW
- Reproduction: printing of newsletter WINDOW
- Computer: consumables and maintenance
- Periodicals: starting from 1992 the project is subscribed to the following periodicals through project funds:
  + Bulletin of Marine Science
  + Current Contents - Agriculture, Biology and Environmental Sciences
  + Indian Journal of Marine Sciences
  + Indian Journal of Fisheries
  + Journal of the Marine Biological Association of the United Kingdom
  + Limnology and Oceanography
  + Mahasagar
  + PSZNI - Marine Ecology
  + Nature
  + Science
- Document delivery through the Belgian co-ordinating institution: interlibrary lending requests through the LUC (see Annex 4 for further details)
- Document delivery through other libraries than the LUC (for statistics: see Annex 4)
- Personnel: regional and international travel for RDC staff
- Visits: 2 visiting experts and the Belgian project director
- Training: the second workshop of the project was organised in the fourth year as planned.

TABLE I. FINANCIAL OVERVIEW OF THE FOURTH YEAR OF THE PROJECT (IN BFR)

	RECEIPTS	EXPENSES	BALANCE
1. Equipment			
Photocopier	-	-	-
Software	-	35,030	-35,030
Hardware	-	171,255	-171,255
Total/year	-	206,285	-206,285
2. Operation costs			
Telecommunication	195,686	428,111	-232,425
Mailing	81,920	111,643	-29,723
Reproduction	102,400	87,352	15,048
Computer consumables	160,000	216,016	-56,016
Periodicals	52,500	85,959	-33,459
Doc delivery Belgium	300,000	338,410	-38,410
Doc delivery (other)	262,500	80,004	182,496
Total/year	1,155,006	1,347,495	-192,489
3. Personnel			
Regional travel	-	23,248	-23,248
International travel	-	13,672	-13,672
Total/year	-	36,920	-36,920
4. Visits			
Co-ordinator per diem	102,312	13,669	88,643
Expert per diem	110,000	156,325	-46,325
Travel	-	-	-
Total/year	212,312	169,994	42,318
5. Training			
Internships	-	86,194	-86,194
Travel	-	222,778	-222,778
Workshop	350,000	304,068	45,932
Total/year	350,000	613,040	-263,040
Administration	68,693	72,300	-3,607
Sundry	68,693	78,342	-9,649
GRAND TOTAL/year	**1,854,704**	**2,524,376**	**-669,672**

B. Input by the Kenyan partner institution

1. Personnel
   - Dr. Peter REYNIERS: information services manager and financial manager (see also II.A.2; general management of the RDC and tasks taken from the scientific manager: management of information services; co-ordination of WIODIR and WIOLIB; edition of newsletter; contacts with the nodes of the co-operation; participation in meetings relevant to the project)
   - Mr. Mika O. ODIDO: Local Co-ordinator (due to training abroad and other commitments Mr. Odido could not spend all of his time with the project)
   - Mr. Sam O. NG'ETE: technical manager (management of the computer system; training and assistance on computer related matters in the co-operating institutes; technical aspects of WIODIR and WIOLIB; participation in technical meetings relevant to the project)
   - Mr. Kennedy O. ONYANCHA: librarian (bibliographic information retrieval; follow-up of document requests; WIOLIB database maintenance)
   - Mrs. Jane NZAU: secretary (administration of correspondence and mailing of document requests; data input in WIODIR)
   - Ms. Phyllis MUTERE: DTP (Desk Top Publishing) Manager (preparation of camera-ready copy of the bulletin WINDOW)
   - Ms. Catherine M. KAUMBUTHU: input staff (input in WIOLIB and WIODIR databases)
   - Mr. James Macharia: Library assistent III (processing of document requests, from October 1995)
   - Mr. Michael M. MOSOTI: library assistant (processing of document requests, till September 1995)
   - Mr. Steve WANJAU: photocopier
   - Mr. Willy MWANGI: messenger and assistant photocopier

There is also a close co-operation with the library staff of the partner institution. During the final months of the project the senior librarian, Mr. Lucas KILEMBA, moved to the RDC to prepare himself to co-ordinate the activities after the departure of Dr. Reyniers (end of contract).

2. Infrastructure
   Two offices, a photocopying room, store room and toilet (all together approximately 120 sq. m; the rooms form a unit and before were guest rooms on top of the institute)

C. External contributions

In the past year the RECOSCIX-WIO project received further support from the Intergovernmental Commission of UNESCO (IOC of UNESCO). In 1995 this organisation financially supported the travel of Mr. Bastiaenssens to Mombasa and entered into a contract with the UIA to allow the RECOSCIX-WIO to communicate with the Internet through a connection to this University. It made it also possible for Mr. Kilemba to participate in the bibliography course for ASFA input centres in GOA (India) and in the IAMSLIC conference in Southampton (UK) and to join the library of the Marine Biological

Association in Plymouth (UK) for an internship of one week.

Mr. Onyancha received a GADC grant to participate in the MIST (Management of Information in Science and Technology) course at the Free University of Brussels form December 1995 to March 1996. Earlier in the year - in May - he joined the library of the LUC for an internship of one month (expenses met by the University).

As happened in previous years also in 1995 the project received donation of books and volumes of periodicals by libraries abroad. Even if they are secondhand material, they are of great benefit to the project that is able to fill an increasing number of requests from its own collection.

III. ACTIVITIES AND RESULTS

1. Training

A second workshop in bibliographic database management - the first one was held in August 1992 - was organised from 14 to 18 August 1995. Immediate courses were the change of the database structure of the WIOLIB and the possibility of telecommunication (email) through the server at the RDC. Because this workshop was at the same time a follow-up of the first one - the same participants were invited. There were however, many new faces among the 16 participants coming from 11 institutions from 6 countries in the region.

Much attention was spent on the responsibilities of an ASFA input centre and the ensuing activities. A discussion on the identification and collection of literature relevant for input in the ASFA database filled a session. The participants learned to prepare bibliographic descriptions according to the instructions of the ASFIS (Aquatic Sciences and Fisheries Information System). During the computer sessions the participants used the user-friendly input and output interfaces developed for the ASFISIS system. Also literature searches in the ASFA database on CD-ROM were practiced. The participants were also trained in the use of electronic mail on the server. After the installation of the new server at the beginning of the year the computer in Mombasa could technically function as a node for the region. Messages from institutions in the region that have no access to one of the large networks, could be collected in Mombasa and periodically forwarded to the Internet through the connection to Antwerp. Vice versa messages coming form the Internet could reach the institutions in the region through Antwerp and Mombasa. To make the co-operating institutions aware of this opportunity the participants of the workshop were made familiar with electronic mail on the server. Finally a presentation was made on the IODE and the MIM programmes, two important elements in the activities concerning marine information of the IOC of UNESCO. A summary report of the workshop and the participants list may be found in Annex 6.

2. Services, public relations and follow-up

The core of RECOSCIX-WIO are information services to the aquatic scientists in the Western Indian Ocean region. At the start the project consisted of a co-operation between 16 institutions in 8 countries along the Eastern African coast and the Island States in the region. At the moment there are contacts with about fifty institutions in 11 countries (see list in Annex 2).
Literature searches for the scientists and delivery of requested publications together make the information provision. The information on the region basically exists of a directory of scientists. The project is promoted through a newsletter.

2.1. Information provision

The first step in the information provision is the delivery of literature citations on research topics upon demand. Through a subscription taken in 1994 the project disposes of the ASFA on CD-ROM, but after its selection as ASFA input centre the RECOSCIX-WIO will receive all ASFA information products. In case where the CD-ROM doesn't provide sufficient data the RDC may search the files offered by the DIALOG Information Services to which it is also subscribed.

Table II. Overview of literature searches in the past years

Year	1990	1991	1992	1993	1994	1995
Number of searches	149	61	84	112	102	85
Number of citations	12,575	5,150	6,430	11,598	15,857	13,695
Number of citations/search	84.40	84.43	76.55	103.55	155.46	161.12

Through the document delivery service the scientists are provided with copies of publications they requested, mostly periodical articles. Part of those the RDC is able to take from its own collection. The rest is obtained from co-operating libraries, mostly outside the region, but also some from within the region. In the past year an important step was taken to improve the performance of this service. After the establishment of the direct link between Mombasa and Antwerp (direct in the sense that there is no detour via a commercial network such as GreenNet on OMNET/SCIENCEnet; the use of a (data) communication network such as Kenpac is inevitable) the price that the project pays per information unit dispatched or received, has diminished; in consequence more users could be allowed to use the system and more messages could be sent before the old level of payment was reached. Therefore the RDC now uses email to request documents from co-operating libraries that may be reached by electronic means. The co-operating libraries are also requested to send documents directly to the requesting scientists when they do not reside in Kenya. Both measures should result in a quicker delivery of documents to the requesters. Because those changes only took place in the second half of the year they may not yet show from the figues in Annex 4, where a detailed overview of the document

delivery is given.

No changes were made to the current awareness service in 1995. The contents tables of the periodical issues received in the course of the month, are copied, sorted and collected, and sent to the interested institutions. In the beginning of the year the institutes were requested to renew their interest and indicate which content tables they want to receive (it is understood that they do not ask for periodicals that they have in their own collection). At that occasion some associated institutes newly registered for this service.

2.2. Collection of information

The most important source of information in relation to the region is the directory of researchers in aquatic sciences and fisheries, maintained as a computer file by the project. At the start of 1995 the main part of the database was lost due to computer failure (and unfortunately a backup was not yet available). All available data were re-entered in no time through a collective effort of all staff. The data from this new file were printed out on forms in April and sent to the scientist or institute for checking and updating. In the past year user-friendly input and output interfaces were installed for the WIOLIB (ASFISIS structure). These interfaces, developed by Dr. Egbert De Smet (UIA), maybe adapted for use with all databases in CDS/ISIS. In the second half of the year the modules were modified to fit the WIODIR. By the end of the year a self installing diskette with the database was prepared. With the output module no knowledge of CDS/ISIS is required to consult the database. This means that the scientists themselves now can use the computer file without the intermediation of the CDS/ISIS knowledgeable documentation officer or librarian in his institute.

In the last year of the project also the collective catalogue, the WIOLIB, went through a major change. As was mentioned earlier a new database structure was introduced in view of the selection of the project as regional ASFA input centre. As a consequence (i) the data from the old file had to be converted to the new structure and (ii) there was the need for training for the input staff.

Dr. De Smet took care of the training of the RDC in February, when he installed the software. In August the colleagues of the co-operating institutions were trained at the occasion of the workshop (see III 1.1). Dr. De Smet also performed the conversion of the data. He warned before that the conversion could have some undesired effects because the old and the new database structure were not fully compatible. Upon checking the converted database it became clear for certain types or records data were not transferred to the right fields. This requires time consuming manual correction. Nevertheless it was important enough to switch to the new system. It is the system used by the other ASFA input centres, but more importantly it offers the use of authority files for certain fields, such as authors, periodicals titles, descriptors (picked from a thesaurus) and geographical descriptors. It will however take a serious effort to check and edit the records of the RDC, almost 5000, and of the co-operating institutes, together approximately 2500 records.

2.3. Public relations

The project uses its newsletter to distribute information of general interest and occasionally to promote its activities. In 1995 the newsletter went through a difficult time because of financial and editorial reasons. The Belgian funds allocated to this budget posting were insufficient for the publication of four issues. Therefore additional funds had to be found. After much consideration the printing and distribution of the newsletter was left to the IOC of UNESCO that offered its support. At the other hand the publication process was delayed because of the difficult communication with the chief editor, residing outside Kenya, and because of tardiness in producing the camera-ready copy. By the end of 1995 two issues - June and September, bilingual English and French - were mailed out.

Together with the last issue of 1994 a mailing list update form had been distributed (to all addresses except the scientists in the WIODIR. These ones receive the newsletter because of their appearance in the directory). As a result the mailing list - for this free newsletter was reduced to almost half of its former length because numerous addresses failed to return the form (see Annex 5 for more details on the geographical distribution of the newsletter).

For visitors to the partner institutions a tour through the institute always includes a presentation of the project at the RDC. Sometimes visitors come for RECOSCIX-WIO itself.

In the past year the following visitors were received (in chronological order):
- Ms. R. De Bondt, Ms. S. Matthys, Mr. K. Millis and Mr. Y. Samyn, biology students at the Free University of Brussels (VUB; Belgium);
- Dr. N. Gatei, Centre Director KMFRI, Nairobi (Kenya);
- K. Mavuti, Head Department of Zoology, University of Nairobi (Kenya);
- Prof. Dr. R. Van Hagen, Fulbright Lecturer, University of Asmara (Eritrea);
- Mr. W. Goetstouwers, Permanent Secretary LUC, Diepenbeek (Belgium);
- Dr. J. Withrow, Dr. H. Dooley, Dr. M. Brown; Resource persons and participants of the Ocean-PC workshop organised by KMFRI and IOC of UNESCO, Mombasa (Kenya);
- Mr. D. Molderez, BADC, Brussels (Belgium);
- Mr. J. Moulin, Belgian Embassy, Nairobi (Kenya);
- The Deputy Prime Minister and the Minister of Sciences of the People's Republic of China;
- Dr. Mrs. E. Goyvaerts, MBA student, Antwerp (Belgium);
- Dr. W.A. Overholt and Ms. M. Bonheiden, ICIPE, Nairobi (Kenya);
- Mr. R. Valbueno, Columbian biology student on internship with the Kenya Wildlife Services, Mombasa (Kenya);
- Three South African participants of the FISA Symposium, Nairobi (Kenya);
- Prof. Dr. P. De Wilde, Deputy Vice Chancellor VUB; Prof. Dr. M. Van Molle, Head Co-operation Development VUB; Prof. Dr. H. Eisendrath, Dean Faculty of Sciences, VUB, Brussels (Belgium);
- Dr. M. Ntiba, Department of Zoology, University of Nairobi (Kenya);
- Ms. S. Drouilh, email consultant, Nairobi (Kenya);

- Dr. Mrs. H. Oyieke, Biodiversity Centre, National Museums of Kenya, Nairobi (Kenya)

IV. THE FUTURE

The project has come to an end on 31 December 1995[1]. This does however not mean that RECOSCIX-WIO ceases to exists. Too much investment has been made to let this happen.
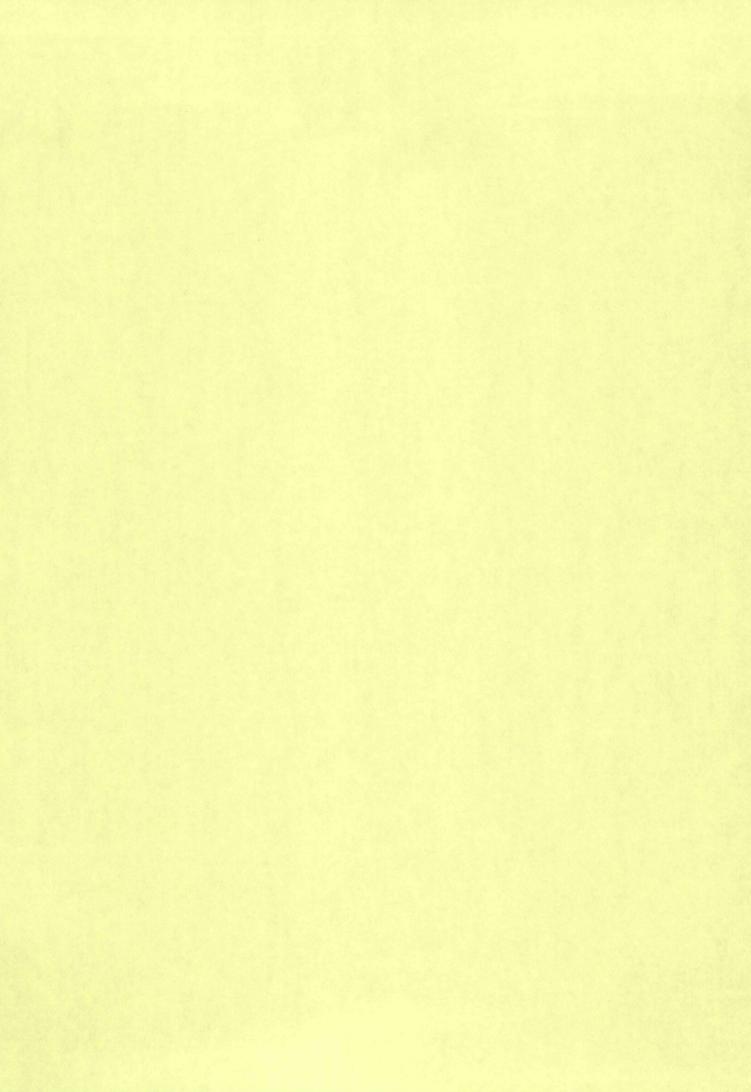
Several library staff and documentation officers, from the partner institution as well as from the co-operating institutions, have obtained a sufficient knowledge of CDS/ISIS and of cataloguing through the training programme of the project. Moreover, user-friendly interfaces developed by Dr. De Smet of the UIA (Belgium), have been implemented with all CDS/ISIS databases during the last year. So a sound basis is in place for a continued development of the project's databases. Everything depends now on what these librarians and documentation officers are going to do with the acquired knowledge and what opportunity they are going to get from their institutes.

There is however a slight uncertainty concerning the local user support for CDS/ISIS. Nobody has come forward to wholeheartedly claim the task of CDS/ISIS specialist. Some capacity building has been done, but that will only be known when the local expertise is put to the text by some major problem.

And then there is the issue of telecommunication. During the last year scientist have learned to communicate through email and get hooked to it. Others have come back with this knowledge from oversees training and want to continue to communicate electronically with their colleagues abroad. The equipment is there; so is the software, but how long will the funds last to pay for the costly communication line each month?

Over the years RECOSCIX-WIO has gained a reputation, not only in the region, but also outside. It would be a pity if all the efforts spent over the years, in time would go to waste, because no support is found to continue the activities[1]. In addition to the Belgian support, much support was given by IOC of UNESCO. It is expected that IOC will continue its efforts in the future.

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[1] A continuation for 3 years was approved on 21 December 1995. It will start on 1 April 1996. We will report on it in the annual report of 1996

ANNEX 1. PROJECT BUDGET (IN BFR)

YEAR	1991/92	1993	1994	1995	TOTAL
1. Equipment					
Photocopier	300,000				300,000
Software	1,870,000				1,870,000
Hardware	1,890,000				1,890,000
Total/year	4,060,000				4,060,000
2. Operation costs					
Telecommunication	436,800	349,440	244,608	195,686	1,226,534
Mailing corresp.	160,000	128,000	102,400	81,920	472,320
Reproduction	200,000	160,000	128,000	102,400	590,000
Computer consumables	160,000	160,000	160,000	160,000	640,000
Periodicals	52,500	52,500	52,500	52,500	210,000
Doc delivery Belgium	900,000	600,000	450,000	300,000	2,250,000
Doc delivery (other)	525,000	350,000	262,500	262,500	1,400,000
Total/year	2,434,300	1,799,940	1,400,008	1,155,006	6,789.254
3. Personnel					
Regional travel	160,000		160,000		320,000
International travel	55,000		55,000		110,000
Total/year	215,000		215,000		430,000
4. Visits					
Coordinator per diem	76,734	76,734	76,734	102.312	332,514
Travel	55,000	55,000	55,000	110,000	275,000
Expert per diem	78,834				78,834
Travel	55,000				55,000
Total/year	265,568	131,734	131,734	212,312	741,348
5. Training					
Internships	256,000	256,000			512,000
Travel	80,000	80,000			160,000
Workshop		350,000		350,000	700,000
Total/year	336,000	686,000			1,372,000
Total/year	7,310,868	2,617,674	1,746,742	1,717,318	13,392,602
Administration	292,435	104,707	69,870	68,693	535,705
Sundry	292,435	104,707	69,870	68,693	535,705
GRAND TOTAL/year	7,895,738	2,827,088	1,886,482	1,854,704	14,464,102

ANNEX 2. LIST OF COOPERATING AND ASSOCIATED INSTITUTIONS

This list contains an enumeration of institutes that are part of the RECOSCIX-WIO network, either as Cooperating Institute, i.e. an institute that has received computer equipment through the project and supplies input in the WIOLIB database, or as Associated Institute, i.e. an institute whose scientists make use of the project's information services or are in the project's scientists' directory WIODIR.

Eritrea

ER/ASMUNI/MBF   Asmara University, Marine Biology & Fisheries Department

Ethiopia

ET/ADDUNI/BIO   University of Addis Ababa, Department of Biology

Kenya

KE/CORECO   Coral Reef Conservation Project, Mombasa
KE/FISDEP/NAB   Fisheries Department, Nairobi
KE/EGEUNI/BOT   Egerton University, Department of Botany, Njoro
KE/EGEUNI/NRE   Egerton University, Department of Natural Resources, Njoro
KE/EGEUNI/ZOO   Egerton University, Department of Zoology, Njoro
KE/FISDEP/NAB   Fisheries Department, Nairobi
KE/KEFORI   Kenya Forestry Research Institute, Nairobi
KE/KEMFRI/BAR   Kenya Marine and Fisheries Research Institute, Lake Baringo Centre, Kampi ya Samaki
KE/KEMFRI/KEG   Kenya Marine and Fisheries Research Institute, Kegati Centre, Kisii
KE/KEMFRI/KIS   Kenya Marine and Fisheries Research Institute, Kisumu Centre
KE/KEMFRI/MOM   Kenya Marine and Fisheries Research Institute, Mombasa Centre
KE/KEMFRI/NAB   Kenya Marine and Fisheries Research Institute, Nairobi Centre
KE/KEMFRI/NAV   Kenya Marine and Fisheries Research Institute, Lake Naivasha Centre
KE/KEMFRI/SAN   Kenya Marine and Fisheries Research Institute, Sangoro Centre, Pap Onditi via Ahero
KE/KEMFRI/TUR   Kenya Marine and Fisheries Research Institute, Turkana Centre, Lodwar
KE/KENUNI/BOT   Kenyatta University, Department of Botany, Nairobi
KE/KENUNI/ENV   Kenyatta University, Department of Environmental Sciences, Nairobi
KE/KENUNI/ZOO   Kenyatta University, Department of Zoology, Nairobi
KE/KEWEWG   Kenya Wetlands Working Group, Nairobi
KE/KEWISE/MPR   Kenya Wildlife Service, Marine Parks and Reserves, Mombasa
KE/LBDEVA   Lake Basin Development Authority, Kisumu
KE/MASUNC/BOT   Maseno University College, Department of Botany
KE/MASUNC/ZOO   Maseno University College, Department of Zoology
KE/MOIUNI/FIS   Moi University, Department of Fisheries, Eldoret
KE/MOIUNI/TOU   Moi University, Department of Tourism, Eldoret
KE/MOIUNI/ZOO   Moi University, Department of Zoology, Eldoret

KE/NAMUKE	National Museums of Kenya, Nairobi
KE/SAFICF	Sagana Fish Culture Farm
KE/UNINAI/BOT	University of Nairobi, Department of Botany
KE/UNINAI/GEO	University of Nairobi, Department of Geology
KE/UNINAI/VET	University of Nairobi, Faculty of Veterinary Sciences
KE/UNINAI/ZOO	University of Nairobi, Deparment of Zoology

Madagascar

MG/CNRENV	Centre National de Recherches sur l'Environnement, Antananarivo
MG/CNRONB	Centre National de Recherches Océanographiques, Nosy-Bé
MG/IHSMTO	Institut Halieutique et de Sciences Marines, Tuléar

Mauritius

MU/ALBION	Albion Fisheries Research Centre
MU/FAIRAD	Food and Allied Industrial Ltd., Research and Development, Moka
MU/METSER	Meteorological Services, Vacoas
MU/UNIMAU	University of Mauritius, Marine Science Unit, Réduit

Malawi

| MW/ICLARM | International Center for Living Aquatic Resources Management, Zomba |

Mozambique

MZ/EMUNIV/BIO	Eduardo Mondlane University, Department of Biological Sciences, Maputo
MZ/INIPES	Instituto de Investigacao Pesqueira, Maputo
MZ/NATECO	National Environment Commission, Maputo

Seychelles

SC/DEPENV	Department of the Environment, Victoria - Mahé
SC/ORSTOM	Antenne ORSTOM aux Seychelles, Victoria - Mahé
SC/SEBUST	Ministry of Industry - Seychelles Bureau of Standards
SC/SEGEPE	The Spanish Fisheries Office
SC/SEYFIS	Seychelles Fishing Authority, Victoria - Mahé

Tanzania

TZ/NATMUS	National Museum of Tanzania, Dar es Salaam
TZ/TAFIRI/DAR	Tanzania Fisheries Research Institute, Dar es Salaam Centre
TZ/TAFIRI/KIG	Tanzania Fisheries Research Institute, Kigoma Centre
TZ/TAFIRI/KYE	Tanzania Fisheries Research Institute, Kyela Centre
TZ/TAFIRI/MWA	Tanzania Fisheries Research Institute, Mwanza Centre

TZ/UNIDAR/BOT   University of Dar es Salaam, Department of Botany
TZ/UNIDAR/GEO   University of Dar es Salaam, Department of Geology
TZ/UNIDAR/IMS   University of Dar es Salaam, Institute of Marine Sciences
TZ/UNIDAR/ZOO   University of Dar es Salaam, Department of Zoology

Uganda

UG/FIRIJI   Fisheries Research Institute, Jinja
UG/MAKUNI/ZOO   Makerere University, Department of Zoology, Kampala

Zimbabwe

ZW/LKAFRI   Lake Kariba Fisheries Research Institute,
ZW/UNIZIM/LKA   University of Zimbabwe, Lake Kariba Station,

LITERATURE SEARCHES IN 1995

The results are represented as follows: number of request (number of citations delivered)

Institute	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total/inst
KE/CRCPMO									1(110)				1(110)
KE/KEMFRI/KIS					1 (8)								1(8)
KE/KEMFRI/KEG							1(34)	1(74)					2(108)
KE/KEMFRI/MOM	4(787)	1(90)	3(463)	2(55)	4(494)	6(574)	1(83)	4(840)	4(400)	3(269)	2(25)		34(4080)
KE/KEMFRI/NAB					1(299)								1(299)
KE/KEMFRI/NAV											1(65)		1(65)
KE/KEMFRI/SAN					1(185)				1(59)	1(31)			3(275)
KE/UON	2(261)		1(46)	1(39)				1(54)		1(81)			6(481)
KE/KENUNI/ENV											1(119)		1(119)
KE/KENUNI/ZOO	1(134)								1(9)		1(303)		3(446)
KE/MOM/POLY		1(96)		1(93)									2(189)
KE/KWS	2(1445)	1(79)		1(48)	2(143)	5(269)			1(369)	1(29)			13(2382)
KE/MASUNI					1(79)								1(79)
KE/MOIUNI/FIS								1(105)					1(105)
KE/MOIUNI/ZOO							1(26)						1(26)
KE/ICUN			1(441)					1(120)					2(561)
SC/DEPENV							1(23)						1(23)
TZ/UNIDAR/IMS		1(3079)				1(98)			1(38)	1(44)			4(3259)
MAU/UNIMAU		1(572)	1(50)										2(622)
IHSM/UNITUL			1(200)										1(200)
BE/VUB	1(225)												1(225)
CUBA					1(23)								1(23)
EXTERNALS					1(10)								1(10)
Total/month	12(2852)	5(3916)	7(1200)	5(235)	12(1241)	12(941)	4(166)	8(1193)	9(985)	7(454)	5(512)		85(13695)

ANNEX 4. DOCUMENT DELIVERY IN 1995

There was a significant increase in the number of document request (46%) received at the RDC in 1995 compared to 1994. So far 2639 of these have been delivered, giving a fill rate of 78.1% which is an increase from 69.1% at the same text last year.

TABLE I. DOCUMENT REQUESTS RECEIVED OVER THE YEARS

1990	1386
1991	785
1992	1537
1993	2476
1994	2310
1995	3379

TABLE II. REQUESTS PER INSTITUTE

For an explanation of the institute codes, see Annex 2 of this report. The two letter codes are used in the graphs.

CODE	INSTITUTE	REQUESTS	PERCENTAGE OF TOTAL
KM	KE/KEMFRI/MOM	1265	37.44
KK	KE/KEMFRI/KIS	504	15.00
KZ	KE/UNINAI/ZOO	104	3.07
KS	KE/KEMFRI/SAN	556	16.45
KB	KE/KEMFRI/BAR	2	0.06
TI	TZ/UNIDAR/IMS	53	1.57
KU	KE/KENUNI/ZOO	25	0.74
KT	KE/KEMFRI/TUR	19	0.56
KC	KE/CORECO	137	3.91
MU	MU/UNIMAU/SCI	121	3.58
TZ	TZ/UNIDAR/ZOO	28	0.83
SE	SC/DEPENV	1	0.03
KP	KE/KEWISE/MPR	265	7.84
KF	KE/MOIUNI/FIS	75	2.22
SF	SC/SEYFIS	30	0.89
MC	MG/CNRONB	36	1.07
KE	KE/MOMPOL	9	0.27
	KE/KPAMOM	2	0.06
	KE/EGEUNI	4	0.19
	KE/KEMFRI/NAV	26	0.77
	MW/ICLARM	8	0.24
	KE/MASUNI	10	0.30
	ER/UNIAS	6	0.18
	KE/MINTEC	1	0.03

ET/ADDUNI	11	0.33
KE/KENPOL	3	0.09
KE/KEMFRI/NAB	15	0.44
TA/TAFIRI	1	0.03
EXTERNALS	40	1.18

KMFRI (headquarters in Mombasa and the different substations) continue to be the largest user of the service, though their overall share reduced slightly 72.29% to 70.13%. The number of organisations/programmes using this service increased to 22.

In 1995 the RDC received an average of 282 document requests per month with a maximum of 394 in December and a minimum of 146 in September. An overview is given in Table III.

TABLE III. MONTHLY NUMBER OF DOCUMENT REQUESTS

January	254	July	212
February	274	August	250
March	329	September	146
April	191	October	353
May	380	November	394
June	391	December	203

The five most important (potential) document suppliers in 1995 were:

1. RDC	1041	39.45%	(of the total number of requests)
2. LUC	513	19.44%	
3. NIO	305	11.56%	
4. RSMAS	248	9.39%	
5. Oregon	165	6.25%	

The percentage of requests serviced by the RDC has continued to increase, reaching 39.45% in 1995 (cf. Table IV). This is a positive evolution!

TABLE IV. PERCENTAGE OF DOCUMENT REQUESTS HANDLED BY THE RDC

1990	6.18%
1991	14.96%
1992	21.85%
1994	26.15%
1995	39.45%

Both the percentage and the number of documents received from LUC which is used as a source of last resort has continued to decrease, due to larger collection of document at RDC and an increase in the number of libraries providing document delivery services. More libraries from Kenya have appeared among the top 20 document suppliers as shown in Table V.

TABLE V. DOCUMENT DELIVERY ACCORDING TO SUPPLIER

CODE	SUPPLIER	REQUESTS
RD	RDC, Mombasa (Kenya)	1041
CH	Chiromo Campus Library, Univ. of Nairobi (Kenya)	1
KA	Upper Kabete Campus Library, Univ. Nairobi (Kenya)	1
KU	Kenyatta University, Nairobi (Kenya)	
KR	KARI, Nairobi (Kenya)	
IC	ICIPE, Nairobi (Kenya)	2
NM	National Museums of Kenya, Nairobi	10
UN	UNEP, Nairobi (Kenya)	6
MU	Moi University, Eldoret (Kenya)	6
IM	IMS, Zanzibar (Tanzania)	
FA	FAO, Rome (Italy)	40
LU	LUC, Diepenbeek (Belgium)	513
AR	ARC, Gent (Belgium)	
IZ	IZWO, Oostende (Belgium)	3
NO	NIOO, Yerseke (The Netherlands)	23
IO	IOS, Wormley (United Kingdom)	34
FR	Freshwater, Winnipeg (Canada)	35
RS	RSMAS, Miami (U.S.A.)	248
GU	Guin Library, Newport (U.S.A.)	
SI	Skidaway Inst. Oceanography, Savanah (U.S.A.)	81
IC	ICLARM, Manilla (Philippines)	92
NI	NIO, Dona Paula (India)	305
OR	Oregon, U.S.A.	165
AI	AIMS, Australia	13
OT	Others (Libraries and Authors)	20

ANNEX 5. DISTRIBUTION OF NEWSLETTER PER COUNTRY END 1995

Africa

Angola	1	Mauritius	64
Benin	2	Morocco	3
Botswana	2	Mozambique	39
Burundi	3	Namibia	1
Cameroun	2	Niger	25
Comoros	-	Nigeria	24
Congo Brazzaville	2	Rep. Djibouti	-
Egypt	4	Senegal	15
Eritrea	19	Seychelles	26
Ethiopia	18	Sierra Leone	3
Gambia	2	South Africa	17
Ghana	8	Sudan	7
Guinea Rep.	5	Swaziland	1
Ivory Coast	-	Tanzania	115
Kenya	396	Togo	1
La Réunion	10	Uganda	20
Madagascar	50	Zaire	1
Malawi	6	Zambia	1
Mauritania	1	Zimbabwe	6
		Total Africa	**904**

America

Barbados	1
Bermuda	4
Brazil	3
British West Indies	1
Canada	30
Costa Rica	4
Cuba	1
Ecuador	1
Jamaica	5
Mexico	7
Trinidad & Tobago	1
U.S.A.	148
Venezuela	1
Total America	**207**

Asia

India	27
Indonesia	2
Iran	1
Iraq	1
Japan	4
Korea	1
Kuwait	2
Malaysia	1
Pakistan	1
Philippines	-
P.R. China	-
Qatar	1
Sri Lanka	15
Thailand	2
Ukraine	2
Total Asia	**60**

Europe

Austria	-	Monaco	2
Belgium	54	Netherlands	-
Denmark	-	Norway	6
France	23	Portugal	2
Germany	9	Russia	5
Greece	3	Spain	1
Iceland	1	Sweden	22
Ireland	2	Switzerland	7
Italy	13	U.K.	-
		Total Europe	**150**

Oceania

Australia	-	New-Zealand	-
Fiji	4		
		Total Oceania	**4**

ANNEX 6. REPORT OF WORKSHOP

The following are the main text and the participants' list of the workshop report, titled: "KMFRI/RECOSCIX-WIO Regional Workshop on Bibliographic Database Management: Kenya Marine and Fisheries Research Institute, Mombasa, Kenya, 14-18 August 1995". The full report is available upon request from: Limburgs University Centre, The Library, Universitaire Campus, Gebouw D, 3590 Diepenbeek, Belgium.

1. INTRODUCTION

The IOC Regional Committee for the Co-operative Investigation in the North and Central Western Indian Ocean (IOCINCWIO), at its Second Session (Arusha, Tanzania, 7-11 December 1987), welcomed the outline of a project proposal entitled Regional Co-operation in Scientific Information Exchange in the Western Indian Ocean region (RECOSCIX-WIO). It called on the IOC of UNESCO (Intergovernmental Oceanographic Commission) and UNESCO to seek the extrabudgetary funding required for the implementation of the Pilot Phase. It invited the Kenya Marine and Fisheries Research Institute (KMFRI) to act as the dispatch centre for the RECOSCIX-WIO project during the pilot phase. It recognised that, for the system to work effectively in the region, long-term training in the field of marine information management would be necessary, with the view to developing a regional component of ASFIS (Aquatic Sciences and Fisheries Information System). It called on the Belgian Government to continue assisting RECOSCIX-WIO and its extension to the Western Indian Ocean (WIO) region.

The RECOSCIX-WIO project was effectively launched by the IOC of UNESCO in February 1989. The Regional Dispatch Centre (RDC) was located at the KMFRI in Mombasa (Kenya) under the co-management of an UNESCO Associate Expert. In August 1991 the project was taken over by the Belgian Government through the Flemish Interuniversity Council (VLIR, Brussel, Belgium) and the Limburg University Centre (LUC, Diepenbeek, Belgium). In January 1992 an expert of the Flemish Association for Development Co-operation and technical Assistance (VVOB, Brussel, Belgium) replaced the Associate Expert in Mombasa.

With the funding of the Belgian Government, a full implementation of the project became possible, including the training component. In August 1992 two lecturers in Library and Information Sciences instructed 15 participants from 11 institutions in the WIO region and one guest participant from the Ivory Coast in basic computer knowledge, database management using the CDS/ISIS software and cataloguing. The purpose was the establishment of a collective catalogue of library holdings of marine institutes in the WIO region (see: IOC-KMFRI-RECOSCIX (WIO), s.d.).

During the ASFA (Aquatic Sciences and Fisheries Abstracts) Advisory Board meeting in Tianjin (China, 11-14 October, 1994) the KMFRI was accepted as input centre. The aim was to become a regional input centre for the WIO region in order to cover a wider geographical area producing publications potentially of interest for input in the database, at the same time increasing the input from the centre.

In February two changes were made in the computer system of the RDC. Dr. E. De Smet, who developed a user-friendly ASFA input interface for the co-ordinating organisation of the ASFIS, i.e. the FAO (Food and Agriculture Organisation of the United Nations), installed the ASFISIS system on the local computer network in Mombasa and converted the database in MIBIS (Microcomputer-based Bibliographic Information Systems) to the new database structure. And Mr. L. Bastiaenssen, system engineer at the University Institution Antwerp (UIA) library, installed a storage-forwarding email system to connect the RDC server with the server of the UIA library, and allocated email addresses for marine institutes in the region (making the RDC server a regional node for access to the Internet). Consequently the Senior Librarian of the KMFRI attended the ASFA Training Course on ASFA Input Methodology (Dona Paula, Goa, India, 6-10 March, 1995).

In the light of these changes, mostly to use only one database structure in the network, it was decided to transfer this new knowledge to the co-operating institutes (CI) in the region during a workshop, that would also become a follow-up to the training course held in August 1992. The CIs would be collaborating in the collection of publications for input in ASFA from their own countries, and they had to be introduced to the possibilities of (indirect) access to the Internet through the RDC server. A training on these issues was due. As the RECOSCIX-WIO project was also in the last year of its Phase I, the occasion called for an evaluation of the project activities and achievements over the past period.

The workshop, entitled 'Regional Workshop on Bibliographic Database Management', was organised by the RECOSCIX-WIO project under the auspices of the KMFRI and funded by the Belgian Government through the LUC. The course was held in the KMFRI in Mombasa, Kenya, from 14 till 18 August 1995. The opening day took place in the Polana Hotel, Mombasa, Kenya.

2. PARTICIPANTS

An invitation for the workshop was sent to all institutions that participated in the August 1992 training course. The course was intended for the library or documentation staff member that was actually doing the input in the bibliographic database. The staff members of the KMFRI participated as observing participants, because they still could rely on the assistance of the lecturers after the workshop. The participants from the CIs however, needed to get as much computer practice time as possible to grow confident with the new system during the workshop, before returning to their institute, where they would have to work more independently.

Although the CIs were requested to send the same participants as in 1992 (unless these had changed tasks and were not longer active in the database input), from the CIs we could welcome only one participant back to Mombasa. Apart from the Seychelles Fishing Authority, all the other CIs had a different participant. In some instances the person participating in the August 1992 training course had shifted responsibilities and tasks. In the other cases he/she was not available for attending the workshop or the CI opted for spreading of the training of its staff.

There was one new institution in comparison to the participation in August 1992. In 1994 the Kenya Wetlands Working Group (KWWG, National Museums of Kenya, Nairobi), among other things active in the collection of literature on wetlands, showed interest to establish closer links with the RECOSCIX-WIO project. In April 1995 the ASFISIS system was already installed on the KWWG computer and the input staff member was invited to the workshop for formal training in use of the software. (The list of participants is given in Annex 2.)

3. RESOURCE PERSONS

The Senior Librarian of the KMFRI, who took the ASFA Training Course in India, was the key person for the training in the ASFA input methodology. For the part of training on computer he was assisted by the two colleagues from the KMFRI library.

The Local Project Co-ordinator chaired the sessions dealing with general project matters. Further specific topics were lectured by the persons dealing with those issues in the KMFRI library and the RECOSCIX-WIO project.

Mr. P. Pissierssens, Programme Specialist of the IOC of UNESCO, was guest speaker for a presentation of the IODE (International Oceanographic Data and Information Exchange) and MIM (Marine Information Management) programmes and gave a demonstration of the IOC of UNESCO Homepage on the Internet. (A list of resource persons is given in Annex 3.)

4. PROGRAMME OF THE COURSE

4.1. OPENING

The workshop was officially opened at the Penthouse of the Polana Hotel, Mombasa, on 14 August 1995 at 10.00 am.

Dr. P. Reyniers, Information Services Manager of the RECOSCIX-WIO project, welcomed the guests, participants and resource persons and invited them to introduce themselves. He then introduced WIOMSA and its role in the future of the project, before giving the floor to the next speaker.

Mr. M. Odido, Local Project Co-ordinator of the RECOSCIX-WIO project, briefly reminded the participants of the first training course held by the project and gave the background for the present workshop. He invited the Director of the KMFRI to officially open the workshop.

Dr. E. Okemwa, Director of the KFMRI and Kenyan Director of the RECOSCIX-WIO project, represented by Mr. R.K. Ruwa, Deputy Director, Coastal and Marine Areas, of the KMFRI, welcomed the guests that had come from abroad. He presented an overview of the history of the project, its main objectives and the activities developed in the achievement of these aims. The attention was also focused on the designation of the RECOSCIX-WIO as regional input centre for the ASFA database and the use of electronic mail for the facilitation of communication between the marine institutions. He requested the participants to review the project's achievements and would be interested to receive the report. Finally he stressed the importance of the librarian or documentation officer in the provision of information to the scientist as well as to the general public. After these remarks the Director declared the Regional Workshop on Bibliographic Database Management officially open. (A copy of the speeches is included in Annex 4.)

4.2. OUTLINE OF THE COURSE PROGRAMME

The course programme covered the following topics:

(i)   identifying and collecting publications in the field of aquatic sciences;
(ii)   bibliographic description using the ASFA input methodology and the ASFISIS database system;
(iii)   literature searching using the ASFA on CD-ROM;
(iv)   conversion of records from the MIBIS to the ASFISIS database structure;
(v)   introduction to electronic mail using the RDC local network;
(vi)   review of the project services and activities;
(vii)   presentation of IODE and MIM programmes of IOC of UNESCO.

The venue of the workshop was the KMFRI in Mombasa. The first day of the workshop however, that included the Official Opening, an introduction to the workshop and a discussion meeting on the identification and collection of publications in the field of aquatic sciences and fisheries, was held at the Penthouse of the Polana Hotel (where the participants from outside Mombasa were staying) because of transport inconveniences.

For the remainder of the workshop, theoretical introductions and other activities not requiring the use of computers, e.g. discussions, were held in the KMFRI library. During the practical sessions the participants used the computers in the RDC offices. Seven 386SX microcomputers were available to the participants; one was connected to a CD-ROM drive; another one was connected to Kenpac, the Kenyan packet-switching datacommunication network, for practice of the email using remote access to the RDC server. Apart from the computer with the CD-ROM drive, the computers were connected to the local network in the KMFRI.

The lectures and practical training were given in two main blocks, i.e. from 9.00 am till 12.30 pm, and from 2.00 pm till 5.30 pm. A tea break in the morning and in the afternoon gave the opportunity to relax a bit and get new energy for the following sessions.

The participants received a document wallet containing practical information concerning the workshop, tourist information on Mombasa (for participants from outside Mombasa) and on Nairobi (for participants who had to spend some time there waiting for their return flight), a timetable, a list of participants and of resource persons, a form for evaluation of the project (see Annex 5) and of the workshop (see Annex 6), an invitation for the Official Opening and for the Official Reception (on Thursday evening), and hand-outs for the different sessions. It also contained some stationary: name badge, pen, pencil, eraser, sharpener and ruler.

The timetable of the workshop is listed in Annex 7. The hand-outs for the different sessions are reproduced in Annexes 8 to 21.

The actual start of the workshop was an introduction giving the participants an overview of the different topics that would be covered in the course of the week. Special attention went to a presentation of the ASFIS, its history, products and the relation to this training course through the development of the ASFISIS. A short review of the RECOSCIX-WIO aims and activities had to help the participants in their evaluation of the project. Because a few participants were unfamiliar with CDS/ISIS, this software was briefly presented.

A discussion meeting was held on the identification and collection of publications for ASFA, including grey literature. Before a document can be put into the database the librarian/documentation officer must get hold of it. What is the task of an input centre? What is eligible for input in ASFA? Where do we find these documents and how do we get them? Those were the main questions that formed the basis for a discussion on the issue, in which the participants were also invited to highlight the situation in their country. A report of the meeting is presented in Annex 22.

Still in the sphere of introductions, the participants were informed on the place of ASFISIS in the ASFA input process. They were also introduced to the literature searching using the ASFA CD-ROM, so that they could take turns on the one computer with CD-ROM drive as soon as the computer practice sessions started.

All the above issues, not really needing the use of computers for demonstration, were covered during the first day of the workshop at the Polana Hotel. Starting with the session on bibliographic description using the ASFA input sheet 1, the opening session of the second day, the workshop was continued at the KMFRI. During this session all fields included in this input sheet were described in detail as concerns the sort and mode of input, based on the printed input sheet (one day later the same was repeated for the input fields of the ASFA input sheet 2, that contains the indexing information). During the ensuing computer session the participants transferred that knowledge to the 'input sheet' on the screen, offered by ODIN, the data entry interface developed for the ASFISIS system. ODIN is so user-friendly that the participants unfamiliar with CDS/ISIS were very quick to catch up with the rest of the group. Besides this facet, ODIN increases the consistency of the input by offering picklists for the entry of several fields, i.e. for a given field the entry staff may make a selection from possible entries, e.g. for environmental regime, document type, bibliographic level,... As the database grows the entry staff gets a larger selection of authors to pick from. Titles of periodicals may be selected from the ASFIS monitoring list and (geographical) descriptors are selected from the ASFIS thesaurus and from the geographical authority list respectively. ODIN opens links to these external databases at the time needed by the entry process. Once the participants got used to this mode of entry - and that was very quick - they were enthusiastic about it.

On the first day on the computer the participants were also introduced to the email, so that they would be able to use it at leisure during the rest of the computer session. A theoretical, general introduction was followed by the very practical how-to-do, using the internal mail system as well as accessing the RDC server through Kenpac, thus practising remote access.

The workshop was honoured by the presence of Dr. M. Ngoile, Director of the Institute of Marine Sciences in Zanzibar (Tanzania) and President of WIOMSA, the Western Indian Ocean Marine Sciences Association. WIOMSA plays an important role in the future of the project as it will in a few years time, when the association has grown strong enough from a financial point of view, take over the support of the project from the current donors.

Also present was Mr. P. Pissierssens, who developed the idea of the RECOSCIX-WIO and presented the project proposal to the IOCINCWIO in Arusha in 1987. He is currently Programme Specialist IODE and MIM with the IOC of UNESCO.

Both guests participated in and contributed to the discussion meeting on RECOSCIX-WIO, that was opened by Dr. Ngoile. The information services (quality, speed,...) were put in the spotlight and in the participants' opinion there is room for improvement. The project should speed up the activities by e.g. implementing faster means of communication between co-operating institutions, RDC and co-operating libraries, and possibly by direct mailing from co-operating library to requester. On the other hand the services should be promoted more agressively to the scientists in the region. The libraries in the region however, should diversify their channels of information gathering by direct communication, within as well as outside the region. One means to do so is the use electronic communication. The IOC of UNESCO has taken steps to bring email within the reach of institutions in the region, and this effort should be taken advantage of. Training is another issue that keeps the attention of the participants. WIOMSA and the IOC of UNESCO both are prepared to support

training for librarians in view of the important role of the information agent in the scientific production process. Even though the project is nearing the end of its current phase, the possible future developments of the different activities are discussed. A more detailed overview of the opinion of the workshop participants on the project and a report on the meeting are included in Annex 23.

Information is not only intended to be put in a database, but also to be retrieved from it. Analogue to ODIN for the input, a user-friendly interface programme called IRIS, facilitates the output. Due to a drawn out discussion meeting on the RECOSCIX-WIO and a late lunch, little time was left for the theoretical introduction and the computer practice on this topic. However the programme is so user-friendly that it is almost self-explanatory.

Implementation of a new database structure means that something has to be done with the old one. Rather than continue working with two databases, it is recommendable to transfer all data from the old database to the new one. Unfortunately it does not come that easy, as the two database structures are not completely compatible. The participants were shown step by step how they should go about converting the data from the MIBIS database for import in the ASFISIS system, according to a method developed by Dr. E. De Smet (University of Antwerp, Belgium). The participants were given easy-to-install diskettes containing the files with the new database structure as well as the files needed for the conversion.

One of the inconveniences of the maintenance of the WIODIR directory database is a misinterpretation of certain data fields by scientists. The participants were explained in detail the contents of the different fields in the WIODIR, so that they can assist the scientists in their institution in the filling of the update forms.

The participants were encouraged in future to use electronic communication to send their document requests to the RDC. They were explained how to identify the different fields of a request form and how to forward to the RDC.

Mr. P. Pissierssens, Programme Specialist of the IOC of UNESCO, presented the activities of his organisation related to information handling, more especially the IODE and MIM programmes. He stressed the transition from a librarian/documentation officer to a data manager. He also put emphasis on the role of the Internet in the current communication process. This he put in practice with a demonstration of the IOC of UNESCO's Homepage on the WWW (World Wide Web), that was installed on one of the computers in the RDC. Unfortunately because there is no Internet provider in Kenya, the full advantages of this medium could not be exploited, but Mr. Pissierssens stimulated the participants to install the same on their computer, so that they can familiarise themselves with this medium and get ready by the time they are actually going to the Internet.

Before proceeding to the Official Closing Ceremony of the workshop some time was foreseen to evaluate the past week. The participants had been given a form for commenting on the different issues of the workshop. Their comments are reproduced in Annex 24. In general the workshop was received very well with quotations for the different subjects all over average. A few remarks should not discourage lecturers, nor participants. Also the participants seemed to be pleased with the practical organisation. The future will have to show whether the participants were actually trained well enough to go back and start working with the new system in their own library. The user-friendliness of the software however, is a big asset to that.

4.3. CLOSURE

After a very busy week, time had come to close the workshop. The Workshop was closed on 18 August 1995 at 4.00 pm during a session presided by Dr. E. Okemwa, Director of the host institute KMFRI. After a few words on the meaning and importance of the workshop by Dr. P. Reyniers and Mr. P. Pissierssens, who also thanked the KMFRI for inviting the IOC of UNESCO to this workshop, Mr. R.K. Ruwa, Deputy Director of the KMFRI, invited Dr. E. Okemwa to close workshop. In his closing speech Dr. Okemwa reviewed past, present and future of the RECOSCIX-WIO project, its importance for the region and the way it supports the capacity building in marine sciences. He stressed on the new step that had been taken by the acceptance of the RECOSCIX-WIO as ASFA input centre. This election brings an important responsibility to the RECOSCIX-WIO and the RECOSCIX-WIO is not only the RDC, but the complete network with the co-operating institutes. It is only by real collaboration that the RECOSCIX-WIO network will be able to make a meaningful contribution to the ASFA database and become an accepted partner in the ASFIS. Finally the participants received a course certificate out of the hands of Dr. Okemwa, after which the workshop was officially concluded, but not before Mr. Yonas, the participant from Eritrea, finished reading a farewell (see Annex 25).

5. GENERAL CONCLUSIONS

Once again it has become clear that keeping the attention of the (possible) user requires a lot of effort. More scientists might be using the project's services if the quality is boosted, but also if they are constantly reminded of the project's existence and capacity to support them in their work. This is a role that is not solely the responsibility of the RDC and its staff, but also, and maybe more directly, of the librarian/documentation officer in the scientist's institute. The RDC should however, concentrate on the improvement of the services by use of modern means.

As to the main topic of the workshop it is clear that the transfer to the ASFISIS system is more than welcomed because of its user-friendly nature, that at the same time increases the consistency of the input by offering pick-lists. This same feature also ensures that the participants will be able to easily transfer the knowledge they acquired in Mombasa to their colleagues that stayed behind. It is also hoped that the new system will increase the quantity of input into the collective catalogue and that the workshop will have motivated the participants to hunt documents for input in the ASFA database, thus putting the WIO region more distinctively on the face of the earth.

Reference

IOC-KMFRI-RECOSCIX (WIO) - *Regional Training Course on Microcomputer-based Marine Library Information Management : Kenya Marine and Fisheries Research Institute, Mombasa, Kenya, 10-21 August 1992* - s.l.: UNESCO, s.d.- (Intergovernmental Oceanographic Commission Training Course Reports; 17)

LIST OF PARTICIPANTS

PARTICIPANTS

ERITREA   -   Mr. Hailu Hadera YONAS
                        University Library, University of Asmara
                        P.O. Box 1220, Asmara
                        tel. +291-1-161926; fax +291-1-162236

KENYA   -   Mrs. Doreen ANYONA
                        Chiromo Campus Library, University of Nairobi
                        P.O. Box 30197, Nairobi
                        tel. +254-2-449005; fax +254-2-336885

                   -    Ms. Gloria FERNANDES
                        Kenya Wetlands Working Group, c/o EANHS
                        P.O. Box 44486, Museum Hill, Nairobi
                        tel. +254-2-749957; fax +254-2-741049
                        email: biodive@tt.gn.apc.org

                   -    Ms. Margaret MULWA
                        University Library, Kenyatta University
                        P.O. Box 43844, Nairobi
                        tel. +254-2-810901; fax +254-2-810759

MAURITIUS   -   Mrs. Meera KOONJUL
                        Faculty of Science, University of Mauritius
                        Réduit
                        tel. +230-4541041 / 4649958; fax +230-4549642

                   -    Mr. Subhas Chandra BAULJEEWON
                        Albion Fisheries Research Centre
                        Petite Rivière, Albion
                        tel. +230-2336829 / 2336100; fax +230-2336184

MOZAMBIQUE   -   Mrs. Felicidade Nazaré MUNGUAMBE
                        Instituto de Investigacao Pesqueira
                        Av. Mao Tse Tung 387, C.P. 4603, Maputo
                        tel. +258-1- 490307 / 490536; fax. +258-1-492112

SEYCHELLES   -   Ms. Marlène AGLAE
                        Division of Environment
                        P.O. Box 445, Victoria - Mahé
                        tel. +248-224644; fax +248-224500

                   -    Mrs. Josette CONFAIT
                        Seychelles Fishing Authority
                        P.O. Box 449, Victoria - Mahé
                        tel. +248-224597 / 224134 / 224205; fax +248-224508
                        email: confait@seychel.orstom.fr

TANZANIA   -   Mr. Julius FRANCIS
                    Institute of Marine Sciences
                    P.O. Box 668, Zanzibar
                    tel. +255-54-30741 / 32128; fax +255-54-33050
                    email: julius@unidar.gn.apc.org

OBSERVING PARTICIPANTS

Note: The RECOSCIX-WIO and KMFRI library staff participated in the course as observing participants.
         The rationale for this decision is the availability of the resource persons through the year. These
         members of staff can always rely on support of the senior staff within the own institute.
         The participants from outside KMFRI however, needed to gain confidence in the use of the ASFISIS
         system during their stay in Mombasa.

-    Ms. Catherine KAUMBUTHU
     RECOSCIX-WIO, Regional Dispatch Centre
     P.O. Box 95832, Mombasa (Kenya)
     tel. +254-11-471129 / 472527; fax +254-11-472215
     email: ckaum@lib.ua.ac.be

-    Mrs. Eunice N. KINYANJUI
     Kenya Marine and Fisheries Research Institute
     P.O. Box 81651, Mombasa (Kenya)
     tel. +254-11-475152 / 475153; fax +254-11-472215

-    Mr. James MACHARIA
     Kenya Marine and Fisheries Research Institute
     P.O. Box 81651, Mombasa (Kenya)
     tel. +254-11-475152 / 475153; fax +254-11-472215

-    Mrs. Anne W. MUCHIRI
     Kenya Marine and Fisheries Research Institute
     P.O. Box 81651, Mombasa (Kenya)
     tel. +254-11-475152 / 475153; fax +254-11-472215

-    Ms. Phyllis C. MUTERE
     RECOSCIX-WIO, Regional Dispatch Centre
     P.O. Box 95832, Mombasa (Kenya)
     tel. +254-11-471129 / 472527; fax +254-11-472215
     email: pmutere@lib.ua.ac.be

SECRETARY

-    Mrs. Jane K. NZAU
     RECOSCIX-WIO, Regional Dispatch Centre
     P.O. Box 95832, Mombasa (Kenya)
     tel. +254-11-471129 / 472527; fax +254-11-472215
     email: jnzau@lib.ua.ac.be

REPORT ON THE COORDINATION MISSION OF L. EGGHE FOR THE PROJECT RECOSCIX-WIO

8 - 28 FEBRUARY 1995

The coordination mission started on Monday February 13 and continued until Monday February 27. The days February 9, 10 and 11 were used for private reasons and are not counted for. Including travel time, the coordination mission comprised 18 days and was divided as follows :

Feb. 13 - Feb. 22 : activities in Mombasa (at RDC, the Regional Dispatch Centre of RECOSCIX-WIO situated in KMFRI).

Feb. 22 - Feb. 25 : activities in Zanzibar (IMS) and Dar es Salaam (university), cooperating and associate institutes in RECOSCIX-WIO : evaluation meetings on RECOSCIX-WIO.

Feb. 26 - Feb. 27 : activities in Nairobi : Embassy of Belgium and university of Nairobi : evaluation meetings on RECOSCIX-WIO and the Internet.

In addition to this discussions were held in the university of Dar es Salaam and the university of Nairobi on the possible support for the education in library and information sciences.

Text in boldface indicates a decision or action that has to be taken.

DISCUSSIONS IN MOMBASA.

These discussions can be divided into three parts : evaluation of the activities of RECOSCIX-WIO in 1994, planning the activities for 1995 and, finally, discussions on RECOSCIX-WIO-II, a proposed continuation of the present project.

Evaluation of 1994.

1.   We start with a negative point : the unannounced and severe electrical power cuts are disrupting the normal activities of RECOSCIX and in fact of any business that is affected. This continues for months now and was also very apparent during our coordination mission : there were several (half) days without power and even during

a day for which the electricity company assured us that there were not going to be interruptions, the power was cut for more than half a day. In addition to the evident retardations that such power cuts are causing they almost destroyed the plans of two visitings (see further), sponsored by IOC. Only after serious adaptations (working in other places in town, having evening and even nightly working sessions) the problem could be tackled in a satisfying way.

2. M. Odido, the local coordinator, reported on an IOC-sponsored visit of the East-African region. His main task was to evaluate the CI's (Cooperating Institutions) and to explore the possibilities to include ocean data in the information network. Especially the first task was asked for by RECOSCIX and we report briefly on it (for a more extensive description, see the report of M. Odido).

    -   Eritrea requests to have a CI in order to collaborate with RECOSCIX-WIO. The needs for this have already been recognised and its implementation is planned in the continuation of RECOSCIX (see further). **The proposed CI will be the Research Unit of the Ministry of Marine Resources**, which is reported to be the most active research institute in this field.
    -   IMS on Zanzibar is currently preparing a diskette for WIOLIB.
    -   The same can be said about the CI on the Seychelles. This institute complains about some delays in the DD (Document Delivery). Speed is very important but from some statistics that have been prepared it follows that 2 requests out of 3 are delivered within 2 months, a reasonable time period. Nevertheless, whenever possible, one should try to reach faster services. In the connection of the activities of one of the visitings (installing Internet addresses on the server) **it is advised that e-mail should be used whenever possible : this is the case in contacts with Mauritius, the Seychelles, IMS, LUC, NIO (Goa, India). A special e-mail form will be prepared for DD as well as for QH (Query Handling).**
    -   In Madagascar it was noted that more activities are going on in the University of Tulear than in the present CI (CNRO). This must be evaluated later on in relation with the planned workshop in 1995 (see further).
    -   About the other CI's there is not much to tell. In general it is regretted that the participation in DD and QH of the CI's outside Kenya is relatively low but it is also a fact that there are also less activities going on. Their continued participation in the project is however considered as a success. In addition to this, **a brochure about the activities of RECOSCIX-WIO is being prepared and will be mailed to interested parties, including the CI's.**

3. Since March 1994, Mr. Lucas Kilemba has been appointed as the new senior librarian of KMFRI. The decision had been made in 1993 (during the coordination meeting of that year) and can be considered as a big achievement. Indeed, Kilemba gives a professional and energetic impression which guarantees that KMFRI's library will be professionally managed and also makes it possible for the collections of RECOSCIX-WIO to be located in this library, a natural thing. The library is managed through a library commission and has adopted some rules (and even fines). Also a p.r. folder has been made and distributed. The library already gives a much better impression than one year ago. It was decided to involve the senior librarian in the discussions on RECOSCIX and in its activities. It is requested that the meeting room (which is in

the library) should be taken out of the library and - if this is not possible - that library staff could be present during public meetings (in order to make sure that the library is not misused). **The director agrees to have 2 library staff members present during those meetings.** It is also requested to have one more library staff member in the library to compensate for the loss of Mr. R. Kimani who is attached to KMFRI (Kisumu). Finally, there is a need for rules for the staffing of the library during lunch hours : the library is now open during lunch hours ; this has been decided in order to promote visits to the library by scientific staff members.

4. It is noted that the production of the journal WINDOW costs too much money, which in any case is lacking after 1995. A proposal is made in order to reduce the costs (see further).

5. The problems with the photocopy machine are over for the time being. In recent months, however, this machine was in bad shape and caused expensive repairs. We had discussions with a representative of MITA copiers in order to see what could be done. From these discussions it became clear that - at least for the coming two years - it is best to maintain the present machine (if this remains feasible) rather than buying or renting a new one, which was shown to be very expensive (especially when the new machine will only be used by RECOSCIX hence on a lower basis of number of copies). **It is suggested by the director to make a proposal to IOC-SAREC to provide a new copy machine, whenever RECOSCIX-WIO-II is approved by the Belgian government. It is also possible to ask OCE (the company under contract in LUC) to provide old MITA, Nashua or RX machines. This possibility will also be investigated.**

6. **It is decided to subscribe to the same journals as done so far, hereby also keeping WIOCURRENT as it is.** Based on some DD statistics there is some evidence for buying also "Marine Pollution Bulletin" (15.500 Bfr. per year), "Journal of Fish Biology" (24.200 Bfr. per year) and "Estuarine Coastal and Shelf Science" (19.800 Bfr. per year) but the cost is very high and in addition, the first journal arrives in KMFRI with a delay of only 1.5 years (gift from FAO). It is also reported that the CC (Current Contents - Agricultural sections) are well used and distributed in KMFRI and that one continues to request reprints from the authors based on this publication.

7. The use of QH and DD is about the same as the previous year. <u>It is good to notice that a higher fraction of requested publications is satisfied from within the region : now about 30 %.</u>

8. The outlook for the local continuation of RECOSCIX is good : the present team comprising M. Odido and K. Onyancha and in addition the presence of L. Kilemba as senior librarian gives good prospects for the future.

9. Since December 1994, RECOSCIX-KMFRI has been appointed as an ASFA input centre (the only one in Africa so far). This is very important and guarantees international visibility. It has some influence in library activities (especially WIOLIB) on which is reported further.

Plans for 1995.

1. At present, two visitings are working in RECOSCIX : Dr. E. De Smet and L. Bastiaenssen. The first visiting is extending computer memories, merges WIOLIB databases, installs the ASFISIS format for records in WIOLIB and gives tutorials. The second visiting organises the network in RECOSCIX and offers virtual Internet (50 addresses) via a computer in the university of Antwerp. Both visitors are sponsored by IOC. In addition to this a contract between IOC and the university of Antwerp has been made on the realisation of the Internet connection. See the reports of both visitors for more details. **During this visit it has been decided to implement the ASFISIS structure for WIOLIB.** The reason is of course the above mentioned ASFA link but also the international character of ASFISIS. This also has some consequences for the library since ASFISIS can be used as an OPAC. It must be studied later how to introduce local holding labels in this system.

2. This is the last year of RECOSCIX-WIO-I. In this year (formally ending July 31st but **it will be requested to continue until December 1995**) we can make use of some leftovers of the previous years. **It has been decided that a basic collection of aquatic science books will be bought (about 50 for KMFRI and about 5 - 10 for each other CI), totalling about 250.000 Bfr.. It will be guaranteed that KMFRI receives 50 % of this budget. The selection of titles will be an action of the senior librarian.** It are indeed books that are the most difficult-to-obtain documents in the DD service. In addition to that, basic books have a low obsolescence rate.

3. The scheduled workshop for 1995 is prepared. This workshop is meant as an update of the previous one (1992) but will contain lots of innovative events. **It should be attended by those staff members in the CI's who are responsable for the WIOLIB input. The period has been fixed on end of August or the beginning of September. The coordinator is requested to be present but there is also the last evaluation mission of the coordinator which will take place preferably at the end of 1995. A final decision on this will be made after contact with Professor Polk who plans the celebration of 10 years KBP around August. Topics for the workshop include :**

    -   **ASFISIS,**
    -   **Internet,**
    -   **Evaluation of what is done so far,**
    -   **How to collect the information resources in the different countries in East-Africa (techniques) ? (Important for KMFRI as ASFA input centre for this region),**
    -   **Learn how to work with data on CD-ROM (e.g. TOGA data).**

4. The cost of the journal WINDOW is too high : it amounts to 1.000.000 Kshs. per year. Also, even when RECOSCIX-WIO-II is approved, there is no money for the production of WINDOW : due to requested budget cuts (requested by VlIR - the Flemish Interuniversity Council) and because of the manifest interests of WIOMSA in WINDOW, the production of WINDOW has not been budgetted any more. Of course, WINDOW must continue. There are several possibilities. There is first of all the offer of IOC to produce and distribute WINDOW in Paris (IOC). There is the

fear in the region that, because of this, the regional character of this publication will be in danger. Still it is very clear that WINDOW is dealing with the Western INDian Ocean Waters. **It is decided that the director and Dr. Ngoile will have another dicussion with P. Pissierssens (IOC) on this issue. Or one accepts the IOC offer in which case the production of WINDOW can be continued as before, or one decides to continue the local production, but then the costs must be heavily reduced. This can be done as follows :**

- **making shorter texts (newsletter style) as is also the case with analogous pulications of other regions in the world,**
- **use cheaper paper,**
- **make more use of DTP possibilities also for printing,**
- **mailing will also be cheaper, because of the lower weight of the issues,**
- **reducing the length of the mailing list by requesting to fill in a form.**

5. The production of the second issue of WIODIR is now possible : most of the records are in updated version in the computer (including ASFA indexing and coding), but there remains the problem of printing the WIODIR book. The first issue was printed and distributed by UNEP but it is not at all clear that this will be the case now. This is, however, the time of the year to apply : in February, the budgets of UNEP are known. **It is decided that P. Reyniers will request UNEP to print and distribute the second edition of WIODIR. In case of a refusal, IOC will be asked to do this or, as a last resort, LUC is also prepared to do the printing (distribution must then still be looked into). The printing is scheduled for June, after a last update has been sent in March : together with this update, there will be the request to send also the publications for WIOPUB. This can also be important in the connection of the ASFA input centre.**

6. **The CI's will be updated on the value of WIOCURRENT : it is a publication that must circulate, not filed ! It is also decided to subscribe to the journal UNIXWORLD (1.900 Bfr. per year) in order to enable S. Ngete to keep himself updated on these issues.**

7. **It has been decided that K. Onyancha will visit Belgium in May 1995 in order to get some experience in library work (much of his education was too theoretical).** His main interests are : DIALOG, QH, statistics, editing WINDOW. **His visit will also include the visit of some UK libraries if the necessary money for this can be found.**

8. **The annual report of RECOSCIX-WIO OF 1994 will be written by P. Reyniers. This will also be the case for the annual report of 1995 assisted by M. Odido for adding the latest numbers (after Reyniers has left for Belgium).**

9. **ASFA will be requested to produce an ASFISIS manual. ASFISIS will also be used as an OPAC system in the library.**

10. There have been discussions on the tasks of the RECSOCIX staff. The following changes have been decided to : **K. Onyancha will assist K. Kaumbuthu in the preparation of the accession lists and in the classification of books in**

RECOSCIX. He will also become responsable for the ASFISIS and CDS/ISIS software updates and give more assistance in the production of WINDOW. Possibly also Harrison Ong'anda can be involved in the CDS/ISIS software updates. **The staff members Musoti, Mutere, Nzau and Muchiri (library) will also be doing WIOLIB inputs in addition to their present tasks. In order to facilitate this an old 286 computer will be installed in the library.**

11.   Internet can be used from now on (cf. point 1 above). Since the connection still uses X.25 technology, it is not free of charge. Therefore it is necessary that its use is limited to professional communication. **It is decided that - in the starting phase - every user must sign a logbook. Later on we will evaluate this.**

12.   Many PC's are affected by virusses and the virus checkers that are available are not always that up to date. **It is decided that the university of Antwerp, at regular times, will send virus checkers over the Internet. IOC agrees to put WIOLIB and WIODIR on the UNESCO server of Internet. In this context also WIOPUB is very interesting.**

13.   Regarding the topping-up of the salaries it is repeated that this topping-up is a reward (for performed activities) and not a right. The updating of the list of these staff members that deserve a topping-up is a matter of KMFRI. **M. Odido will prepare the updated list in collaboration with the director.** The review of the available amount is a matter of LUC.

Discussions on RECOSCIX-WIO-II

The proposal for the continuation of RECOSCIX is discussed. The coordinator regrets that many wanted activities are not included anymore but stressed that this was only caused by the obligation (by the VLIR) to reduce the budget from 19 Mfr. to 8 Mfr..

One of the consequences of this was that the whole part on public awareness (p.a.) and public relations (p.r.) had to be skipped. The director stresses the fact that p.a. and p.r. are still part of RECOSCIX but that the funding will have to come from somewhere else : e.g. WIOMSA.

It is also requested to change the use of the 4 PC's : instead of 2 PC's for Eritrea and 2 to replace older equipment this should be changed into : 1 PC for Eritrea (since there is only one CI) and 3 to replace older equipment.

About data on CD-ROM it is suggested to cooperate with ORSTOM.

There is a need to clarify what is meant by "central" CI : this means that in each collaborating country one must identify the most active or important CI.

The problem of the photocopying machine (cf. above) should be studied since there is no money reserved for this in the continuation.

It is suggested that IOC informs the organisers of the 1997 datamanagement course about the results of a course organised by them in April 1995.

DISCUSSIONS IN IMS (University of Dar es Salaam - Zanzibar) (24/2)

The meetings were held in IMS and for IMS there were present : the librarian and the deputy director. The following points have been discussed :

1.	The number of users of RECOSCIX in IMS is increasing. In addition to this, several AI's (e.g. TAFIRI, KUNDUCHI) are increasingly using RECOSCIX via IMS.

2.	Telecommunication problems have so far unabled IMS to login in the Mombasa computer (it is a server now). This is an important issue but the deputy director says that soon this situation is going to be improved.

3.	A very bad thing (as is also the case in Mombasa) is the severe shortage of electrical power. There is no power between 12 a.m. and 8 p.m..

4.	It is regretted that p.a. is no longer a part of RECOSCIX-WIO-II. It is explained that p.a. can still be organised but from different budgets (e.g. WIOMSA).

DISUSSIONS IN THE UNIVERSITY OF DAR ES SALAAM (Dr. Newa) (23/2)

During a meeting with the library staff the history of the "Department of Information Studies" has been sketched. The importance of an information education has been recognised by the university of Dar es Salaam. There is need for national capacity building. Up to now the students follow the courses in the university of Addis Abeba (Ethiopia) which is very costly (about $ 300.000 has already been paid so far for this). In addition to that, the graduates of this education remain in private centres ; hence, the public libraries hardly benefit from this investment.

The university council approved already in 1985 this education but so far, due to lack of resources, the start has not been given. One has now plans to start in October 1995 if funds are found. At the start one can count on the availability of 6 Ph.D's but one hopes for additional qualified staff from Belgium. In addition to this the department hopes to recruit staff from other departments in the university.

There has been a project proposal made to the VlIR but it was rejected. Main reasons were : too many visitings (also : too costly) and the doubts if this education is needed in Tanzania. On this last point, the library staff could give enough arguments in favour : information is the basis of all knowledge, many important functions in public life require information : government, hospitals, research, ...

In order to reduce the costs one suggest to lower the requirements of equipment : **request are made for 5 PC's, 3 printers, 1 LCD (if necessary only B/W), the LISA CD-ROM and the support in administration as described in the proposal. The requested visitings are also diminished : one only requests support in "information technology" (4 visitings) an "design and evaluation of information systems" (1 visiting).**

Following these discussions there was a short meeting with the Dean of Sciences of the University of Dar es Salaam. RECOSCIX-WIO was evaluated : one expressed the high value of this project and the satisfactory service. The networking has been recognised as a problem

: it is the purpose of one of the visitings (in Mombasa right now) to solve some of the problems. In addition to this, it is important that Tanzania invests in better telephone lines.

One has made the very important statement that future developments in the library of IMS will be monitored by the main library of the university. This is of immediate importance since the librarian of IMS, Mrs. E. Nyika, will be leaving for Canada in a few months and hence, she will be out of office for 2 years. **The replacement (incl. the person to be sent to the workshop in Mombasa) will be guided through the services of Dr. Newa.**

At the end of the day a courtesy visit has been paid to the Belgian Embassy in Dar es Salaam.

DISCUSSIONS IN THE BELGIAN EMBASSY IN NAIROBI (27/2)

The delegation visited the Belgian Embassy, more in particular the Belgian Cooperation : there were interesting discussions with Mr. Verleysen, head of the Cooperation. He was informed about the present developments in RECOSCIX : ASFA input centre, increased Kenyan staffing, problems with the power supply, ... It is very positive to remark that the fraction of documents, delivered as a result of a DD request, coming from the region has increased from a few percentages three years ago to about 30 % now.

One also discussed the importance of continuation as soon as the Belgian support ends (1998 or 1995, dependent on approval for continuation or not, respectively). Although there is always a risk that the activities will stop there are the following "guarantees" that this is not likely to happen : world visibility as an ASFA input centre, CD-ROM production (in the continuation) is fund generating, the interest of WIOMSA in RECOSCIX : they are now officially recognised by IOC-SAREC as a regional interested body and hence receive money accordingly. Another possibility is that KMFRI is turning its activities towards more applied research for which it is easier to raise extra funds.

Finally, Mr. Verleysen informed the delegation of the priority position of Kenya : the Belgian Embassy can spend 1.65 Billion Bfr. for basic projects (water supply, private sector). In addition to this there are limited budgets available for p.a. and p.r. actions especially aimed at primary and secundary schools. Since this was precisely the type of activity that had to be abandonned in the proposal for continuation of RECOSCIX (see above) **it was decided to go into this possibility : one should think of a budget of about 300.000 Kshs. A proposal will be formulated, after the consultation of the director of KMFRI and P. Pissierssens of IOC (who is very much interested in these actions).**

DISCUSSIONS IN THE UNIVERSITY OF NAIROBI (27/2)

Long but interesting discussions were held with the DVC of academic affairs and the one of administration and finance. The discussions mainly dealt with the administrative management problem of universities.

Later in the discussions it became apparent that the university of Nairobi is interested to organise a university course on the M. Sc. and Ph. D. level in Library and Information Sciences. **It was decided that the DVC of academic affairs will send a project proposal to L. Egghe who will then try to combine this proposal with the one for the university**

of Dar es Salaam. It is estimated that in this way, by combining the efforts and making the project regional, that the chances for approval increase.

Later in the afternoon, there was a discussion with S. Ochuodo (Kenyatta University) who wants to organise an Internet node in Kenya. His requests for money are still not reachable for RECOSCIX and it is hoped that he will succeed by attracting private companies. The support of the government is not enough. Satellite connections are cheaper but regulations are too strict nowadays.

The last day was closed by paying a visit to LOS : "Law of the Sea", a Belgian project in the university of Nairobi.

ANNEX 8. DR. DE SMET'S REPORT OF FEBRUARY MISSION

Report to UNESCO/IOC on the mission to RECOSCIX, Mombasa, february 1995

by Egbert de Smet, consultant
March 1995

- The aim of the mission was to convert the MIBIS-based data-bases at the Regional Dispatch Centre of RECOSCIX, KMFRI (Mombasa, Kenya) towards ASFISIS-databases, to install the ASFISIS application on the RECOSCIX-PC network and to train the RECOSCIX-staff to work with the new ASFISIS-based system.

- The first working day was mainly spent in gathering, after some first quality control, the data from the different RECOS-CIX-PC's. No backups were available, which in view of the frequent power failures (which can, even after total re-orga-nisation and optimisation of the UPC's by my collegue, only partly avoid file disturbances) is nothing less than irrespon-sible. On each of the PC's several damaged files were found, but happily the database-files were o.k. Slightly more than 4200 records were found to be useable and of quite decent quality, which is an encourageing fact, proving that some substantial work was already done at RECOSCIX.

- In view of the power failures mentioned it was decided to use the notebook computer of the author as much as possible for further work : mainly the merging and conversion. This work has been performed at the hotel room during 'no-power' periods. Later on it proved necessary to perform some tasks, which were unavoidably to be held at the RECOSCIX-PC's them-selves (such as setting up the network and installation of the ASFISIS-system), during non-working hours and even at night (when power became available again).
The MIBIS-structure was studied in detail and preliminar tests and preparations were held to see their effects for a real conversion. This preparatory study work is to be considered as a much more time-consuming work than the actual conversion.

- A detailed discussion of the (merging and) conversion is held in a separate report, which will be necessary to the RECOSCIX-staff when they will convert other RECOSCIX-CI's databases; this separate report however constitutes a crucial part of this report.

- After the conversion the ASFISIS-system was installed on one of the PC's and from there on copied to the other PC's, using the network-facilities and the server. The UNIX-server provi-des a subset of its file-system, also called ASFISIS, as a virtual, MS-DOS accessible diskdrive to the XFS-networked PC's. On these PC's small batch-files were produced, which start the XFS-networking software (first drivers, then the network kernel) and activate one of different possible CDS/ISIS 'SYSPAR.PAR'-files.
A dedicated 'SYSPAR.PAR'-file was produced for each of follo-wing possible configurations :
    - exercise database : everything locally based on PC
    - network database : all files, except ASFISIS-database

files (ASFISIS\DATA\ASFA*.*) held locally, the database-files held on the server and acknowledged as D:\ASFISIS\DATA\ASFA*.*
- CSA-database : meant to contain records to be sent to CSA (the American ASFA-database publisher) and invoked as a separate database-subdirectory on the server.

- Each PC then was tested for the different configurations. Speed of the data input module of ASFISIS, requiring a fast PC, was slow as expected (the PC's being the slowest 386-based variants, i.e. SX-16Mhz), but still acceptable. For the searching interface, the speed of the PC's is considered to be generally acceptable. It was also noted however that the inclusion of the abstracts in the index on a full-text indexing basis (i.e. each word separately if not present in a stopwords list) puts a very heavy burden on the PC's when a full index generation is required. Normally the ASFISIS-input module inverts each new record directly after input, causing no major waiting delays, but it will always be necessary to re-invert the whole database from time to time. This process is expected to take several hours on the RECOSCIX-database (at the moment between 4 and 5 thousand records), which in view of the power failures is too risky. The deletion of the FST-line which is responsible for this full-text indexing was therefore suggested and explained to the RECOSCIX-staff leader.

- The new ASFISIS-system, especially the input and retrieval modules, was demonstrated at the last official day of the visit of Mr. Willy Goetstouwers, Administration Head of the University of Limburg (LUC). In addition to Mr. Goetstouwers, also the KMFRI-Director Mr. Okemwa and the RECOSCIX-co-ordinator prof. L. Egghe were present at this demo.
The use of the ASFISIS-thesaurus as the most advanced feature was shown as an integrated tool for data entry.
Using the author's name 'OKEMWA' (yielding 7 items) and the geographical item 'Belgium' (yielding 2 items) typical searches were performed as a demo on the retrieval module of ASFISIS. From a point of view of ASFISIS-techniques and -features, all went well in this demo-session.
In spite of another power failure during the demo (which was to be continued in the afternoon), this result is considered as very satisfying, proving that the system actually works. The first ASFISIS-installation in Africa was a fact. The advanced network-setup (entirely based on an Internet-compatible TCP/IP set-up) backing this installation is another worthwile aspect to be mentioned.

- During the last few working days of my stay, and when power was available - this really became a substantial problem ! - the use of mainly the data input interface, to a lesser extent the information retrieval interface, was explained to the RECOSCIX-staff. Some of them have had a few guided excercises.

- Dedicated sessions were held with the RECOSCIX-staff leader and the KMFRI-computer specialist on how the ASFISIS-system was set up and can be maintained and adapted to local needs.

It was stressed to refer to the documentation files 'ODIN.DOC' and 'IRIS.DOC' respectively. These files were also introduced with some comments.

- Finally an unsuccessful effort was done to recover the WIODIR-database, which was held on a (previously untouched) PC showing many FAT-table errors. Only ca. 50 records could be recovered (out of more than 250 originally present), using all possible tricks of Microsoft Scandisk, Norton Disk Doctor etc. Again the absence of a backup proved to be disastreous.

- At the last day of the stay two meetings were held in Nairobi :
    * a discussion with Dr. Ochuodho, chairman of the Kenyan Computer Society and main promotor of the Internet-idea in Kenya; his progress (successful use of dial-up access to a USA-based internet host and a growing user base) was reported, whereas the RECOSCIX-approach (X-25 through Kenpack) was explained. Possible financial input from RECOSCIX into the Kenya-Internet efforts was again declared as neccessarily limited, but some co-operation (e.g. in organising training sessions on telecommunication) was proposed and agreed.
    * a meeting with Mr. Hassan Bendahmane, UNEP, on the work done on the INFOTERRA-thesaurus, which is a CDS/ISIS based thesaurus on environmental management. This thesaurus is different in scope from the ASFA-thesaurus, but after the current revision the new INFOTERRA-thesaurus will be studied for possible use in the ASFA-system whenever desired. Some technical compatibility issues were mentioned and agreed to be taken care for. Also it was noted that the INFOTERRA-thesaurus project now has links with an Italian Windows-based system and with the OECD-thesaurus tools, which can foster later co-operation.

- As a general conclusion I want to stress following points :
    - The many power failures, as a sign of economical problems in the country, not only put a heavy burden on the proper work of RECOSCIX, but also have made our stay and work at RECOSCIX a lot more difficult than was envisaged; the technological basis of RECOSCIX will be impossible to maintain if this situation doesn't stop.
    - In view of the previous point the RECOSCIX-system manager should really follow very tight schedules of backing up and take, as many as possible, preventing measures.
    - Conversion from MIBIS to ASFISIS proves to be rather well possible, due to a partly comparable database-structure (e.g. the bibliographic levels); using the dedicated documentation on the two-step procedure, it should be rather manageable to repeat the conversion for other databases.
    - Installation of ASFISIS as such does not pose severe problems, when decent PC's are available. Integration of ASFISIS with the existing databases and requirements

(e.g. the need of local library fields in the databases), and in general the relation of ASFA-aimed records and other database-records is still problematic. Some solutions tried at RECOSCIX (mainly the setup of different ASFISIS-configurations using different batch-files and SYSPAR.PAR-files) can provide useful experiences for other institutions, but many questions remain unanswered.

UNESCO/IOC and their ASFA-partner FAO really have to investigate these integration problems to more extent. Several centres using a CDS/ISIS-based system for some time at least are actually facing the same problems. The advantage of already knowing CDS/ISIS software (and therefore better appreciating the ASFISIS-added interfaces...) is of course a major relief, but on the other hand the shift towards and integration with existing applications require more guidance and working solutions.

REPORT ON THE COORDINATION MISSION OF L. EGGHE FOR THE PROJECT RECOSCIX-WIO

13 - 23 DECEMBER 1995

Introduction

The main purpose of this mission was twofold :

- Making an end evaluation of the project RECOSCIX-WIO (in view of the continuation - see below - henceforth called RECOSCIX-WIO-I) and to take decisions in order to close the project in an administratively correct way,

- Preparing the start of RECOSCIX-WIO-II, the continuation of the former project. To put it right : it was only on Thursday 21 December that the proposed continuation was signed by the secretary of state, Dr. R. Moreels, but in order to make this coordination mission as fruitful as possible, and because all advices for the continuation were positive, we decided to prepare this continuation in every possible detail (at this stage).

Indeed in this period all the involved parties are in Mombasa : the RECOSCIX-WIO-I staff, incl. the local coordinator (M. Odido) who just returned from a study trip to Sweden and the senior librarian, L. Kilemba, P. Reyniers, the manager of the project (up to the end of this year), Director E. Okemwa of KMFRI, J. Van Borm, director of the library of UIA and chairman of VUBIS-A, an involved party in RECOSCIX-WIO-II. In addition to these people also E. Van Den Berghe (VVOB and working in the National Museum in Nairobi), who is much interested in the continuation of the project is present (for one day).

The meetings were preceded by introductory talks of E. Okemwa, L. Egghe and J. Van Borm on the history, present state and future of RECOSCIX-WIO.

Plain text in **boldface** refers to actions that have to be taken.

Evaluation and closure of RECOSCIX-WIO-I

The evaluation is based on a text that was prepared previously by the RECOSCIX staff in collaboration with P. Reyniers. The text is enclosed in the annex. We check the different points of discussion :

- QH (Query Handling) is handled by K. Onyancha in a successful way. The only problem is that, right now, he is in Brussels for the MIST course and he will only be back from April on. It will be M. Odido who will instruct L. Kilemba, the senior librarian, on this matter in order to overcome this period. DIALOG's online services are not used so often since the project is well-served by the ASFA CD-ROM on which it does not cost anything to get some practice.

- DD (Document Delivery) is handled very well by J. Macharia, who works very hard. By the use of e-mail in the last year of the project (installed in February) the DD speed has increased substantially. The mails to LUC are 100 % electronic. A substantial improvement would be the **uploading of the IMPALA software so that the manual retyping of the requests in LUC can be avoided. This will be executed in the beginning of 1996 (in the continued project RECOSCIX-WIO-II), by VUBIS-A.**

- Current Awareness is handled by K. Onyancha, J. Nzau and K. Kaumbuthu in a very satisfactory way. **The checking of the Current Contents - until now executed by P. Reyniers - will be taken over by H. Ong'anda. M. Odido will check the list of ordered journals (on which WIOCURRENT is based) for optimality.**

- WIOLIB. Here is a warning : one must take good care of the quality of the database, for its own sake of course but also because RECOSCIX has become an ASFA input centre. This lack of quality can cause a problem in the continued project - see further - but will nevertheless be solved. Regarding the ASFA input centre : one must urge the scientists of the region to send in more regional publications. Responsabilities are taken by K. Onyancha and J. Mwobobia. **It will be checked with FAO whether or not RECOSCIX can get a free subscription to ASFA (because of being an ASFA input centre).**

- WIODIR. Here K. Onyancha and L. Kilemba are responsable with data input by J. Nzau. A new update is coming up beginning 1996. The printing and mailing is done by IOC (UNESCO).

- Administration. Many aspects are discussed here. There is first of all the use of the e-mail. **VUBIS-A, who already in RECOSCIX-WIO-I had a contract with IOC on this matter, is expected to produce some statistics on this.** One knows already that lots of uses are non-professional and also that about 50 % of the e-mail addresses are not used. The non-professional uses of the e-mail generate unnecessary X-25 connection costs and also result in a loss of working time. **It is decided that some e-mail addresses will be deleted and that there will be an informative letter to**

those that have an address that private use is not allowed and that - in principle - it can be detected in Antwerp. One could also reduce the connection times and the number of mails per day : this will be discussed with S. Ngete. **In RECOSCIX-WIO-II, a Home Page of RECOSCIX and of KMFRI on the Internet will be constructed.** On the budgetting aspect, there is in global about $ 6,500 left which will be spent on the purchase of some consumables. A list is enclosed in the annex. This money is in addition to the purchase of a power generator on which Mr. Molderez (ABOS) insisted after his visit to the project in May 1995. An official allowance (by ABOS) for this purchase has been given to L. Egghe. The decision was made to purchase a YAMAHA diesel power generator of 11.0 KVA, based on the offers of the two companies that are available in Mombasa. The total cost will be 475,000 Kshs. plus 25,000 Kshs. installation costs. The descriptions are added in the annex. One discusses briefly the problem of the photocopy machine. Right now it works but it requires a lot of maintenance. Furthermore one expects that the machine will not last a very long time. Also, in RECOSCIX-WIO-II there is no budget for buying a new machine. The present needs are about 100,000 copies per year. Maybe a solution can be found on a rental basis once the problem is acute. **L. Egghe will investigate whether or not IOC can provide a machine.**

- With the definitive leave of P. Reyniers one must prepare very carefully the production of the annual report (especially important now that the project is continued). Lots of text, however, is the same every year. **The new texts will be produced by L. Kilemba. M. Odido will do the overall controll as well as the production of the statistics. LUC must check the 2 tables about the finances. Deadline for this report is set on April. In addition to this it is decided that M. Odido will produce a report on RECOSCIX-WIO-I of about 10 pages, being a summary of the whole project (4years). IOC will be asked to have it printed in colour.**

- The journal WINDOW is a very important tool for the project. However, due to budgettary restrictions, it is not supported anymore in RECOSCIX-WIO-II. This is because IOC has taken over the printing and mailing. The collecting of the articles and the editing is still continued in Zanzibar and KMFRI, but there are complaints on these activities mainly due to the weak contacts with WIOMSA (with M. Ngoile in Geneva) and due to the low performance of P. Mutere. For more on these two matters : see the report on the preparation of RECOSCIX-WIO-II. **One decides that the collecting of the articles must be carried out in RDC as long as WIOMSA is not performing on this point and that a p.r. officer will be added to the RECOSCIX-WIO-II staff (see further) : Mr. Munene. S. Ngete will be responsable for the editing of WINDOW, assisted by Eunice Onyango (added to the RECOSCIX staff also). S. Ngete will also check if E. Onyango can be educated for UNIX and for smaller hardware repairs.** One does not think it is important to add WINDOW to the CD-ROM that will be produced in the continued project but one thinks that the availability of WINDOW on the Internet is important. Also some summaries of scientific articles can be added (but no full text articles).

- Book purchase. The project has purchased some basic books on marine sciences (list enclosed in the annex). Indeed, unlike journal articles, it is much more difficult to reach basic books through DD. The total purchase is for an amount of around 400,000 Kshs. The main part is for KMFRI, but several CIs have also ordered about 10 books. The package will be sent to Mombasa by air mail through the bookseller in Belgium. **A covering letter will be written by L. Egghe** (is already executed during the stay in Mombasa) **mentioning that it are books that are donated under the RECOSCIX project, that they are for scientific purposes only and that these books are not for resale. In addition to this the books will be accompanied by a packing list, without reference to the prices. These books will be mentioned in the newsletter WINDOW.**

- Follow-up of the workshop. A separate evaluation report is available. There are sometimes conversion problems to ASFISIS : this is the case in the Seychelles and in Mozambique. **One decides to send a reminder to the CIs on the necessity of using ASFISIS. In addition to this the CIs will be reminded to the fact that THEY are responsible for the editing of the records.** In total there are about 6,000 records in WIOLIB. It is also noted that Albion sends different people to the different workshops : this is not very efficient. Worse is it with Madagascar from where no participant was present. It was already noted in the project description of RECOSCIX-WIO-II (which is available in the annex) that a strenthening of the contact with Madagascar is needed, probably with another CI (e.g. Tulear).

- Discussion on social aspects of the project. LUC has provided some money in order to back-up some social problems and for paying a topping-up of the salaries. It is stressed that the payment of medical bills cannot be executed through this budget, except in some very special (urgent) situations. Topping-up of the salaries can continue as long as the LUC money is available. These limited amounts are responsable for the fact that an increase in the topping-up will not be possible. **L. Egghe will look into this. The further follow-up of the medical aspects is a matter for the director. The topping-up of the salary of M. Odido should be taken care of by the LUC money since he did not receive any money from WIOMSA who was supposed to pay. P. Mutere will not receive any topping-up since she does not belong to the project staff any more (for this see the annex and the discussions in the connection of RECOSCIX-WIO-II). This is due to the poor performance on the editing job of WINDOW. J. Mwobobia (who does not belong to the RECOSCIX staff but who works in the library, and hence is entitled to a small topping-up) will not receive it either because of the poor results and the fact that she is almost never present.**

- KMFRI library and the merging with the RECOSCIX library. A lot has already been merged. The library functions have been installed. **L. Kilemba is requested to organise a session on the OPAC use of WIOLIB. Also S. Ngete should go into the possibility of receiving the OPAC screen as soon as the PC is turned on. Two more airconditioners (on a rental basis) will be installed in the library. This will improve the archival qualities of the materials. In February, L. Kilemba will continue the selection for the library of the books that were donated previously.**

Preparation of RECOSCIX-WIO-II

These meetings are based on the original project proposal, written by L. Egghe, as it has passed the boards of VlIR and ABOS and which was written in close collaboration with IOC. The text is added in the annex.

L. Egghe gives an extensive overview of the proposal as it is signed by the secretary of state. All budget posts have ben accepted except one : the last one : evaluation (1%) for an amount of 72,573 Bfr. So the indicated budget proposal of 7,692,685 Bfr. should be decreased by this small amount. But, in contrast with the case of RECOSCIX-WIO-I, now we must budget the salary of the Belgian manager which is also approved in RECOSCIX-WIO-II. In total the granted budget is then 13,165,771 Bfr.

The project has two parts : database services and information services. The first part focusses on the organisation of the database WIOLIB which is going to be enlarged and produced on CD-ROM. For this part, a contract with VUBIS-A must be signed. The enlargement of the WIOLIB database consists of adding new bibliographical databases as well as databases containing data. For more details, we refer to the project proposal, available in the annex. The second part continues the well-known services of RECOSCIX (as e.g. described above) but adds some new features : improving contacts with the CIs, adding Eritrea to the services and increasing the number of associate institutes (AIs).

We report now on **preliminary** discussions concerning this project.

A.   Discussions on Part I : database services.

-       It is remarked that lots of data exist in the region and that collaboration with OCAPAC (UNEP) might be advisable. In this connection some money from IOC can be expected. One also refers to the many actions of N. Daro on the management of data. **The preparation of an inventory of requested databases that must be on the CD-ROM is necessary (WIOLIB, WIOPUB, WIODIR, TOGA, WOCE, ... ?).** There is the issue of intellectual property : for WIOLIB, ... this is KMFRI or all the CIs united (?), for TOGA, WOCE, ... formal agreements are necessary and finally, for databases as ANTILOPE, BLDSC, Wageningen, ... approvals must be obtained. **This will be done by the UIA. It is repeated here that, due to the poor quality of the WIOLIB database, many manual corrections will be necessary. A CD-ROM product that can be seen so widely in the world (ASFA input centre) must be of high quality. One also mentions the necessity that the e-mails in the connection with DD should be uploaded in IMPALA. This will be taken care of by VUBIS-A.**

-       **A new server must be bought in Belgium (because of the planned 2-years experimentation in Antwerp before implementing it in Mombasa).** VUBIS-A prefers COMPAC machines because of their experience with it. There is a COMPAC office in Mombasa so that maintenance should not be a problem. It is adviced to buy software for the CD-ROM recorder as late as possible since things change very quickly in this domain. The same remark goes for the CD-ROM players. In addition to this the advice is given to buy, from now on, only PCs with an internal CD-ROM

player. The study period of two years in Antwerp means an investment of working time by staff of VUBIS-A that is not budgetted as such but the reward is the new experience that is obtained from this. This experience will be shared by the RECOSCIX staff that will be sent to Antwerp (2 persons). One person should have a good technical background ; the second one too but must also have additional qualities in teaching these skills to others. The staffing of RECOSCIX-WIO-II will be adapted accordingly (see further and see staff list in the annex). Probably S. Ngete and E. Onyango will be the 2 persons **but J. Van Borm is asked to describe the content of this training and the presupposed knowledge.**

- **A bilingual manual must be produced (E - F) on paper (short text) as well as on the CD-ROM.**

- The publicity aspect will be left to the services of KMFRI. One considers 2 updates per year.

- The datamanagement training course is not the first one in the region : there was one this year organised by IOC. The planned course should be a continuation of it and it is advised that it is best to select the same persons in the central CIs. **For each country one must still decide which CI will be considered as "central".** This restriction was necessary due to budgettary reasons. **This issue will be discussed during the next IOCINCWIO conference in Madagascar (september 1996). E. Okemwa suggests that L. Egghe will attend this conference in order to present his new project and give an overview of the results of the first part. IOC will be asked for financial support since this trip is not budgetted in RECOSCIX-WIO-II. In addition to this IOC will be asked to support this datamanagement course.**

B.   Discussions on Part II : information services.

- Eritrea. Since budgets are available for a visit to the CIs, it is advised to visit the new CI very soon in order to determine the needs. **Before this visit, however, M. Odido will send letters to the two candidate institutions (University of Asmara and the Ministry of Marine Resources) requesting to express their interest in the project. As is known : for a CI we also request active participation (input in WIOLIB of the local literature).**

- The problem with WIOMSA is again discussed here. The director summarises the proposed solution : IOC will send Mr. Arico to Zanzibar and will be in charge of WIOMSA. Transferring the seat of WIOMSA to Mombasa is not possible. In any case, due to the continuation of RECOSCIX, the problem is not so acute : WIOMSA is supposed to take over RECOSCIX from the moment that the Belgian Government is not funding this project anymore. It is good that RECOSCIX is continued because right now WIOMSA cannot take over. One must see to it that this will be the case in three years.

- On the improvement of the contact with "difficult" countries it is remarked that some countries now have an Internet node (e.g. Mozambique). Kenya is on its way to have it soon (cf. actions of C. Ochuodho : **it is advised to take contact with him in order to be informed on the conditions of collaboration on this issue : what are the**

prices, can the link with Internet via UIA be stopped then based on these prices, ...). One asks the director to push this issue in the Kenyan Ministries (e.g. Ministry of RTTT).

- As far as WINDOW is concerned, the editing process still can be improved. This is scheduled due to the nomination of 2 new RECOSCIX staff members. The printing and mailing of WINDOW is executed successfully by IOC. One expresses the wish of Mr. Akiwumi (UNEP) to make the newsletter a bit more scientific by reporting on ongoing research : e. g. quarterly reports on the ongoing projects.

We now report on **more detailed** aspects of the discussions on RECOSCIX-WIO-II.

- As mentioned already an exhaustive list is produced mentioning all the staff members who will be active in RECOSCIX-WIO-II, including their tasks. We wellcome the new members : M. Munene (p.r. officer), R. Kimani (librarian III) and E. Onyango (computer operator). Also enclosed is a list with the proposals for the topping-ups of the salaries. As mentioned above an increase in these topping-ups will not be possible but L. Egghe will do his best to keep the level as in RECOSCIX-WIO-I. The final decision on this is the responsabiblity of LUC. In total there are now 12 Kenyan RECOSCIX staff members. **In addition to the described tasks, L. Kilemba will replace P. Reyniers until the new Belgian manager is present.**

- The new project manager (the Belgian) will not be an emplyee of VVOB, as was the case with P. Reyniers. The new manager will be paid directly by the project's budget and will be an LUC employee. The vacancy and candidate proposals will be arranged through the services of the VIIR. The project manager will be responsable to the director as well as to the coordinator. **L. Egghe will prepare a text (in English) describing the tasks of this manager and will send it to KMFRI. There the board of management will study this proposal. Once the name of the manager is known then L. Egghe will send all details (incl. c.v.) of this person to the director.**

- **It is decided (see also above) that 2 new airconditioners wil be placed in the library. This will be arranged on a rental basis. KMFRI will be responsable for the reconstructions of the windows. In addition to this it is the responsability of the senior librarian to check what materials can be put in the library and what not :** it is so that the most valuable books and journals should be placed in the library since, due to the airconditioning, the library will have the better archival conditions. **The installation will be supervised by L. Kilemba.**

- It is decided that from now on only the logo as in Fig. 1 (in the annex) will be used to represent RECOSCIX. The logo in Fig. 2 can still be used to symbolise the newsletter WINDOW.

- It is decided that, as soon as the contracts have been signed, a buffer for the budget in Kenya will be transmitted from LUC to the foreign account of KMFRI. Of course, P. Reyniers must be removed from the list of authorised persons on this account since he does not work for RECOSCIX anymore.

-   In RECOSCIX-WIO-II, a yearly visit to all the CIs is budgetted in order to improve the contacts. Who should perform these visits ? **It is decided to approach IOC to double this budget so that 2 persons can visit, at least in the first year. In case this is approved, M. Odido can go on IOC budgets and the manager on RECOSCIX budgets. If, however, IOC refuses to sponsor this then M. Odido will visit the CIs in the first year on RECOSCIX budgets and a decision for the next two years will be made after this.**

-   Concerning the MOU (Memorandum Of Understanding) for RECOSCIX-WIO-II, E. Okemwa announces that a new MOU is not necessary. As explained in the MOU of RECOSCIX-WIO-I, an exchange of letters by authorised officials of KMFRI and LUC is sufficient. For KMFRI this will be the director ; for LUC this will be the president. **E. Okemwa will look into the possible content of these exchanged letters as well as into the existing MOU for possibly necessary annexes.** L. Egghe announces that, in Belgium, a contract ABOS-LUC will be made and signed.

-   The discussions are closed as follows :

    -   RECOSCIX-WIO-I is officially closed by means of exchanging the letter describing the handing over of the RECOSCIX-WIO-I equipment. This letter and list of equipment is added in the annex.

    -   One is hopeful for the future due to the approval of the continuation of the project : L. Egghe could announce - on the very day that he is leaving for Nairobi and Brussels - that the secretary of state has signed the project the day before (on Dec. 21). L. Egghe also underlines the big changes that are coming up with the introduction of the electronic networks : new philosophies will be necessary, new policies and ethical approaches as well. He requests the director to follow-up these new technologies and to convince the governmental bodies in Kenya that these will be important aspects of the future, not only in science but also in the every day life of everyone.

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16.12.1995 - 23.12.1995
J. Van Borm, Directeur UIA-bibliotheek

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1. **Participatie UIA en UA in LUC-projecten in Kenya en directe UIA-betrokkenheid in Dar es Salaam**

   De participatie van UIA en UA in Recoscix 1 en 2 en de directe betrokkenheid van de UIA bij de mogelijke oprichting van een Department of Information Studies aan de Universiteit van Dar es Salaam zijn de redenen voor participatie aan deze zending in het kader van het LUC-project RECOSCIX.

1.1. Recoscix 1
De UIA-bibliotheken zijn in Recoscix 1 betrokken via reizen van Prof.Dr.R. Philips (telecom) en L. Bastiaenssen (installatie TCP/IP - X.25 server voor RECOSCIX), via een contract met IOCINCWIO (UNESCO) voor TCP/IP services t.b.v. RECOSCIX en via een stage van Sam N'gete in 1994 op de UA.

1.2. Recoscix 2
De UA-bibliotheken zullen in de loop van Recoscix 2 zorgen voor de aankoop van CD-ROM apparatuur, de aanmaak van CD-ROM's en de transfer van apparatuur en CD-ROM know how naar het Kenya Marine and Fisheries Research Institute (KMFRI) in Mombasa (Kenya).

1.3. Department of Information Studies. University of Dar es Salaam (Tanzania)
De UIA, als inrichter van de enige Vlaamse opleiding in informatie- en bibliotheek-wetenschap, zou graag mede-oprichter zijn van een gelijkaardige opleiding aan de Universiteit van Dar es Salaam. Nu Tanzania één van de prioritaire landen is geworden in het beleid van de nieuwe Minister voor Ontwikkelingssamenwerking (R. Moreels) is de kans op succes voor dit project gestegen.

2. **Kenya Marine and Fisheries Research Institute (Mombasa: Kenya)**

2.1. Programma
2.1.1. Maandag 18 december 1995
2.1.1.1. Vergadering (voormiddag)
Meeting met de KMFRI-directeur, dr.E. Okemwa.
Bezoek aan het Instituut: laboratoria, bibliotheek, administratie.
Beknopte evaluatie van RECOSCIX.

2.1.1.2. RECOSCIX 1: finale vergadering (namiddag)
Tijdens deze vergadering wordt een overzicht gemaakt van de stand van zaken en de resultaten van RECOSCIX 1. De Belgische en Kenyaanse delegaties zijn het eens over het uitermate positieve verloop van RECOSCIX 1 (1992-1995), een bijzonder belangrijk project sinds de oprichting van KMFRI in 1980. Doel van RECOSCIX 1: informatie-

opslag m.b.t. de marine-biologie en de visserij in de regio van de West-Indische Oceaan (WIO) in databases (WIOLIB, WIOPUB, WIODIR), bibliografische referentiedienst en documentlevering. In de resterende dagen tot het einde van het project op 31.12.1995 dienen nog een aantal beslissingen te worden genomen.

Ondanks het globale positieve resultaat van RECOSCIX 1 wordt ook gewezen op tekortkomingen die een invloed kunnen hebben op het verloop van RECOSCIX 2, de opvolger voor de periode 1996-1998. De WIOLIB-databank heeft door een conversie structurele fouten meegekregen en is opgevuld zonder veel kwaliteitscontrole. Sommige participerende instellingen zijn niet erg actief. WIOPUB (publikaties i.v.m. marine-biologie en visserij uit de WIO-regio) is geen echt succes. WIODIR (een adressenbestand van participerende instellingen en vorsers uit de WIO-regio) is recentelijk helemaal bijgewerkt en wordt allicht ook weldra op papier gepubliceerd.

2.1.1.3. Diner (avond)
KMFRI-diner en afscheidsfeest voor Dr.P. Reyniers, de Belgische VVOB permanente op het RECOSCIX 1 project in Mombasa.

2.1.2. Dinsdag 19 december 1995
2.1.2.1. RECOSCIX 2 (1996-1998)
Het project RECOSCIX 2 wordt in detail voorgesteld aan de topmedewerkers van KMFRI. Naast de voortzetting van de bibliografische referentiedienst, de documentleverantie, de aanmaak van de WIO-databanken is er ook een belangrijke nieuwigheid: in de loop van RECOSCIX 2 dienen de UA-bibliotheken CD-ROM aanmaak apparatuur aan te schaffen, CD-ROM's van de WIO-databanken aan te maken en apparatuur en CD-ROM know-how te transfereren naar KMFRI in Mombasa.

2.1.2.1.1. WIOLIB
De deels corrupte, deels foutieve WIOLIB-databank zal moeten in orde worden gebracht (zie sub 2.1.1.2) vooraleer er met de aanmaak van de eerste CD-ROM kan worden gestart. De foutieve data-structuur (onnodige verdubbelingen van sommige velden) dient door de UA-bibliotheken gecorrigeerd. De UA-bibliotheken samen met de LUC-bibliotheek moeten een methode uitwerken om de kwaliteit zelf van de bestaande beschrijvingen te verbeteren (b.v. door middel van een spellings checker). Het KMFRI- en RECOSCIX-team moet zelf voor de kwaliteitscontrole van de nieuwe beschrijvingen zorgen.

2.1.2.1.2. WIOPUB
De WIOPUB databank is nagenoeg leeg. KMFRI en de lokale RECOSCIX-projectleider (Mr.M. Odido) moeten op zoek naar andere relevante databases die een plaats verdienen op de CD-ROM. Gedacht wordt aan PC-based databases van vorsers met meetresultaten die ook elders nuttig kunnen worden gebruikt.

2.1.2.1.3. WIODIR
De WIODIR databank moet door het project verder worden onderhouden en bijgewerkt vóór de publikatie van elke nieuwe WIO-CD-ROM.

2.1.2.1.4. Documentbestelling
Qua documentbestelling dient nagegaan in welke mate en op welke wijze het Antwerpse IMPALA-documentbestelsysteem kan worden aangewend om dubbel werk tussen KMFRI en de LUC-bibliotheek te vermijden.

2.1.2.1.5. TCP/IP - X.25 server
De test van M. Pissierssens met een rechtstreekse Internet-link vanuit Mombasa is voorlopig niet geslaagd. De vergadering vraagt daarom om de X.25 - TCP/IP server op de Universiteit Antwerpen ook voor 1996 te laten bestaan. Daartoe moet in januari 1996 een nieuwe samenwerkingsovereenkomst opgesteld tussen de UIA en IOCINCWIO in Parijs.

2.1.2.1.6. WINDOW
Het tijdschrift WINDOW zal verder blijven bestaan, maar wordt gefinancierd met ander geld en voortaan in Parijs gedrukt.

2.1.2.2. Diner
LUC-lunch met alle RECOSCIX-medewerkers met toespraken van Dr.E. Okemwa en Prof.dr.L. Egghe.

2.1.2.3. Andere items
Discussie over overblijvende items: o.a. de prestaties van de RECOSCIX 1 medewerkers.

2.1.3. Woensdag 20 december 1995
2.1.3.1. Zanzibar
Voormiddag: reis naar Zanzibar samen met Sam N'gete (RECOSCIX-medewerker)

2.1.3.2. IMS
Namiddag: bezoek aan het Institute for Marine Sciences in Zanzibar.

2.1.3.2.1. Contactpersoon: Mr. Julius Francis, dienstdoende directeur.

2.1.3.2.2. IMS
Het IMS is een ondersoeksinstituut van de Universiteit van Dar es Salaam. Het heeft vier secties en loopt al jaren mee in projectwerk. Julius Francis heeft de WIO-database opleiding gevolgd in Mombasa, maar de eigen imput van data in de drie WIO-databanken is beperkt gebleven.

2.1.3.2.3. Telecom
De telecom-verbindingen met Kenya en Tanzania zouden verbeterd zijn, maar na installatie van een telecom-programma slaagt Sam N'gete er toch maar niet in om een dataconnectie met KMFRI op te zetten. De CD-ROM produkten van RECOSCIX 2 zullen hier nog een tijd goede diensten kunnen bewijzen.

2.1.3.2.4. Bibliotheek
Het IMS beschikt over een redelijk goed gevulde bibliotheek, maar is helaas nog geen echt actieve medewerker aan WIOLIB.

2.1.3.2.5. Diner
Sam N'gete, Julius Francis en een tweede medewerker zitten aan bij een diner 's avonds.

2.1.4. Donderdag 21 december 1995
2.1.4.1. Dar es Salaam
Vroege overzet (7u) naar Dar es Salaam.

2.1.4.2. Bibliotheek van de Universiteit van Dar es Salaam
De Universiteit van Dar es Salaam bevindt zich op een heuvel net buiten de stad. De Bibliotheek kan gerust de vergelijking doorstaan met deze van de Universiteit van Namibië in Windhoek: ruim, goed gevuld, gevormd personeel, talrijke lezers.

2.1.4.3. Briefing
T.a.v. acht medewerkers van de universiteitsbibliotheek (ook potentiële docenten van het nog op te starten Department of Information Studies) en onder leiding van Dr.J. Newa, directeur van de bibliotheek geef ik informatie over twee topics:
- het nieuwe RECOSCIX 2 project
- de kansen voor Belgische steun voor het Department of Information Studies.
Nu Tanzania in het beleid van Minister R. Moreels een prioritair ontwikkelingsland is geworden zijn de kansen op Belgische participatie gevoelig gestegen (in te dienen in 1996, hopelijk start met het academiejaar 1997-1998).

2.1.4.4. Terugreis naar Mombasa

2.1.5. Vrijdag 22 december 1995
Terugreis naar Nairobi en Brussel

2.1.6. Zaterdag 23 december 1995
Aankomst op Zaventem te 6u.

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RECOSCIX
Final report on the UIA-activities

1.   Preparation

Public domain sofwares for both the server and the PC's were identified and collected during the months of January and February 1995. These softwares allow email, NFS and WWW to be used by members of WIO.

The mail gateway was created and tested in Antwerp in February 1995.

2.   Mission to Kenya (13/2/1995-28/2/1995

Highlights from the mission reported from 7 March 1995:
- Problems encountered during the installation were solved. These problems were related to the X.25 card, provision of backups from the different PCs to the NFS server, X.25 link with KENPAC, PC network cards. The power supply remains a problem, though security measures were taken to prevent loss of data.
- All softwares were configured and installed successfully
- RECOSCIX members were trained in using the new softwares

RECOSCIX is now ready for the Internet: it is now possible to send and receive email messages through the Internet using the server at the UIA as a gateway. A local WWW-environment has been installed but is not connected to the Internet due to the lack of an Internet provider in Kenya.

3.   Reports

A report on the mission to Kenya and a manual documenting the mail-mirror system were produced in March 1995 and have been sent to UNESCO.

4.   Technical support and administration services

After the initial installation UIA has been giving support to RECOSCIX-WIO on a request basis: new users were created on a ongoing basis and ca. 50 email messages were sent by UIA to provide assistance in solving problems. When more complicated problems were encountered, the UIA logged in remotely to the RECOSCIX-WIO server.

Although originally the maximum number of users was set to 50, the RECOSCIX-WIO system now services email for 60 users. The time spent for user maintenance is 5 hours.

System maintenance is mainly related to filtering of email messages, X.25 problems and technical support for the maintenance of the server software. The time spent to system maintenance is 50 hours.

The time spent to general support (solving problems through email or by remote login) is 10 hours.

5.   Statistics

Statistics on the use of email from 1 March to 20 December 1995 can be found in Annex 1.

RECOSCIX: Mail Statistics in 1995

Name	Received	Sent	Bytes	Total Bytes
alaila	3	2	9290	46452
bohowa	1	1	2002	4005
bokoth		3	1404	4214
ckaum	224	253	958	456966
cmagori@main.bib.uia.ac.be		1	421	421
cochieng	5		3709	18547
crcp	3	4	8460	59226
dfo.lib.nanaimo@resonet.com		1	450	450
dtackx@vnet3.vub.ac.be		1	1976	1976
eokem	69	60	5397	696253
ewak	44	31	4914	368619
ewak@main.bib.uia.ac.be		1	509	509
fdehairs@vnet3.vub.ac.be		1	757	757
gmwatha	37	49	3389	291494
gonda.geets@bio.kuleuven.ac.be		2	2038	4076
hemminga@nioo.nl		1	1958	1958
honganda	232	105	8316	2802766
iams	705	1	13214	9329523
iams@lib.ua.ac.be		1	173	173
infot	339	8	18190	6312268
infot@main.bib.uia.ac.be		1	183	183
isis	469	3	15746	7432309
jkasyi	22	15	7953	294281
jkazungu	31	25	7792	436379
jkitheka	1	1	1610	3220
jmwaluma		2	510	1020
jnzau	58	66	4327	536637
jokechi	12	40	3084	160373
jokondo	7	6	7592	98697
jradull	19	17	5497	197893
juku		2	755	1510
jwakibya		6	842	5057
kbp	111	166	3996	1107048
kmfri	25	19	13874	610478
konya	85	101	5346	994382
kruwa	10	10	4451	89038
lkilemba	47	52	2362	233889
mjanet	29	58	2395	208438
mkoko	18	19	4232	156605
mmosoti	1	3	21071	84287
mnguli	2	1	2212	6636
modido	142	113	7715	1967552
mosore	130	168	5406	1611145
p.pissierssens@unesco.org		2	3609	7219
payombe		1	204	204
pmutere	106	122	2757	628687
ppink@aol.com		1	2429	2429
ppolk@vnet3.vub.ac.be		3	6561	19683
preyn	352	437	7084	5589587
preyn@main.bib.uia.ac.be		1	806	806
psmsl@pol.ac.uk		1	1958	1958
pvouplin@vub.ac.be		1	848	848
rdc	440	159	18371	11004601
ricardo	202	98	11165	3349656
rvagh		7	192	1346
smtp smwangi	43	37	6215	497216
sngete	313	255	5589	3175000

Name	Received	Sent	Bytes	Total Bytes
stevenr@interport.net		1	1683	1683
swann@iniki.soest.hawaii.edu		4	915	3662
ulce@oce.gu.se		5	644	3221
vattero@vnet3.vub.ac.be		1	2211	2211
websterj@ccmail.orst.edu		1	1251	1251
wischkaemper.kay@epamail.epa.gov		1	2463	2463
wshim	11	24	4278	149736